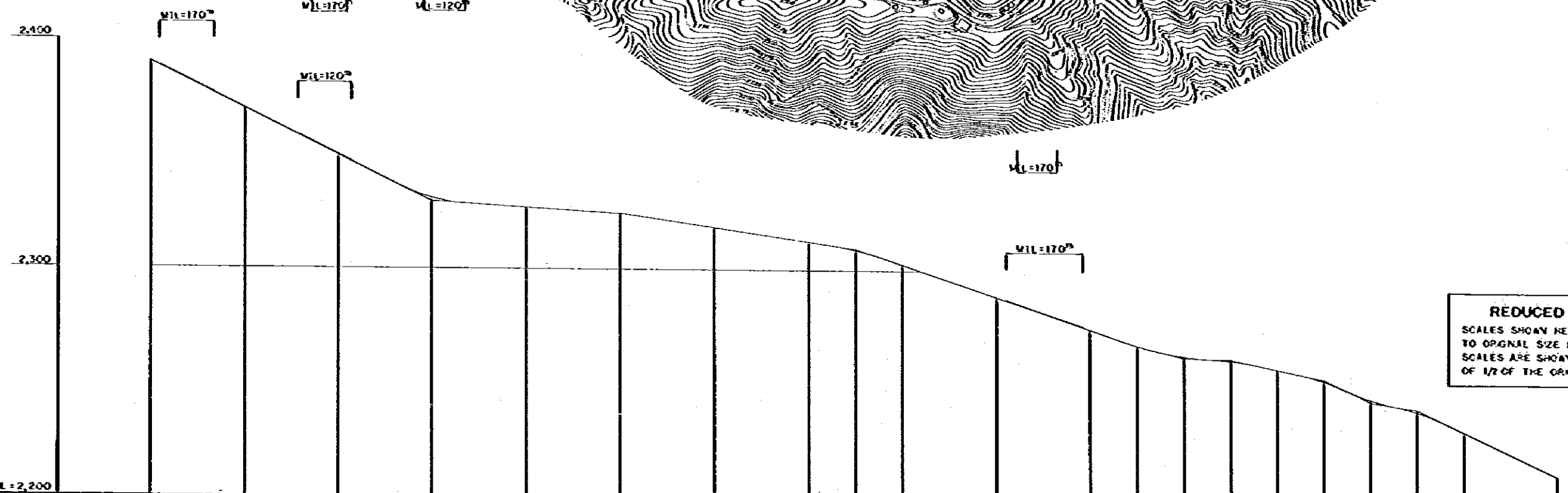
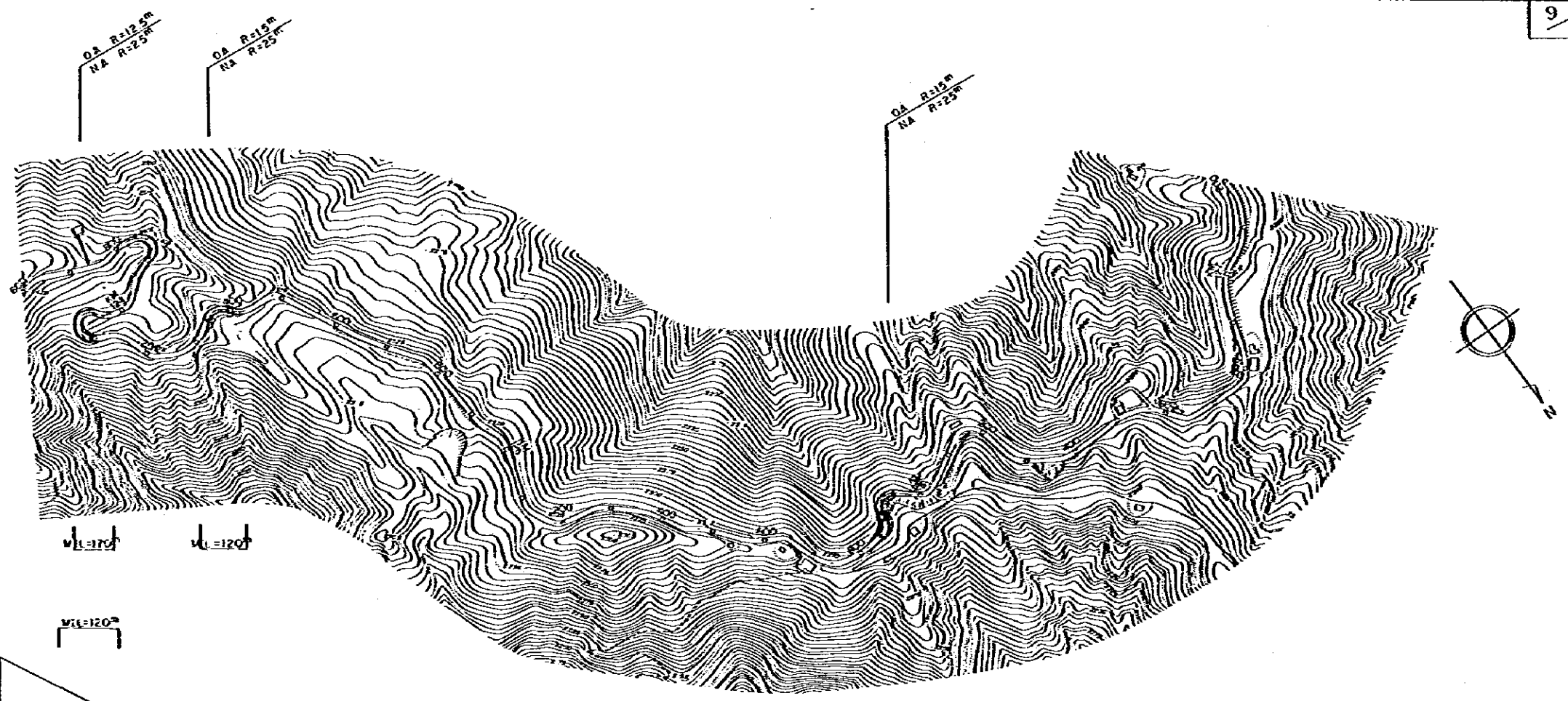


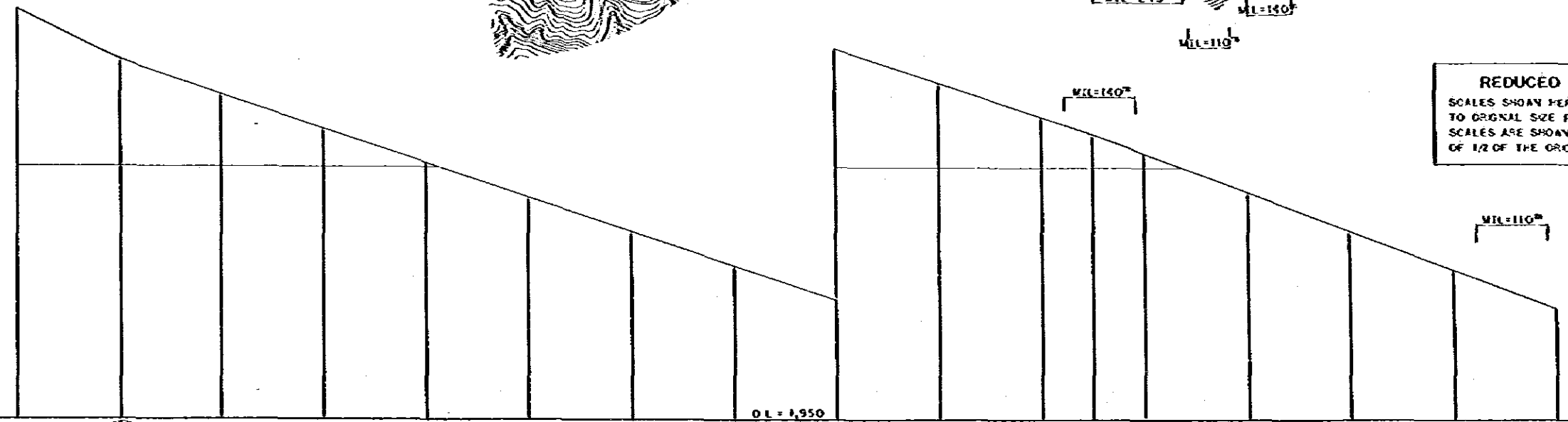
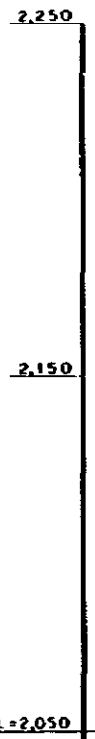
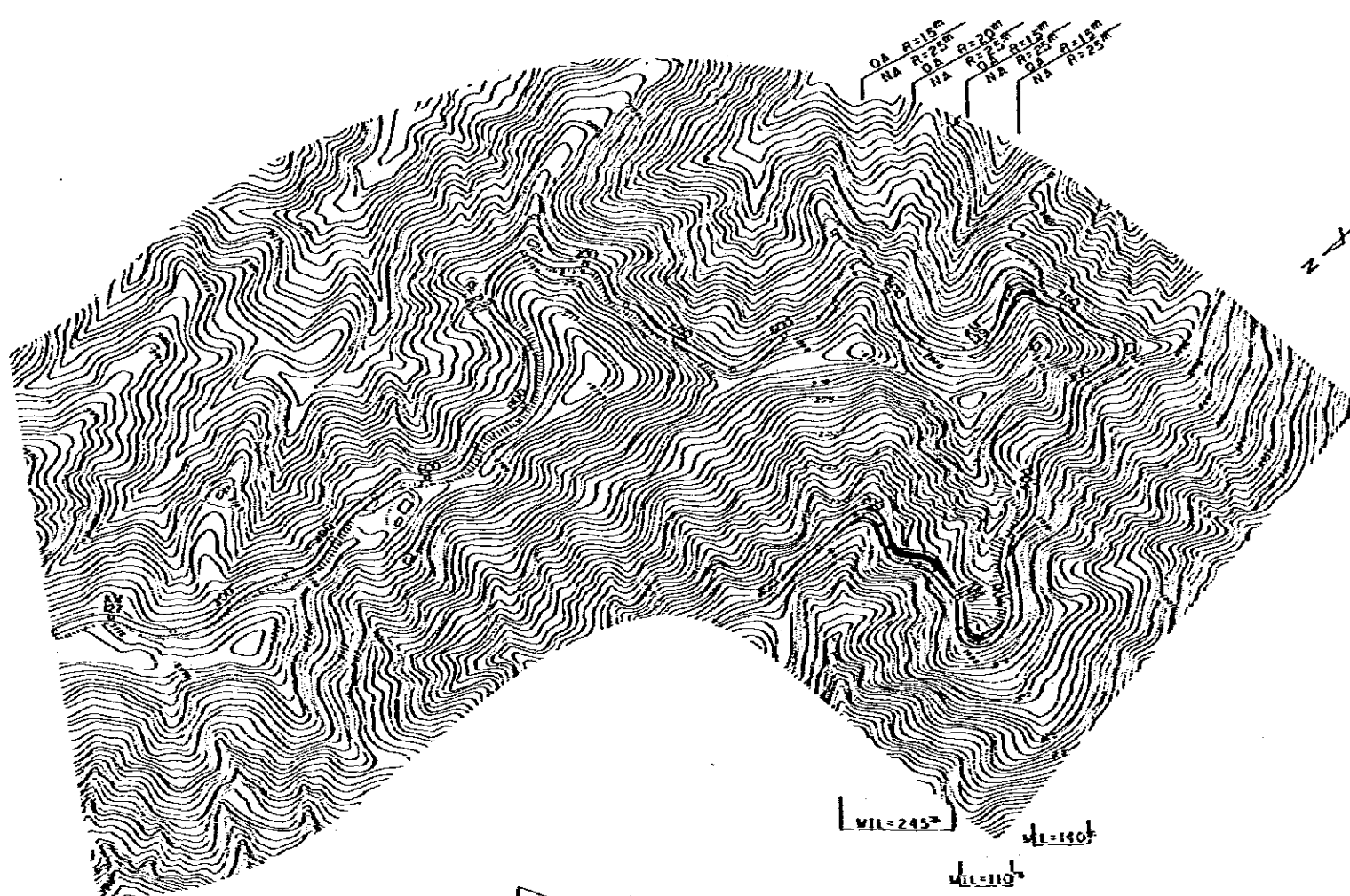
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE	DL = 2,450
VERTICAL GRADIENT	-1.85% L=500m -1.42% L=500m -1.81% L=500m -1.40% L=500m
ACCUMULATIVE DISTANCE	163.677 163.677 163.977 164.077 164.277 164.477 164.677 164.877 165.077 165.177 165.277 165.477 165.677 165.877 166.077 166.277 166.477 166.577 166.677
IN - SITU KM POST	KM 121 KM 122 KM 123 KM 124
CONSTRUCTION KM POST	KM 121+000 +200 +300 +400 +500 +600 +700 +800 +900 +1000 KM 122+000 +200 +300 +400 +500 +600 +700 +800 +900 +1000 KM 123+000 +200 +300 +400 +500 +600 +700 +800 +900 +1000 KM 124+000
HORIZONTAL CURVE	



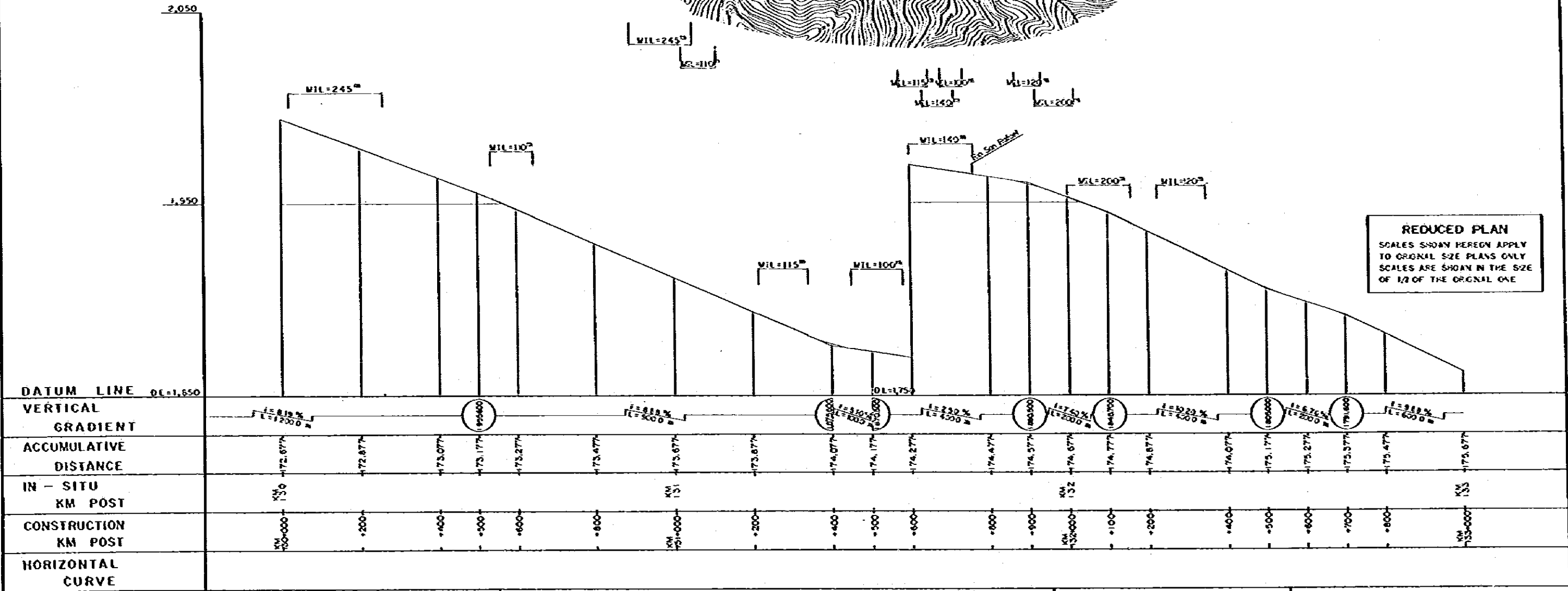
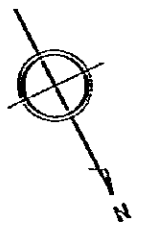
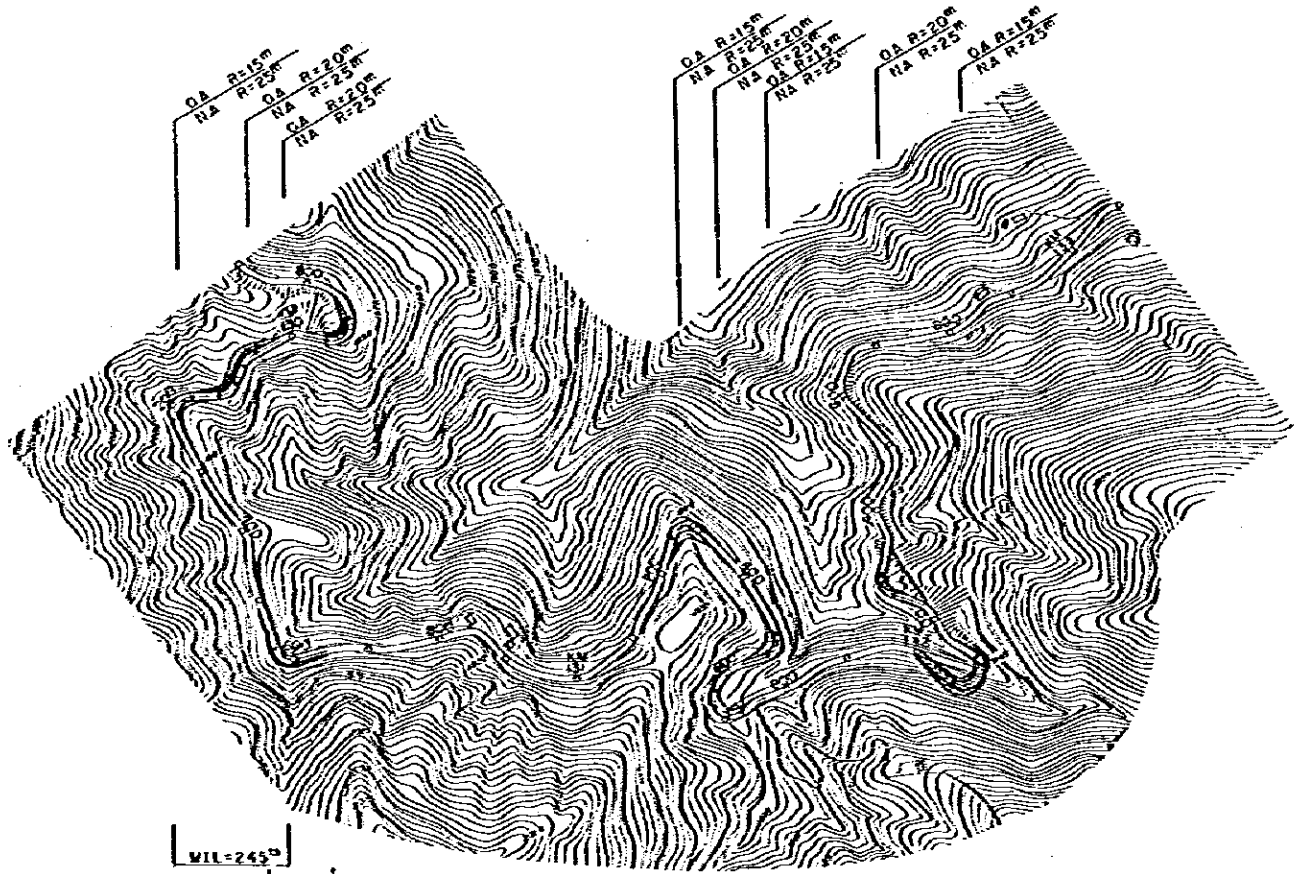
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE DL=2,200	
VERTICAL GRADIENT	$\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$ $\frac{1}{1000} \%$
ACCUMULATIVE DISTANCE	166.877 166.877 167.077 167.277 167.477 167.677 167.877 168.077 168.277 168.477 168.677 168.877 169.077 169.277 169.477 169.677 169.877 170.077 170.277 170.477
IN - SITU KM POST	KM 124 125 126 127
CONSTRUCTION KM POST	KM 124+000 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000
HORIZONTAL CURVE	



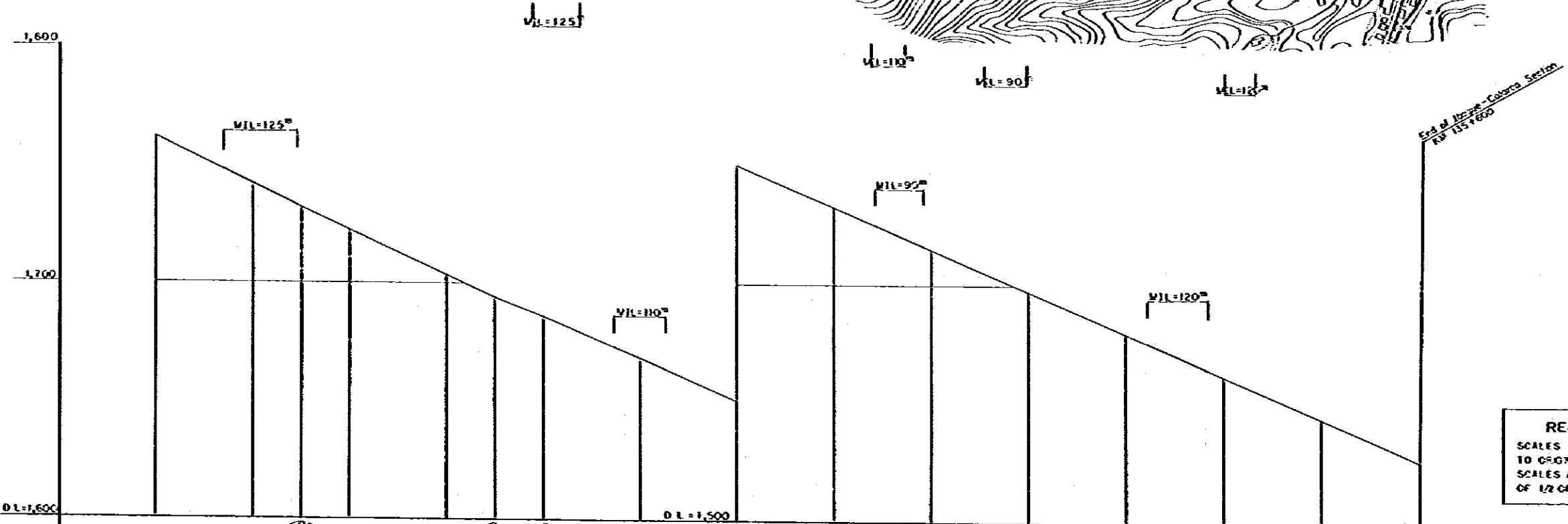
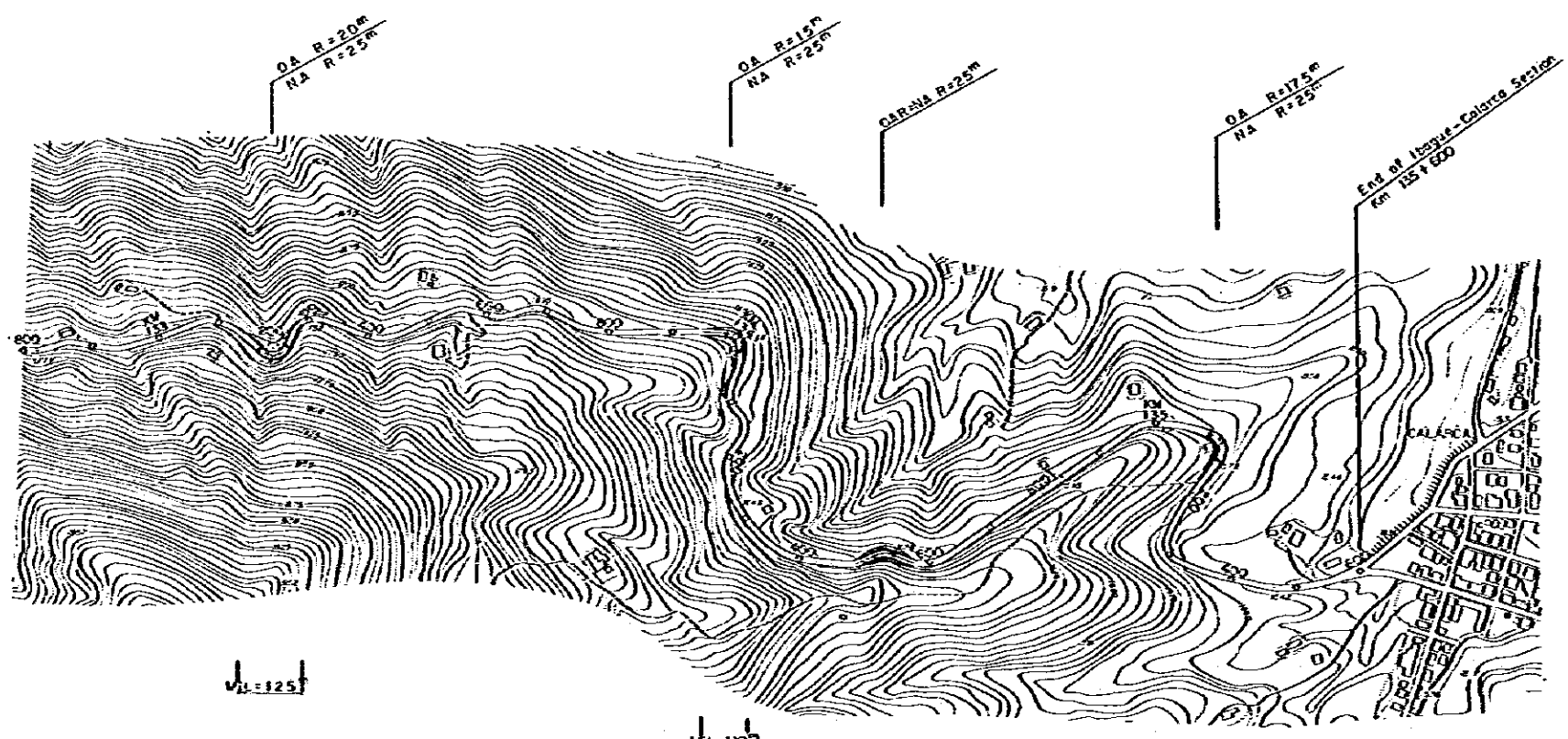
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL

DATUM LINE	DL = 2,050														
VERTICAL GRADIENT	1 = 8.88% L = 5000 m					1 = 7.03% L = 19000 m					1 = 7.72% L = 14000 m				
ACCUMULATIVE DISTANCE	109.87m	169.87m	170.07m	170.27m	170.47m	170.67m	170.87m	171.07m	171.27m	171.47m	171.67m	171.87m	172.07m	172.27m	172.47m
IN - SITU KM POST	127	128				129					130				131
CONSTRUCTION KM POST	-127+000	+200	+400	+600	+800	+1200	+1400	+1600	+1800	+2000	+2400	+2600	+2800	+3000	+3400
HORIZONTAL CURVE															

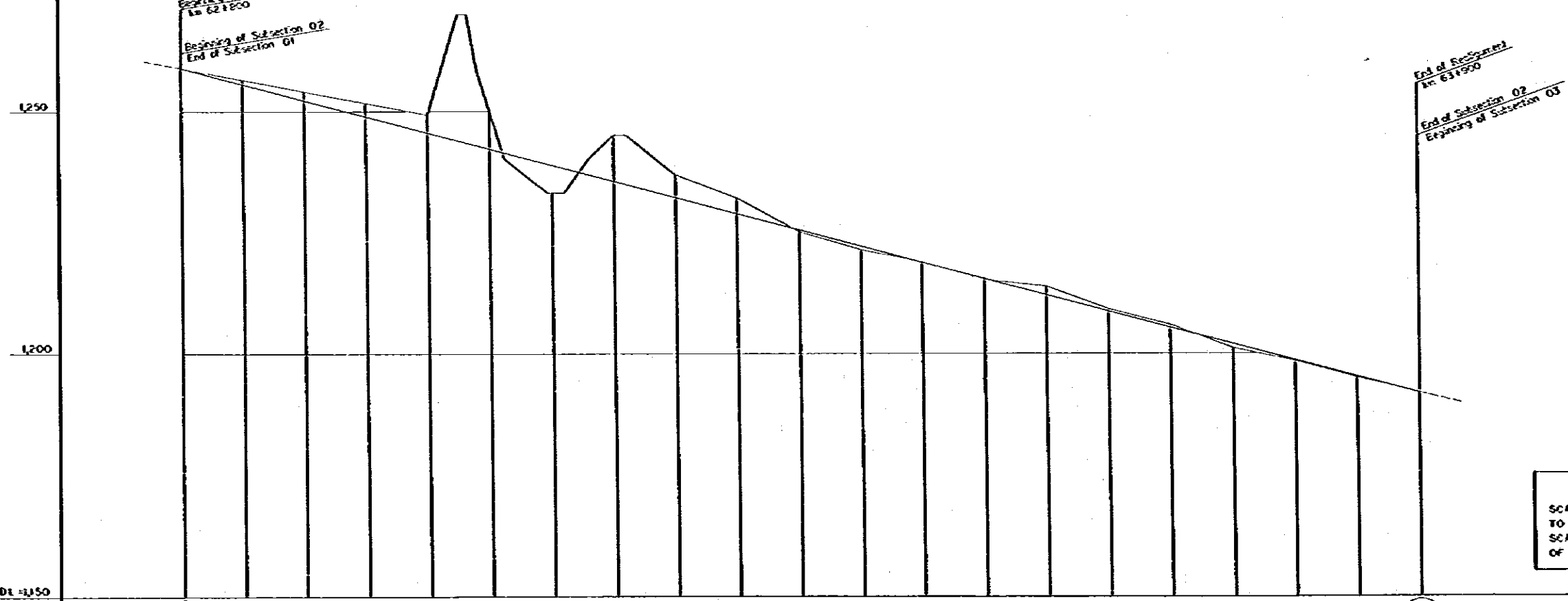
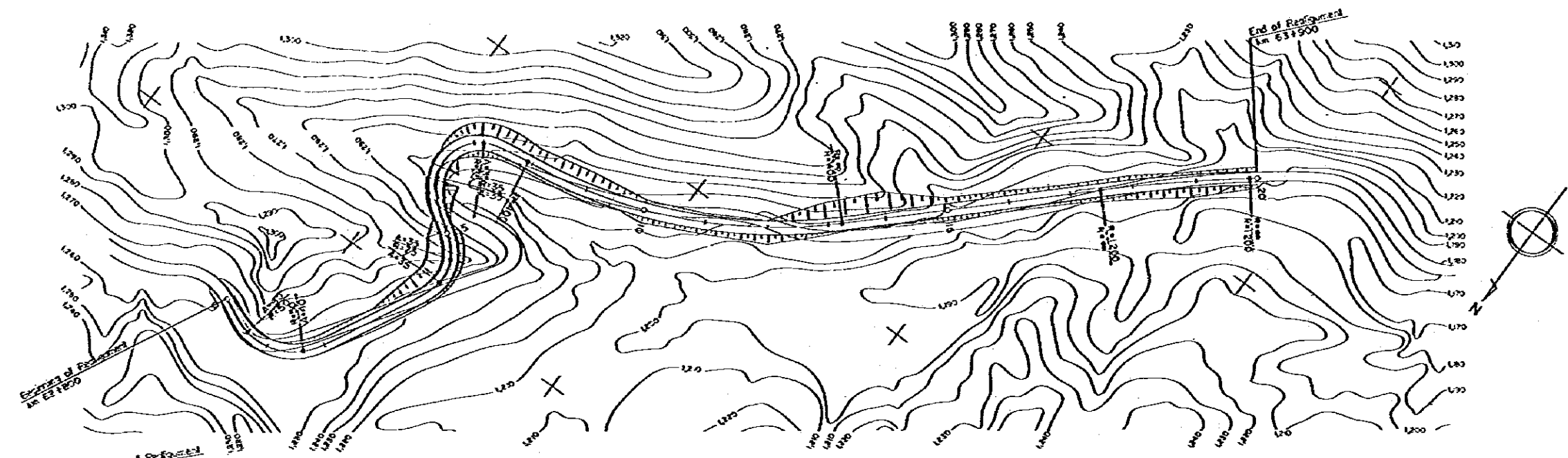


REDUCED PLAN
 SCALES SHOWN HEREIN APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE.

DATUM LINE	OL=1,650
VERTICAL GRADIENT	-1.819% L=12000 M, -1.888% L=5000 M, -1.810% L=12000 M, -1.740% L=2000 M, -1.5023% L=6000 M, -1.626% L=2000 M, -1.988% L=6000 M
ACCUMULATIVE DISTANCE	172.677, 172.877, 173.077, 173.177, 173.277, 173.477, 173.677, 173.877, 174.077, 174.177, 174.277, 174.477, 174.577, 174.677, 174.777, 174.877, 174.977, 175.177, 175.277, 175.377, 175.477, 175.677
IN - SITU KM POST	130+000, 130+200, 130+400, 130+600, 130+800, 131+000, 131+200, 131+400, 131+600, 131+800, 132+000, 132+200, 132+400, 132+600, 132+800, 133+000
CONSTRUCTION KM POST	130+000, 130+200, 130+400, 130+600, 130+800, 131+000, 131+200, 131+400, 131+600, 131+800, 132+000, 132+200, 132+400, 132+600, 132+800, 133+000
HORIZONTAL CURVE	



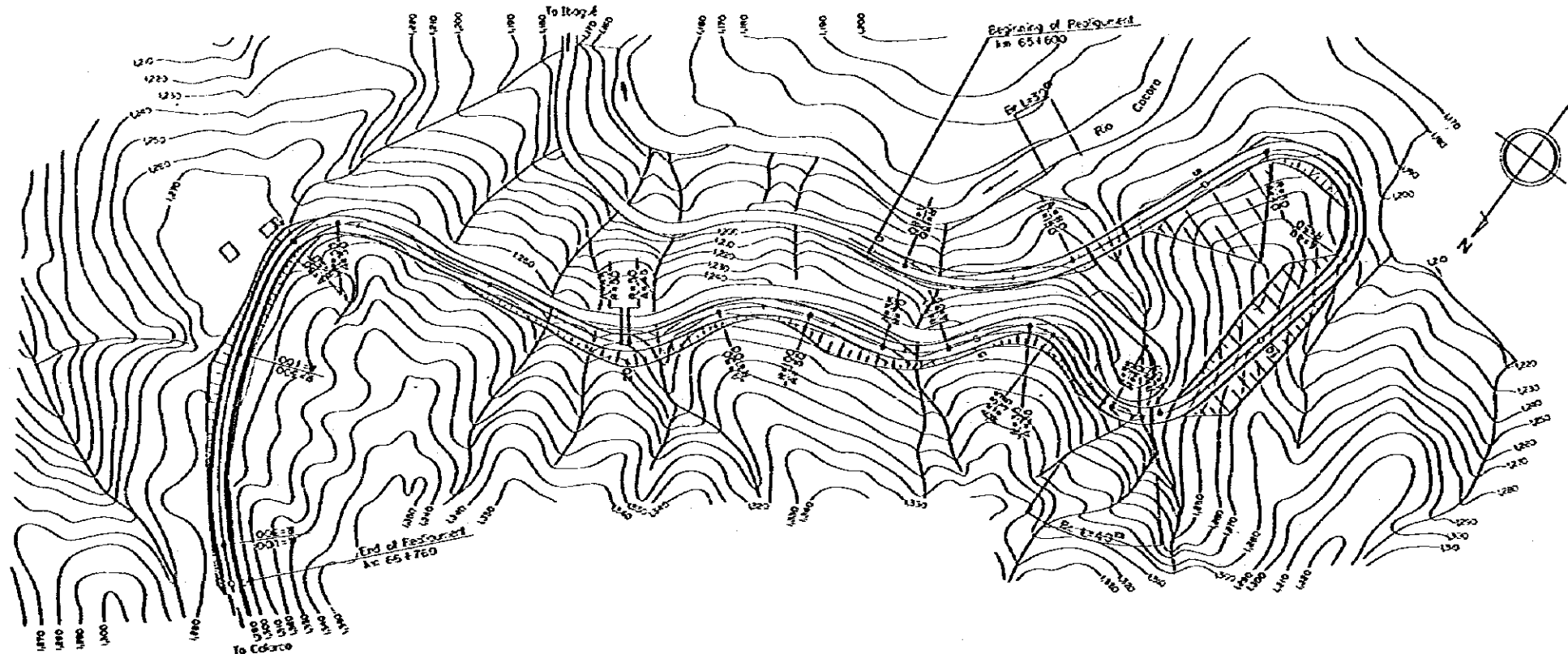
DATUM LINE	D.L.=1,600		D.L.=1,500	
VERTICAL GRADIENT	-1.88% L=600m		-1.85% L=1600m	
ACCUMULATIVE DISTANCE	175.877	175.977	176.277	177.277
IN - SITU KM POST	133	134	135	136
CONSTRUCTION KM POST	000	200	400	600
HORIZONTAL CURVE				
M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT		MINIMUM SCALE IMPROVEMENT PLAN (50)	
			KM 133+000 — KM 135+600	
			SCALE H=1:5000 V=1:1000	
			DATE MARCH 1982	
			SHEET No. 53 OF 135	



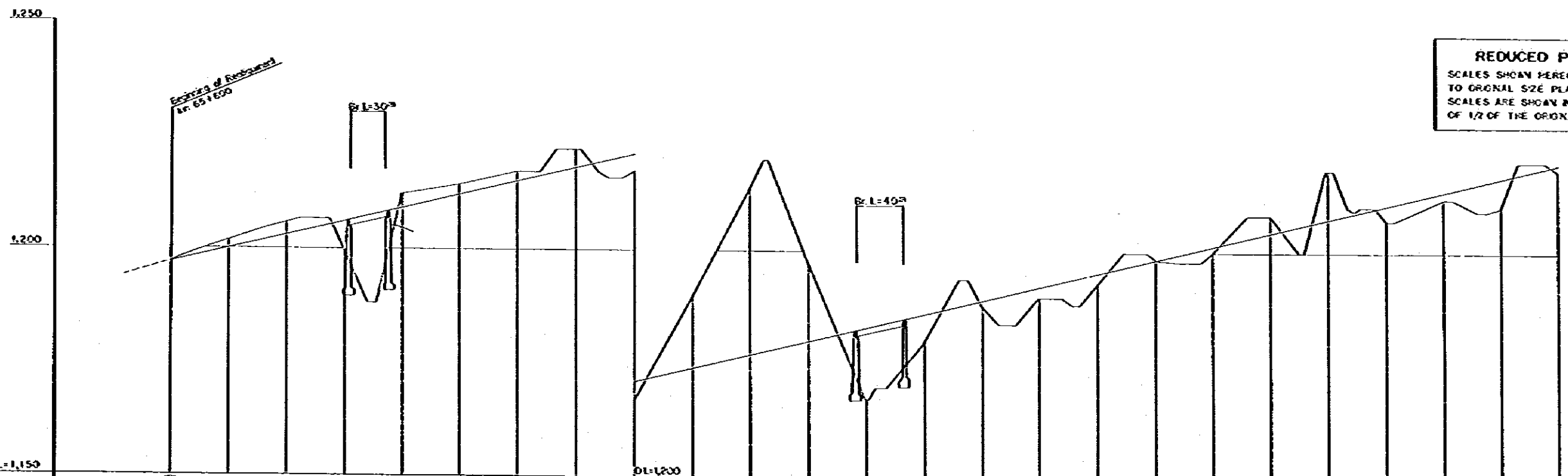
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE	DL = 1250
VERTICAL GRADIENT	0+000 to 1+000
ACCUMULATIVE DISTANCE	0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000
STATION	0+000 1+000 2+000 3+000 4+000 5+000 6+000 7+000 8+000 9+000 10+000
HORIZONTAL CURVE	A=43 R=50 A=60 R=∞ A=35 R=35 A=35 R=∞ A=35 R=400 R=∞ R=1200 R=∞

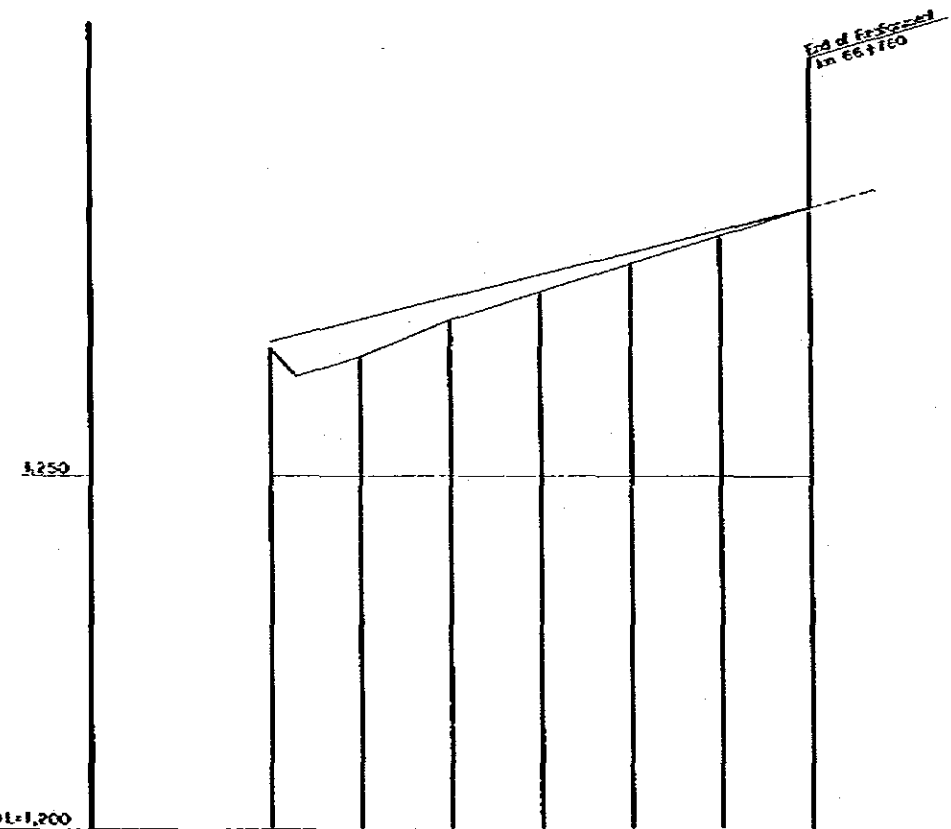
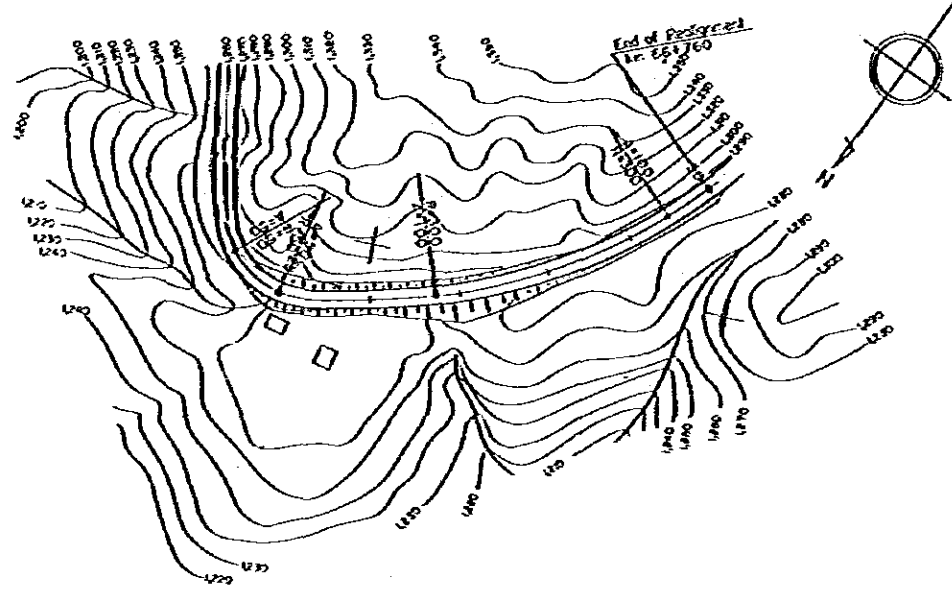
M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT	MEDIUM SCALE IMPROVEMENT PLAN SUBSECTION 02 KM 62+800 — KM 63+900	SCALE H = 1 : 2000 V = 1 : 500	DATE	MARCH 1982
				SHEET No.	54 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE.



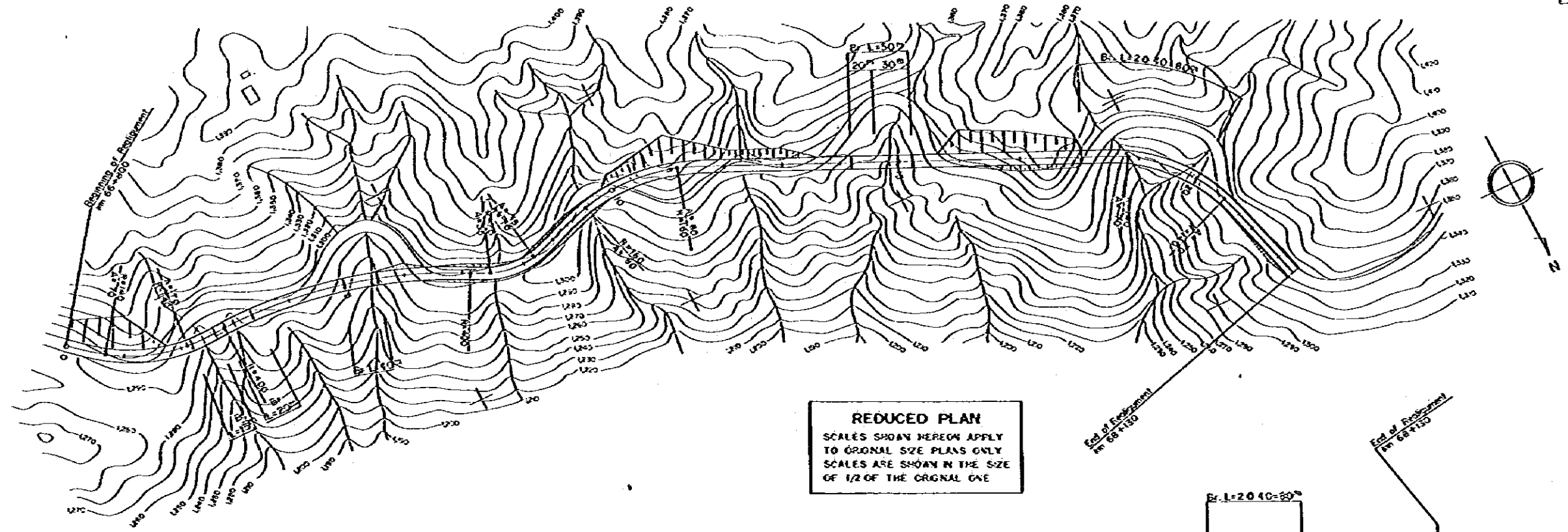
DATUM LINE	OL-1,150
VERTICAL GRADIENT	0 - 1970
ACCUMULATIVE DISTANCE	0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200
STATION	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
HORIZONTAL CURVE	A=80 R=150 A=60 R=∞ A=70 R=50 A=40 R=∞ A=55 R=40 A=35 R=35 A=35 R=∞ A=35 R=70 A=35 A=30 R=∞ A=50 R=100 A=50 A=45 R=50 A=45 R=∞ A=50



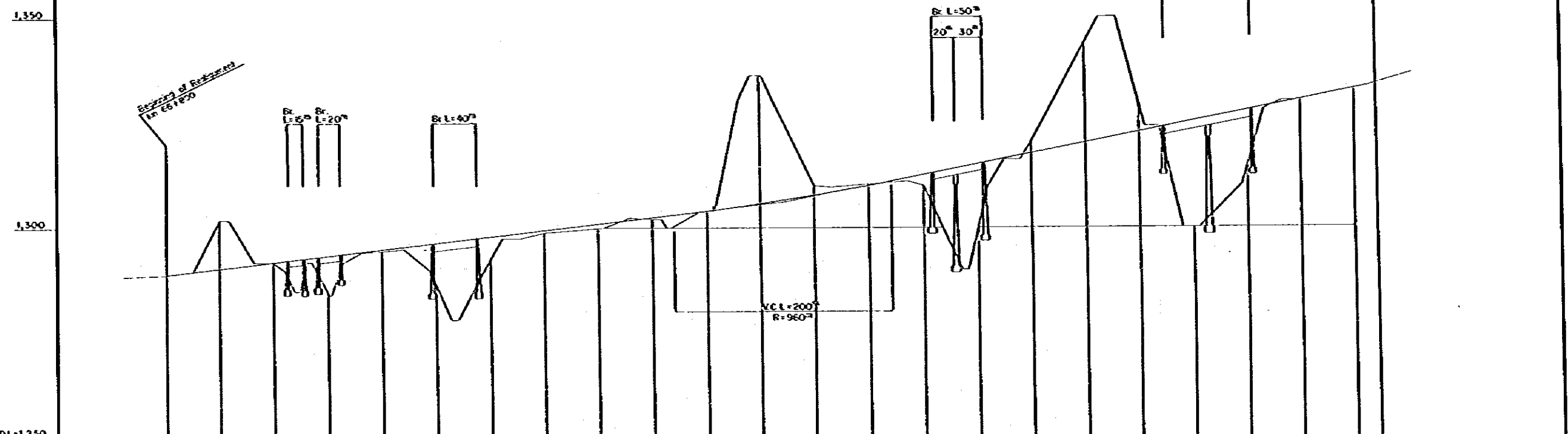
REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL ONE

DATUM LINE DL=1,200						
VERTICAL GRADIENT	1:6.061% L=1500m					
ACCUMULATIVE DISTANCE	1200	1250	1300	1350	1400	1450
STATION	24	25	26	27	28	29
HORIZONTAL CURVE	A=50 R=50 A=50 R=100 A=100 R=300 A=100					

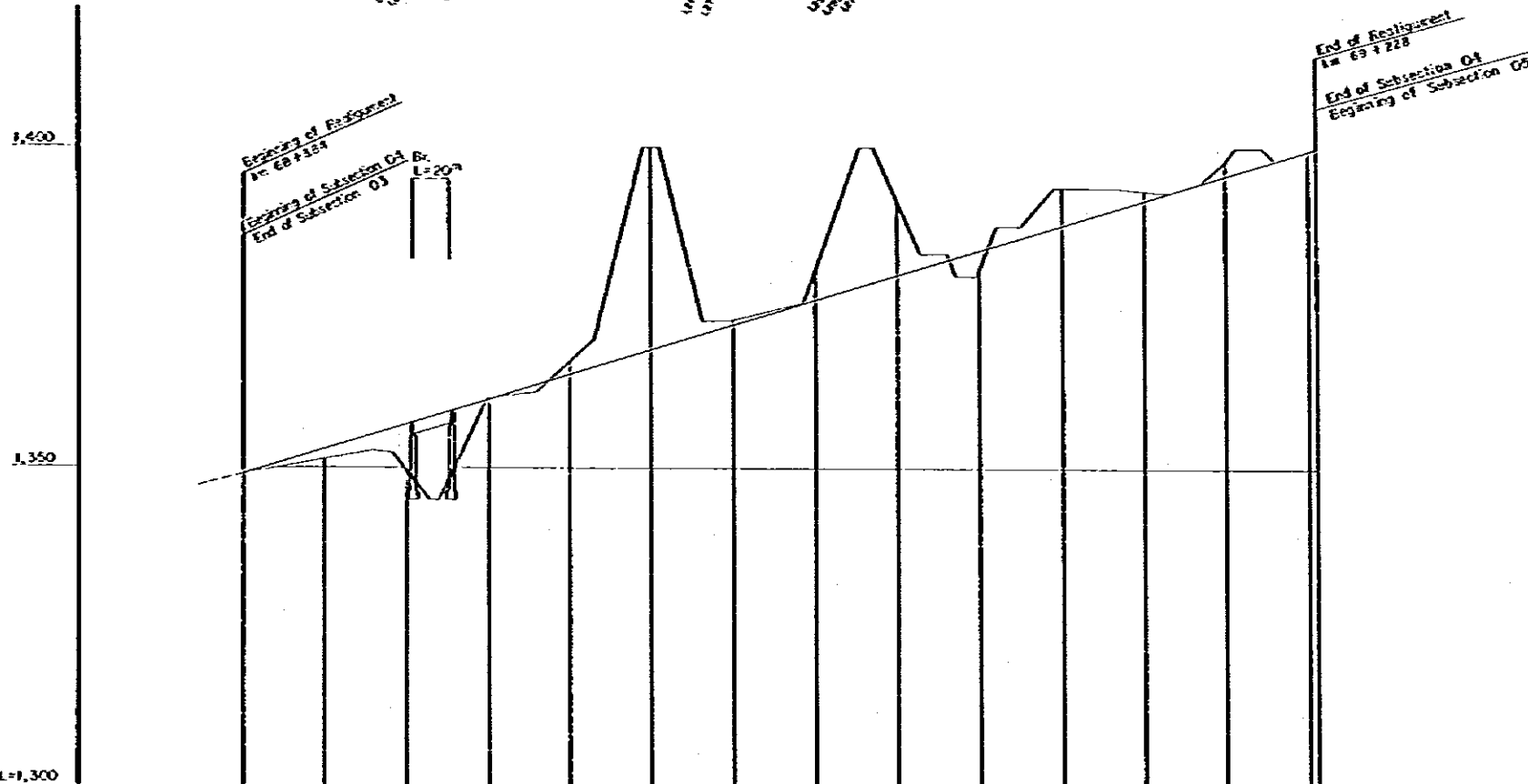
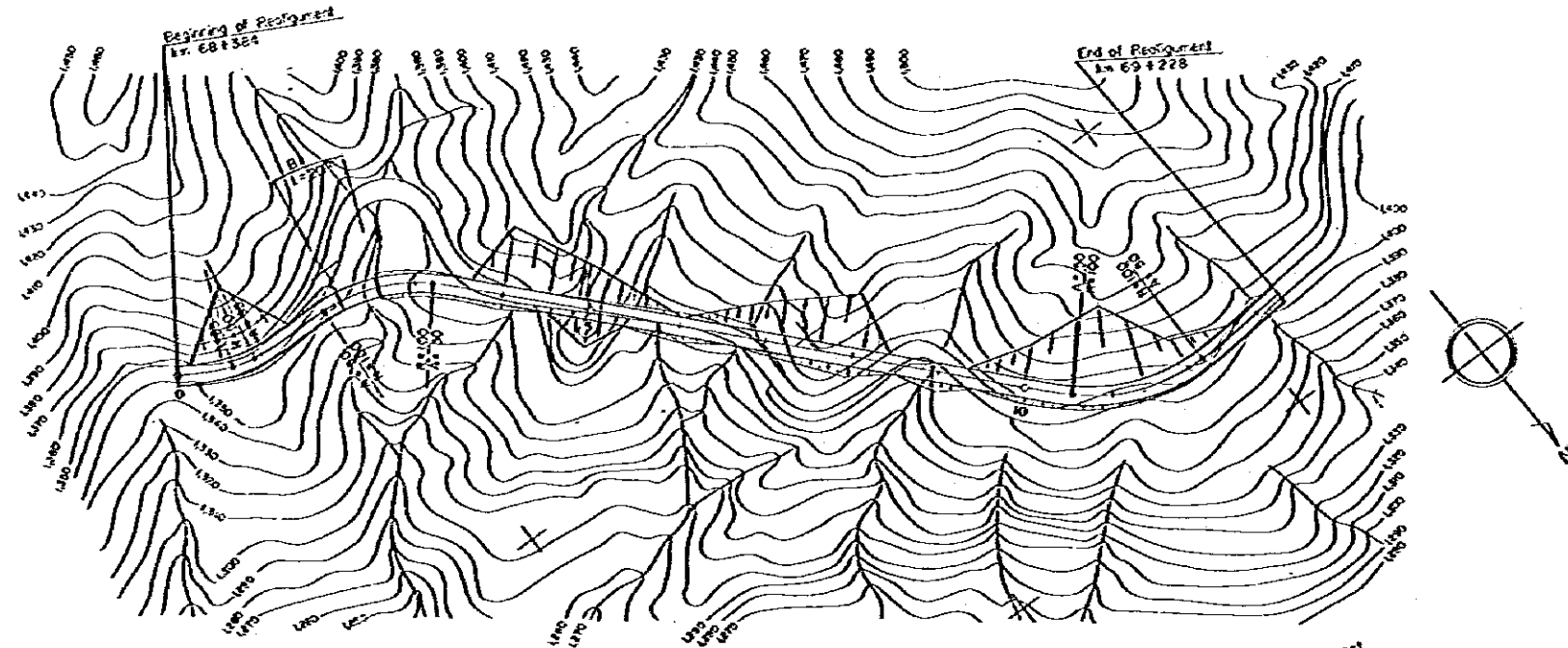
M O P T	BOGOTA -- BUENAVENTURA ROAD PROJECT	MEDIUM SCALE IMPROVEMENT PLAN SUBSECTION 03 KM 65+600 - KM 66+760 (2)	SCALE H = 1 : 2000	DATE MARCH 1982
			V = 1 : 500	SHEET No. 56 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

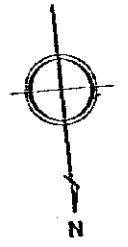


DATUM LINE	DL-1,250
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0, 50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1050, 1100, 1120
STATION	66+000, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 68+100 (68+130)
HORIZONTAL CURVE	

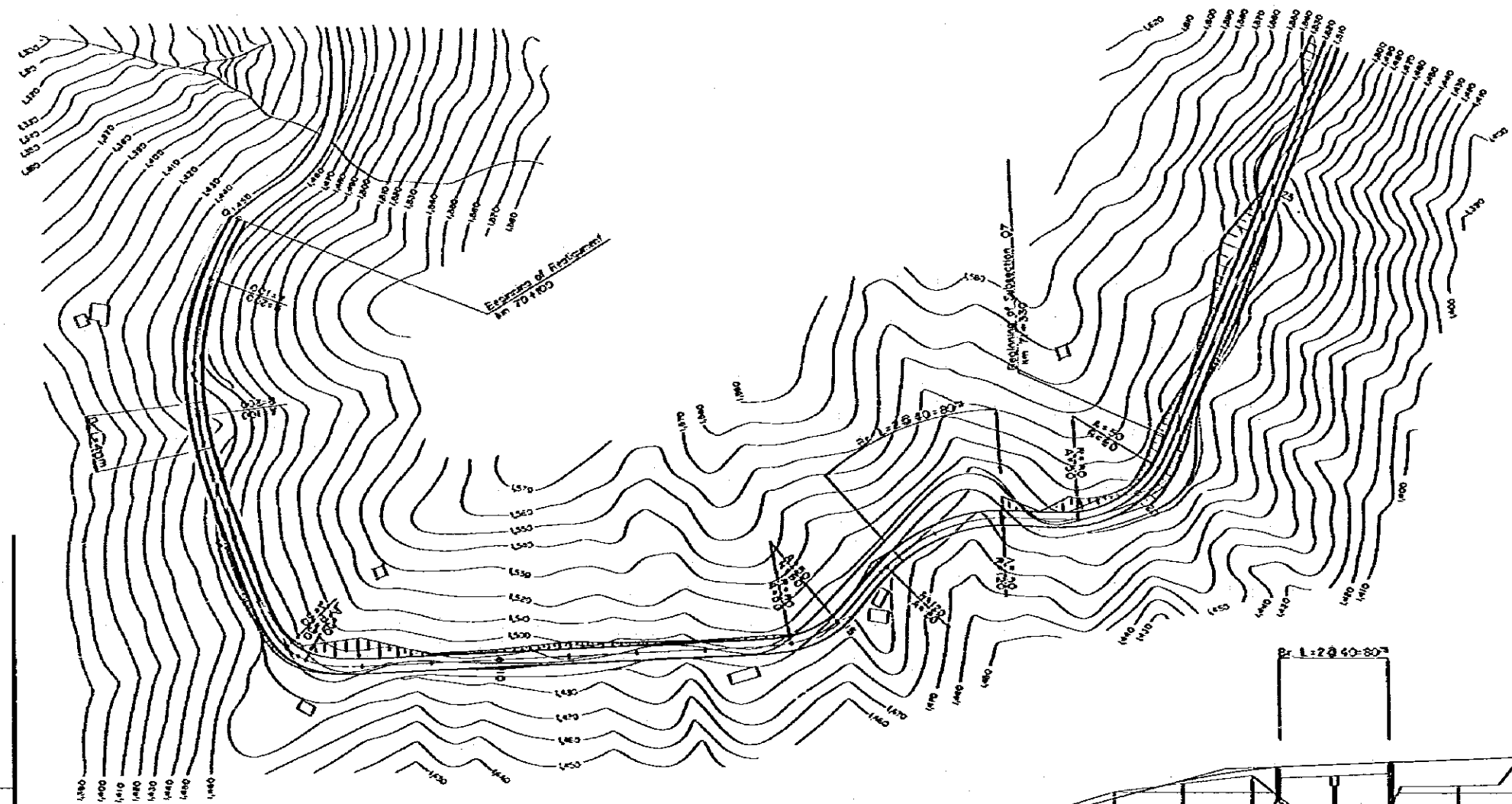


REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL CASE

DATUM LINE	DL=1,300
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0 50 100 150 200 250 300 350 400 450 500 550 600 650
STATION	0 1 2 3 4 5 6 7 8 9 10 11 12 13
HORIZONTAL CURVE	



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE



1,500

1,450

DATUM LINE DL=1,425

VERTICAL GRADIENT

ACCUMULATIVE DISTANCE

STATION

HORIZONTAL CURVE

Beginning of Subsection 05
 Km 7+100
 End of Subsection 05

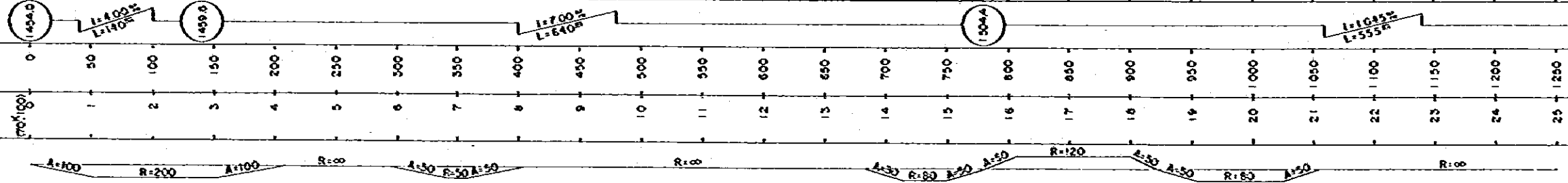
B L=407

VCL=150
 R=5000

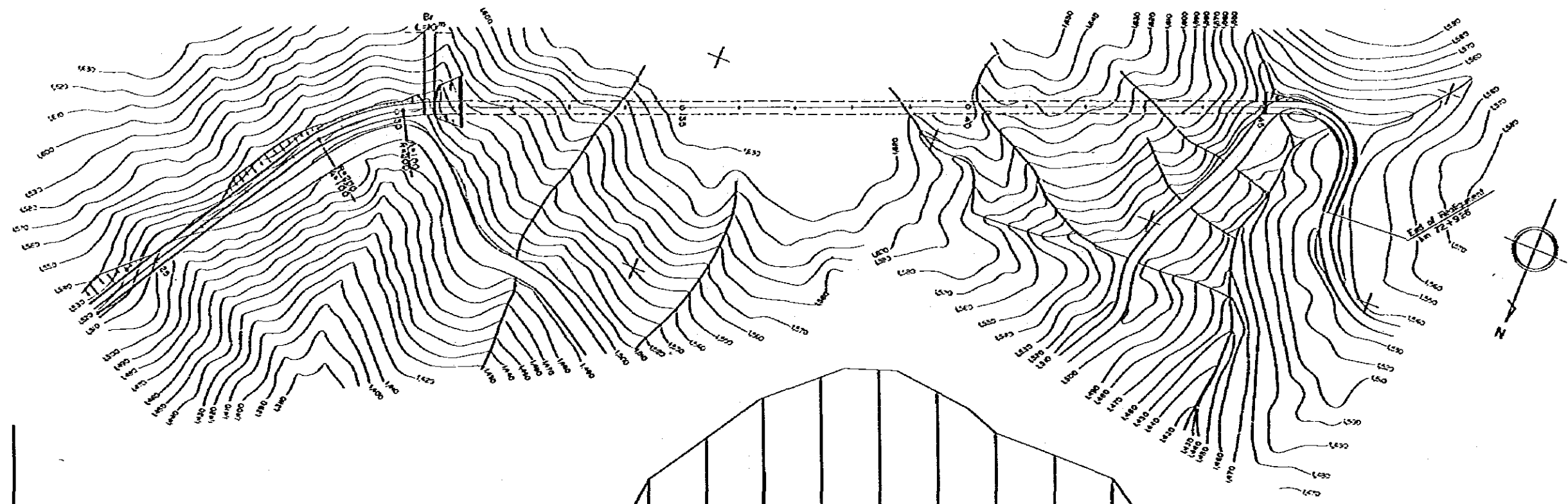
VCL=120
 R=2600

R=2040-807

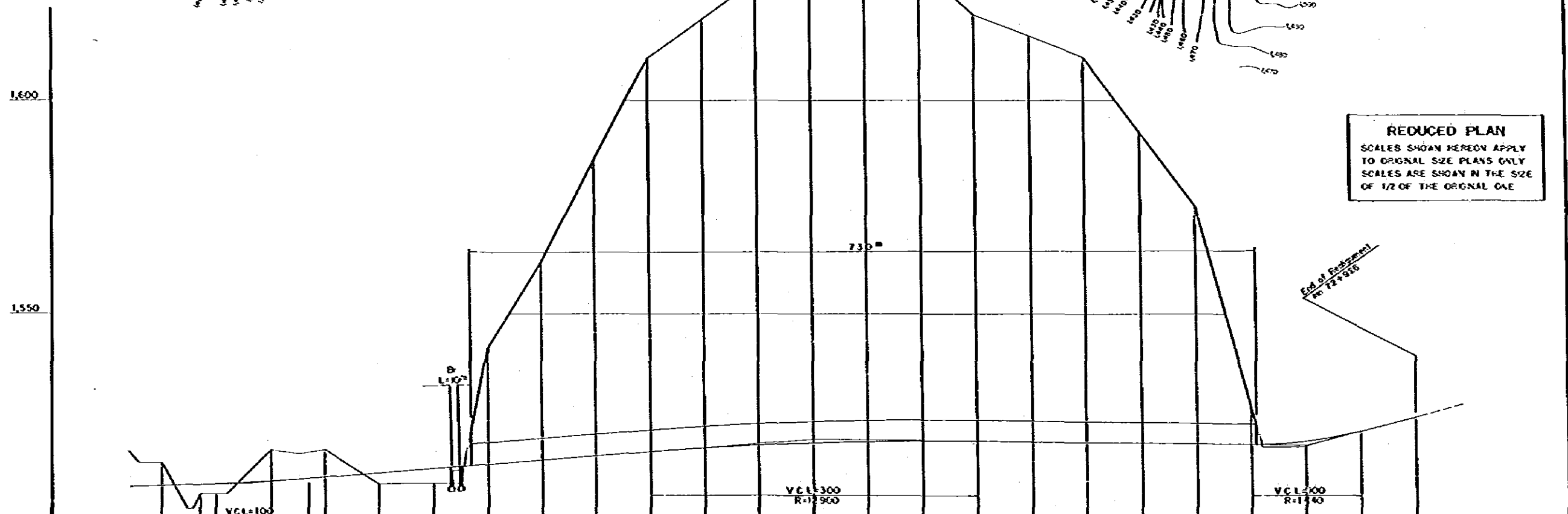
Beginning of Subsection 07
 End of Subsection 06
 Km 7+330



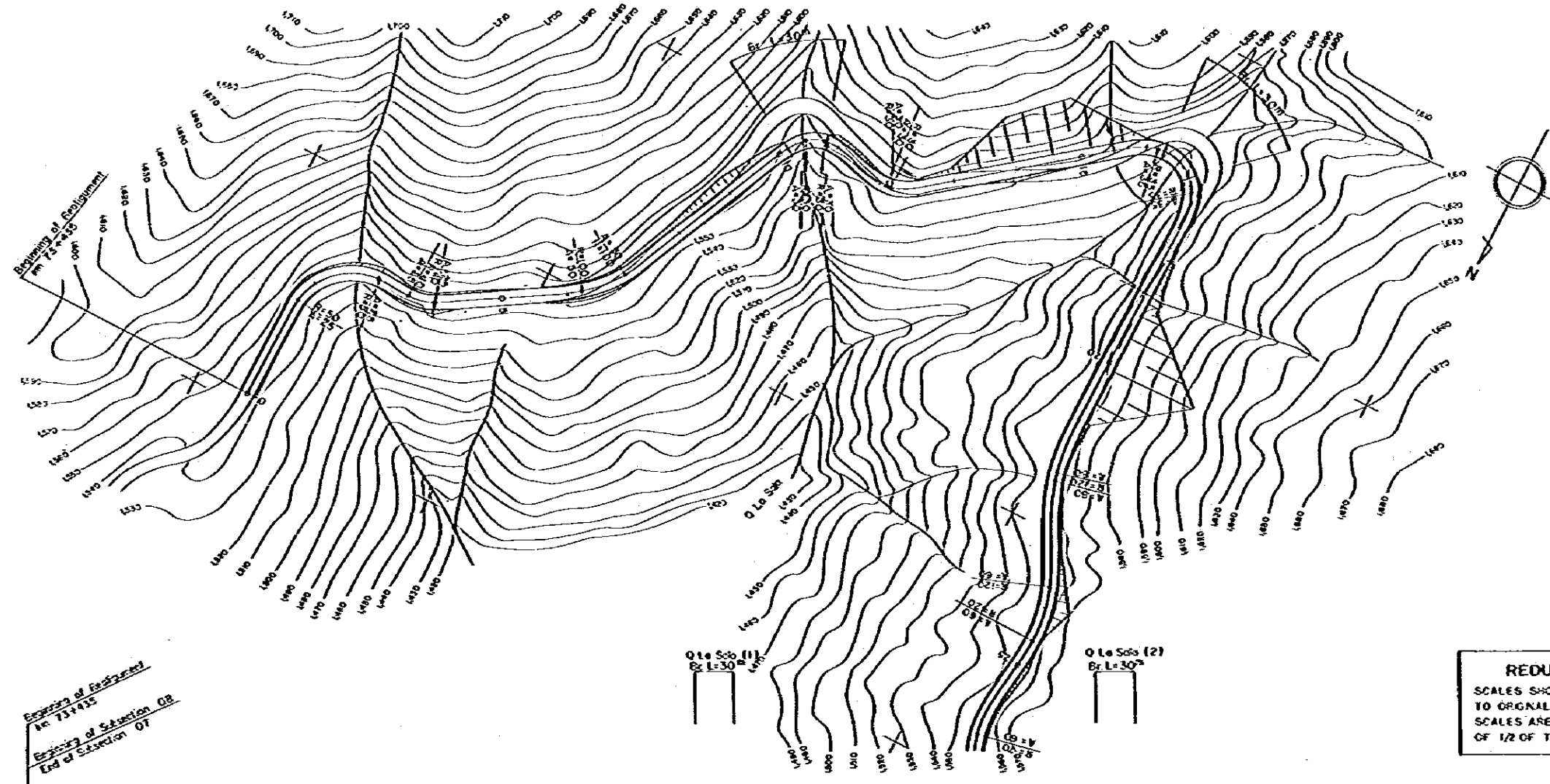
M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT	MEDIUM SCALE IMPROVEMENT PLAN SUBSECTION 06-07 KM 70+100—KM 72+926 (I)	SCALE H=1:2000 V=1:500	DATE	MARCH 1982
				SHEET No.	59 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

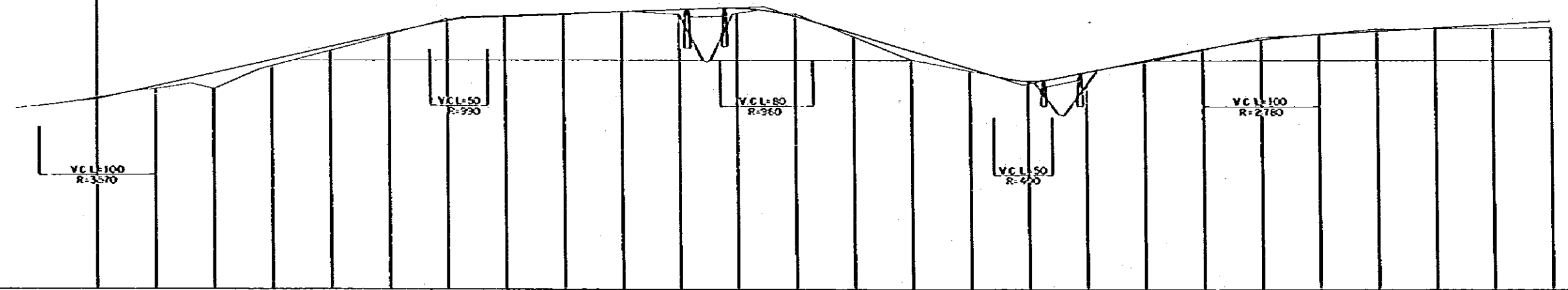


DATUM LINE	DL=1,500
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	1250 1300 1350 1400 1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950 2000 2050 2100 2150 2200 2250 2300 2350 2400
STATION	25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
HORIZONTAL CURVE	



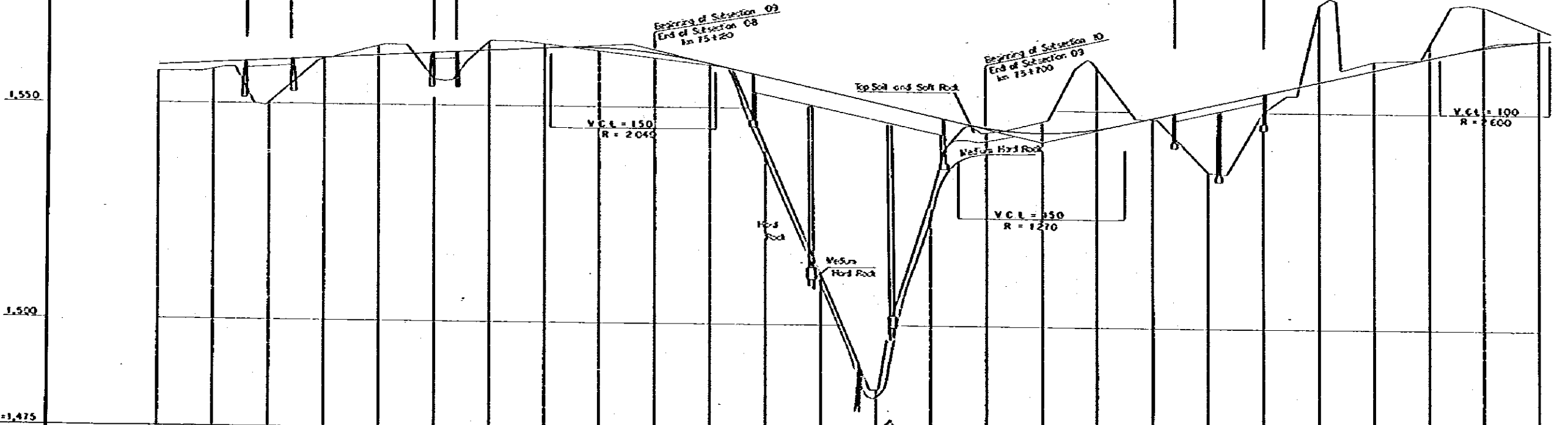
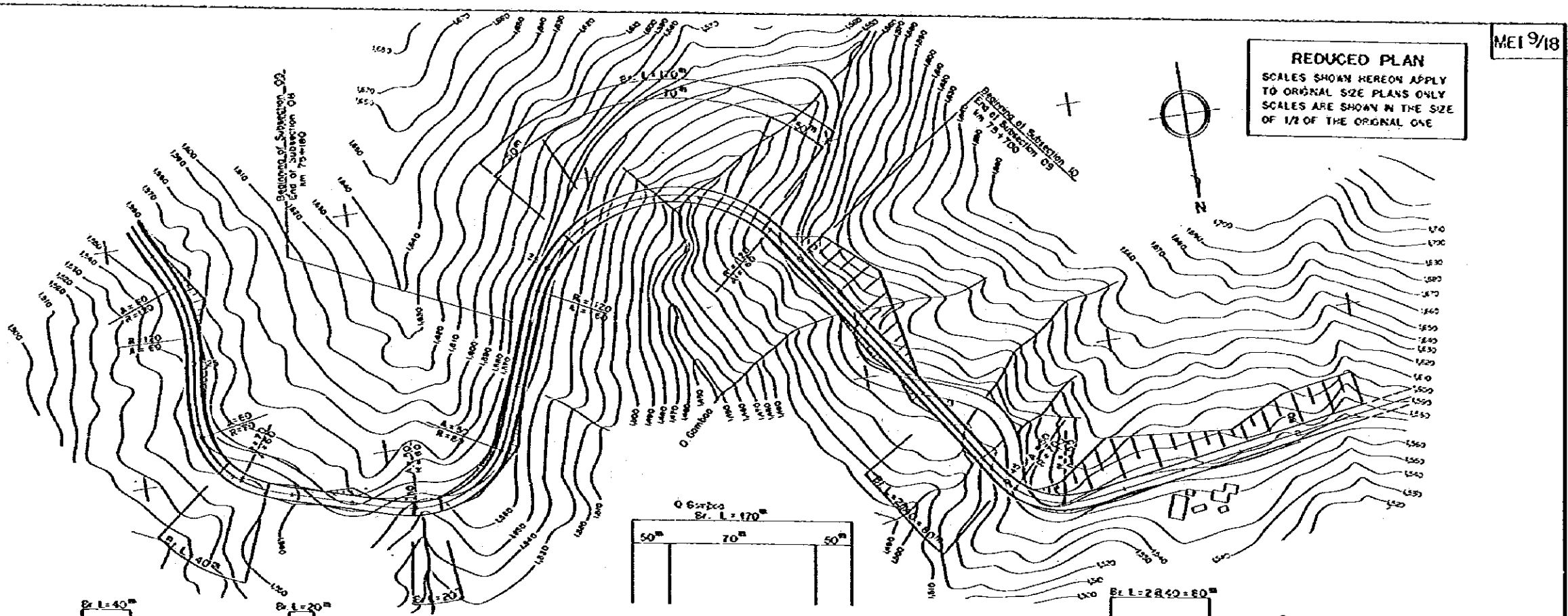
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL CASE

1,500
 1,550

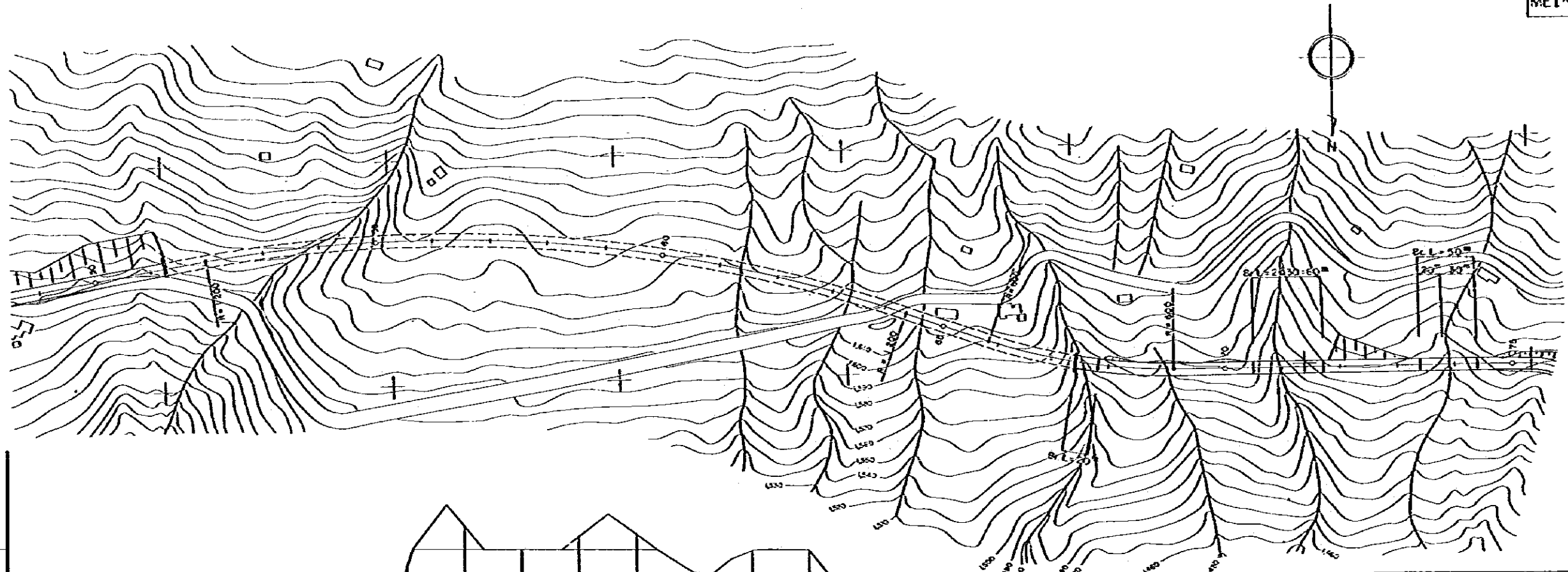


DATUM LINE	DL=1,500
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200 1250
STATION	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
HORIZONTAL CURVE	

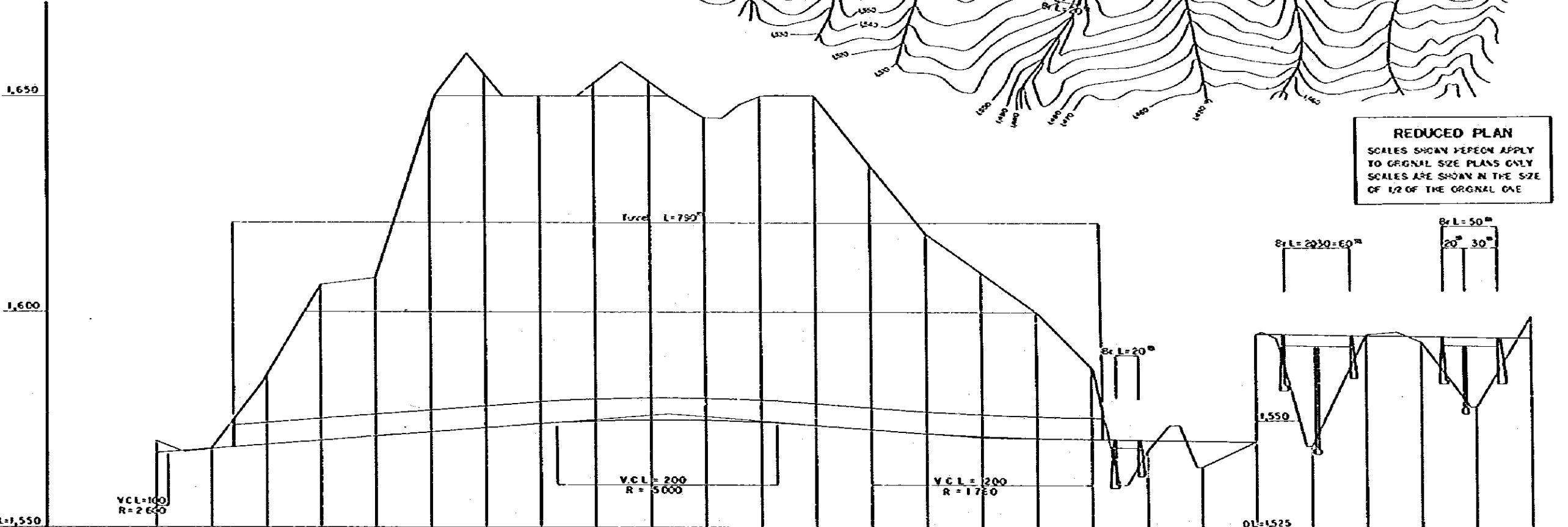
REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL ONE



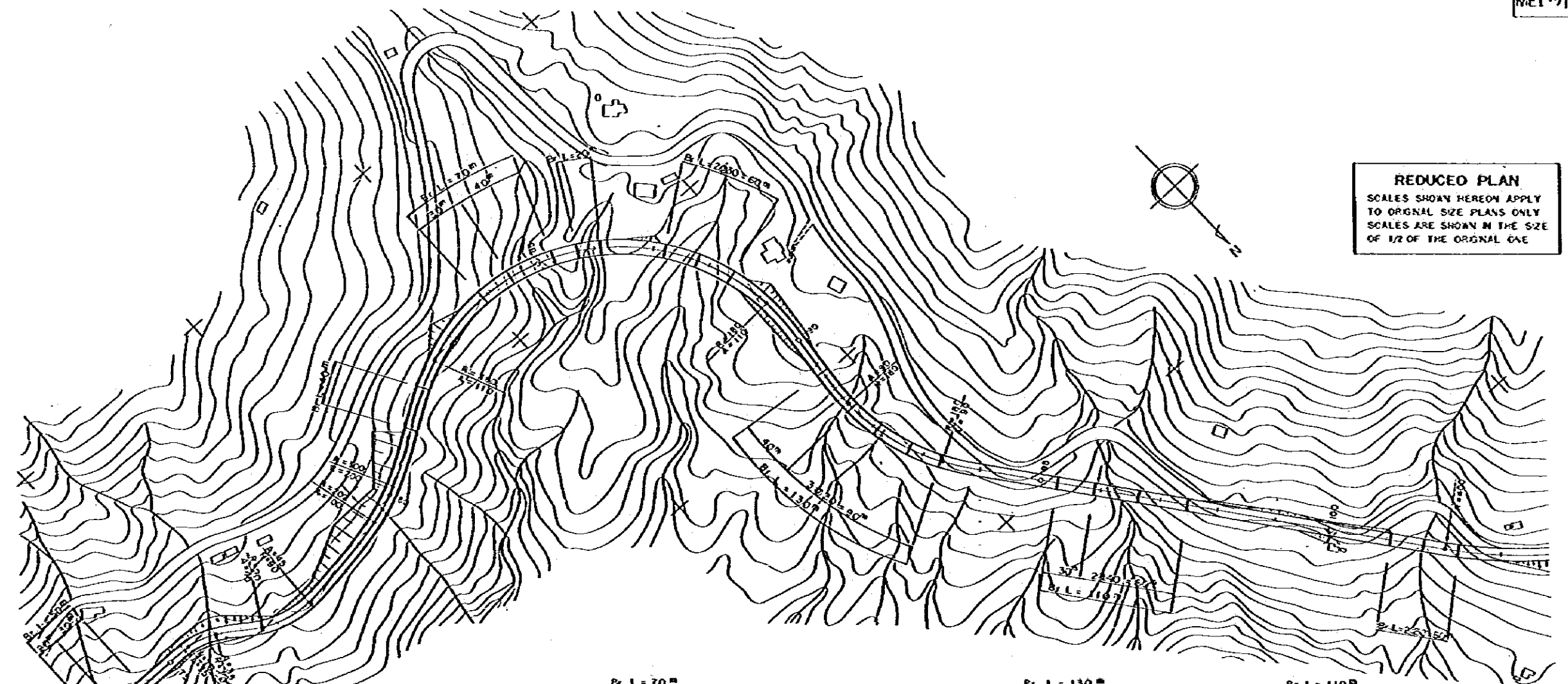
VERTICAL GRADIENT	$i = 1.4\%$ $L = 680m$																									
ACCUMULATIVE DISTANCE	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
STATION	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
HORIZONTAL CURVE	$A=60$ $A=50$ $R=70$ $A=60$ $R=\infty$ $A=50$ $R=80$ $A=50$ $R=\infty$ $A=60$ $R=120$ $A=60$ $R=\infty$ $A=55$ $R=70$ $A=55$ $R=\infty$																									



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE.

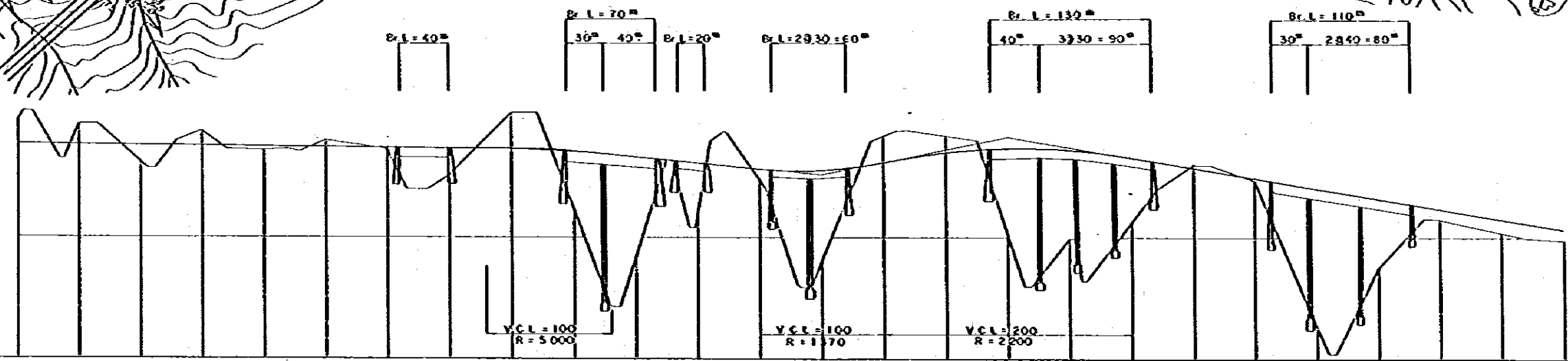


DATUM LINE	DL = 1,550
VERTICAL GRADIENT	$i = 20\%$ $L = 505m$
ACCUMULATIVE DISTANCE	2300, 2350, 2600, 2650, 2700, 2750, 2800, 2850, 2900, 2950, 3000, 3050, 3100, 3150, 3200, 3250, 3300, 3350, 3400, 3450, 3500, 3550, 3600, 3650, 3700, 3750
STATION	50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75
HORIZONTAL CURVE	$R = \infty$ $R = 1200$ $R = \infty$ $R = 600$ $R = \infty$



REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL ONE

1,600
 1,550



DATUM LINE DL=1,525

VERTICAL GRADIENT
 ACCUMULATIVE DISTANCE
 STATION
 HORIZONTAL CURVE

	i = 0.3% L = 930		i = 2.3% L = 220		i = 5.0% L = 150		i = 4.1% L = 520																			
ACCUMULATIVE DISTANCE	3750	3800	3850	3900	3950	4000	4050	4100	4150	4200	4250	4300	4350	4400	4450	4500	4550	4600	4650	4700	4750	4800	4850	4900	4950	5000
STATION	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
HORIZONTAL CURVE	A=65 R=70		A=55 R=90		A=45 R=100		A=110 R=200		A=110 R=180		A=110 R=180		A=90 R=180		A=90 R=180		A=90 R=180		A=90 R=180		A=90 R=180		A=90 R=180		A=90 R=180	

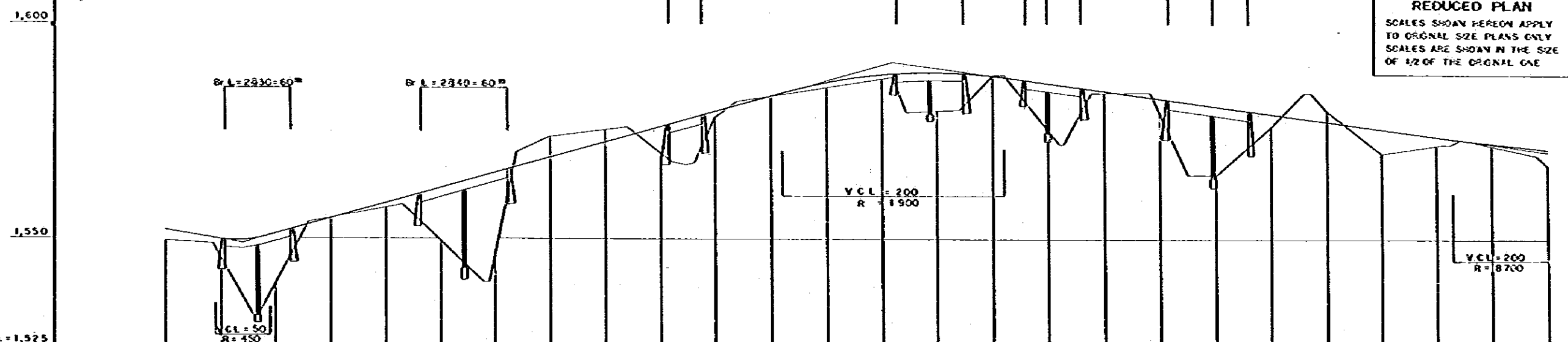
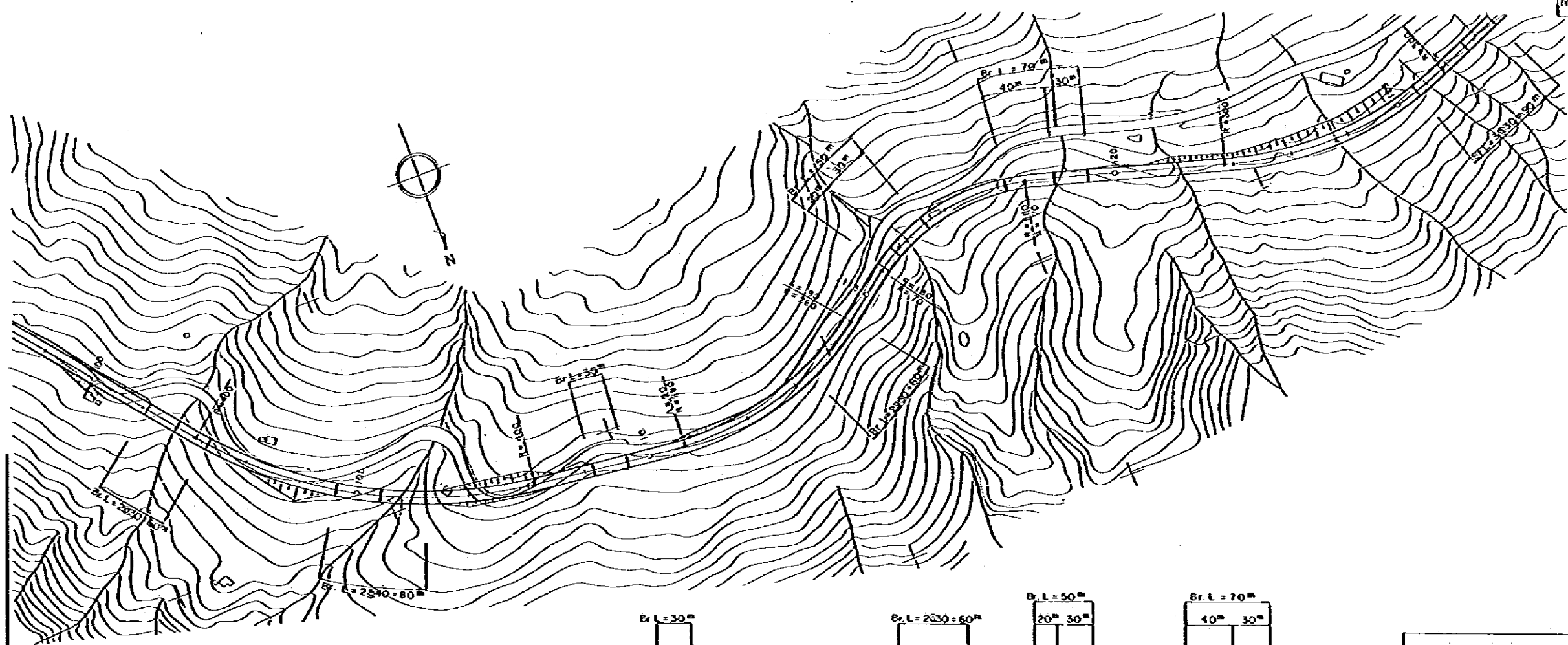
M O P T

BOGÓTA — BUENAVENTURA
 ROAD PROJECT

MEDIUM SCALE IMPROVEMENT PLAN
 SUBSECTION 08,09,10,11
 KM 73+435 — KM 81+624 (4)

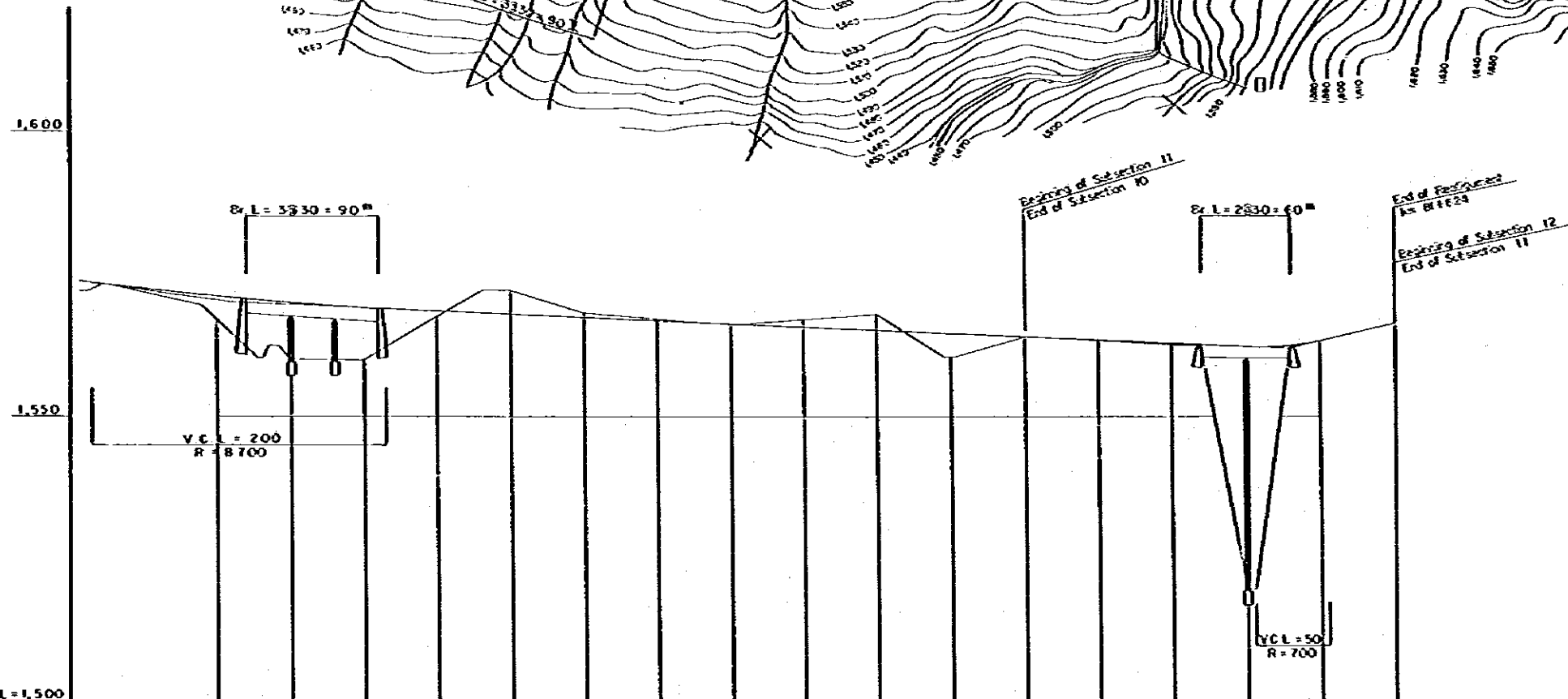
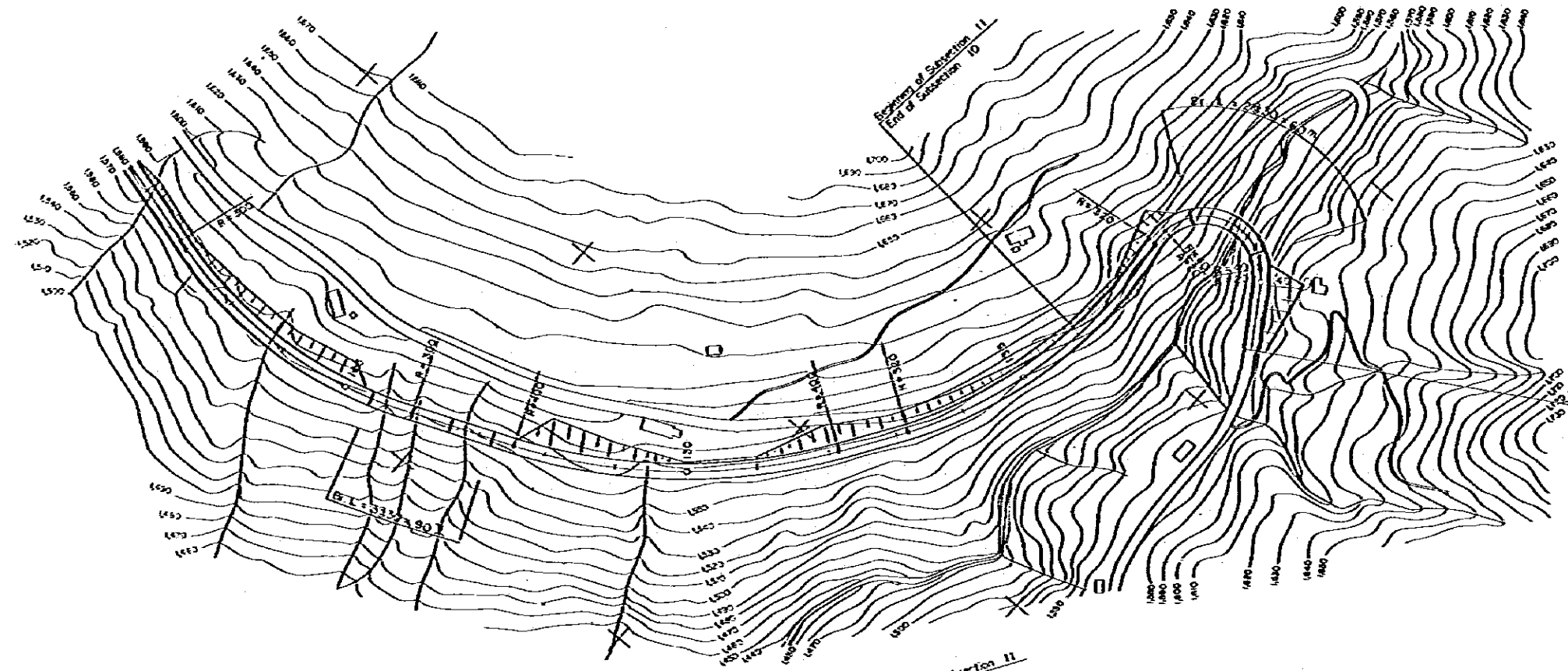
SCALE H=1:2000
 V=1:500

DATE MARCH 1982
 SHEET No. 64 OF 135



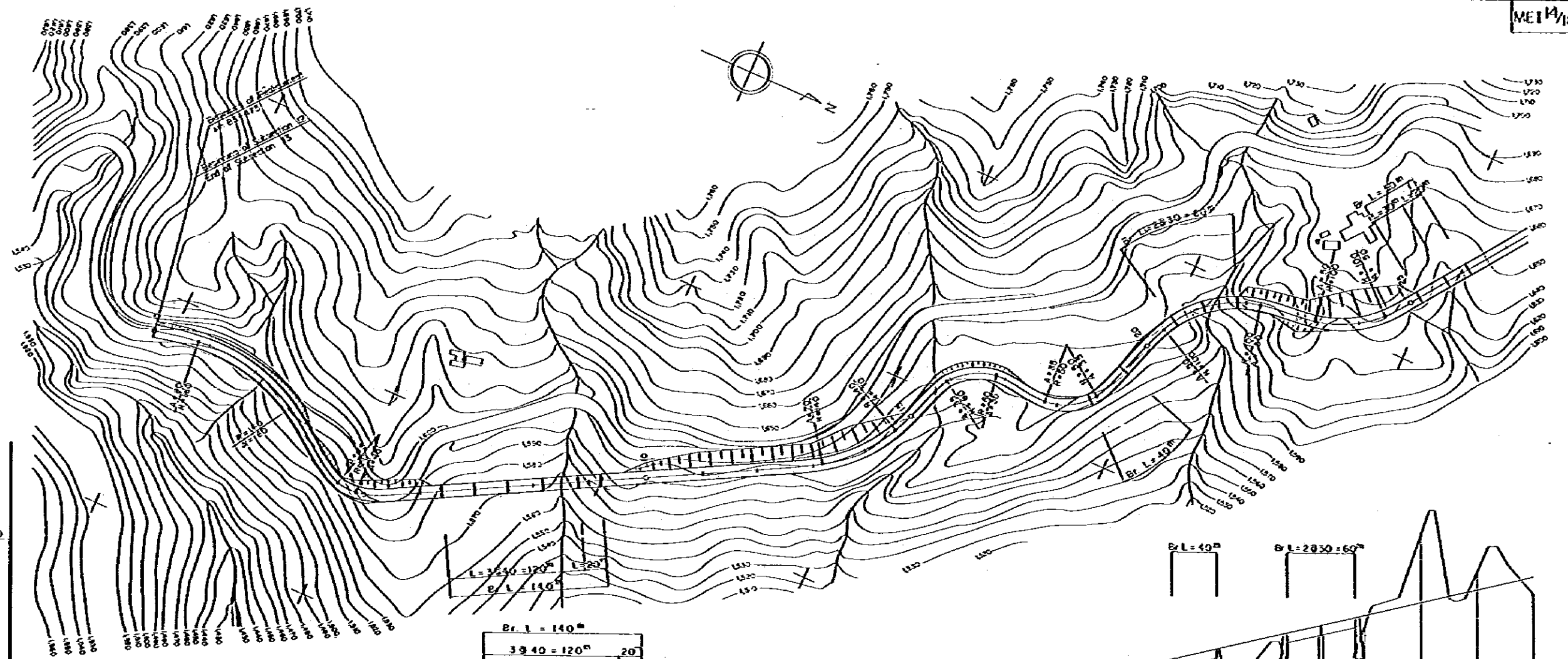
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL CASE.

DATUM LINE DL=1,525																										
VERTICAL GRADIENT	$\frac{1}{520}$ (1542) $\frac{1}{530}$ (1903) $\frac{1}{605}$																									
ACCUMULATIVE DISTANCE	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625
STATION	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
HORIZONTAL CURVE	$R = \infty$ $R = 400$ $R = \infty$ $R = 260$ $R = 180$ $R = 300$																									

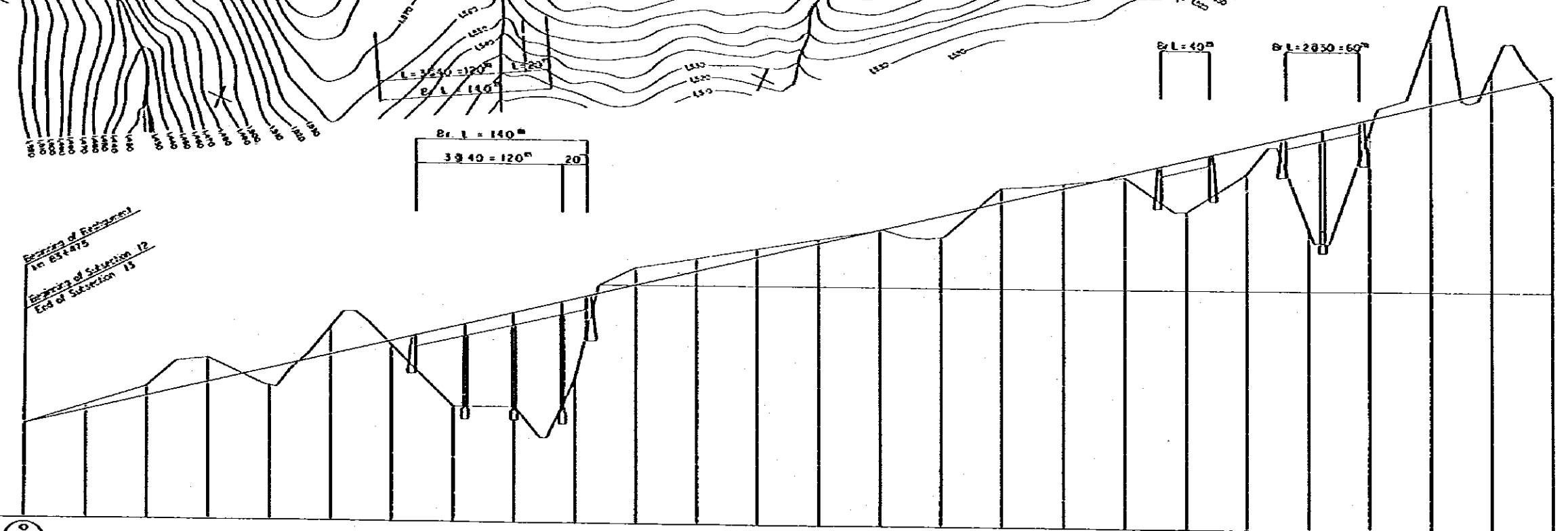


REDUCED PLAN
 SCALES SHOWN HEREIN APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE DL=1,500																	
VERTICAL GRADIENT																	
ACCUMULATIVE DISTANCE	6 250	6 300	6 350	6 400	6 450	6 500	6 550	6 600	6 650	6 700	6 750	6 800	6 850	6 900	6 950	7 000	7 050
STATION	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141 (8+624)
HORIZONTAL CURVE																	



1,650
1,600



REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL ONE

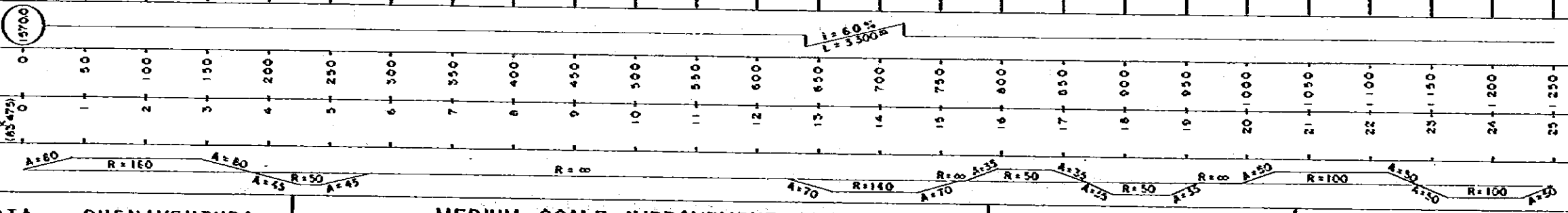
DATUM LINE D.L. = 1,550

VERTICAL GRADIENT

ACCUMULATIVE DISTANCE

STATION

HORIZONTAL CURVE



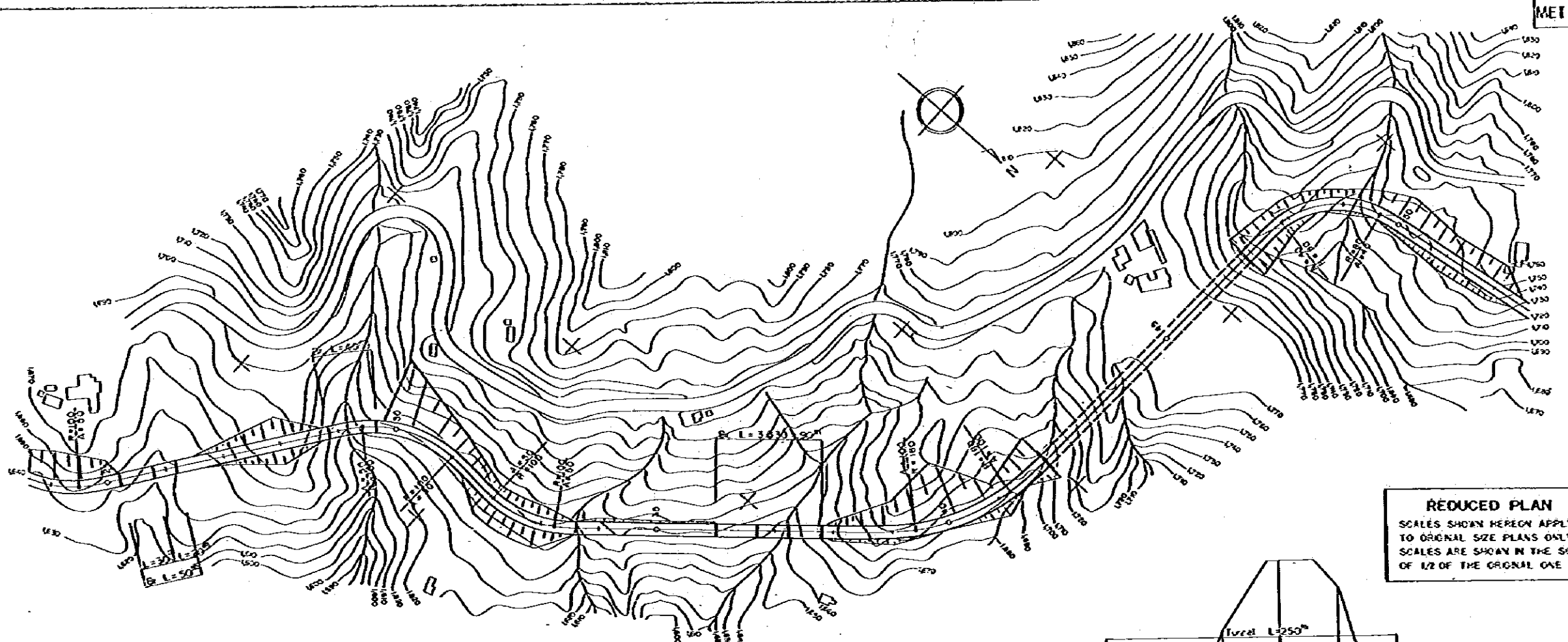
M O P T

BOGOTA — BUENAVENTURA
 ROAD PROJECT

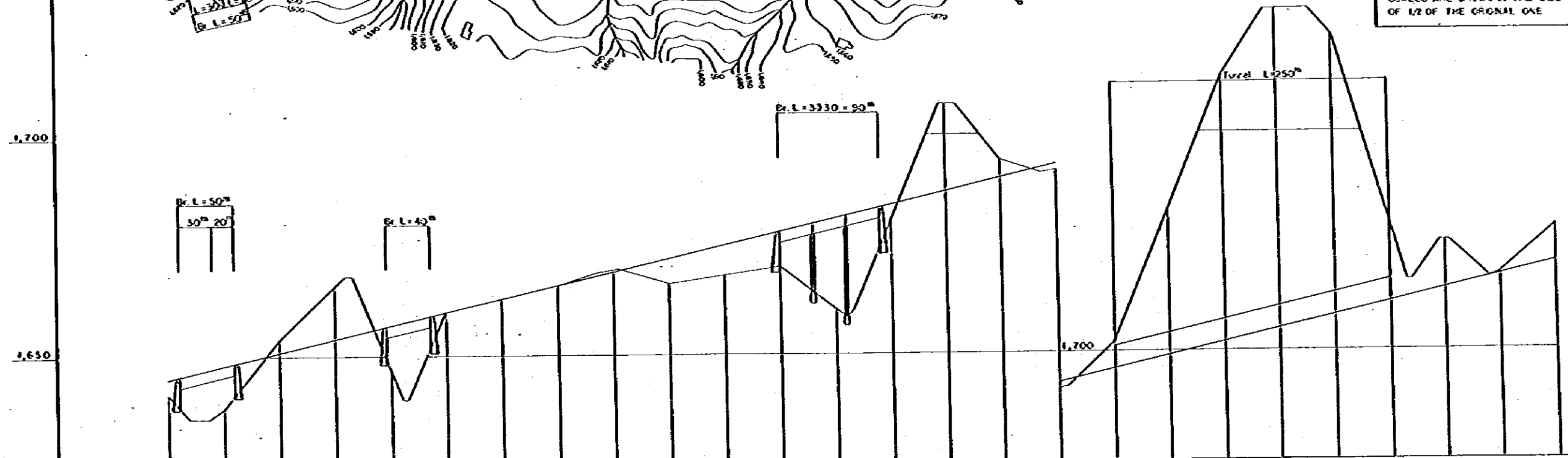
MEDIUM SCALE IMPROVEMENT PLAN
 SUBSECTION 13
 KM 83+475 — KM 87+622 (I)

SCALE H = 1 : 2000
 V = 1 : 500

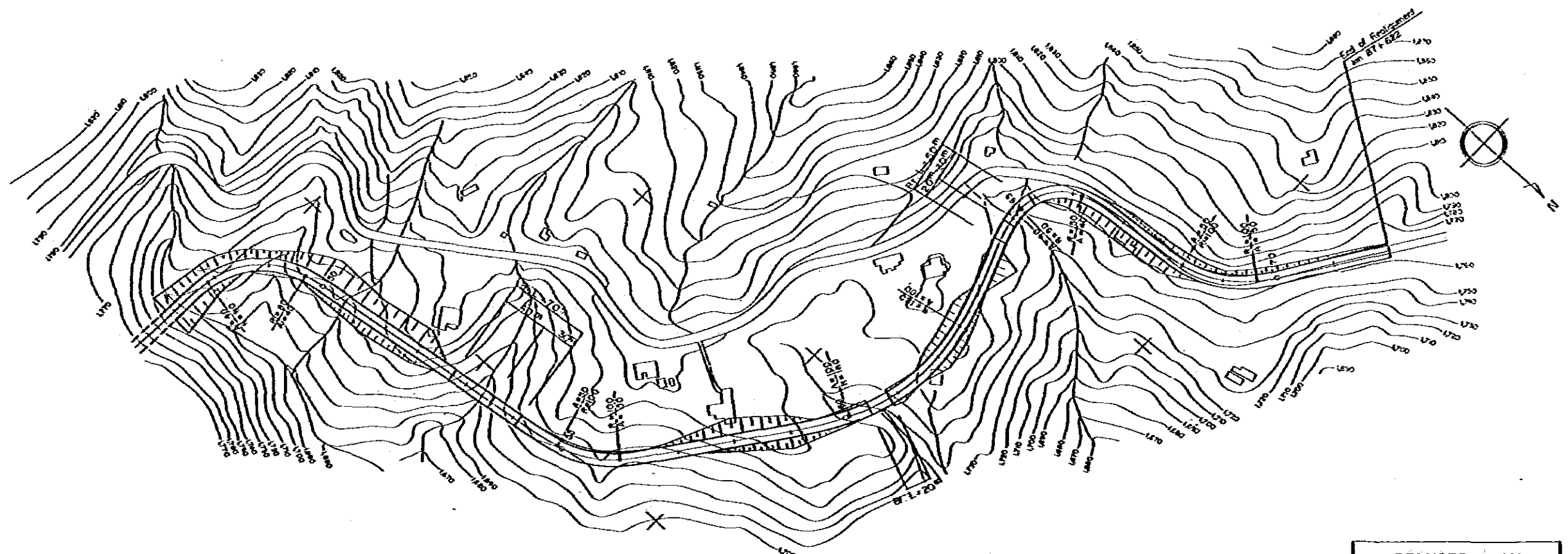
DATE MARCH 1982
 SHEET No. 67 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

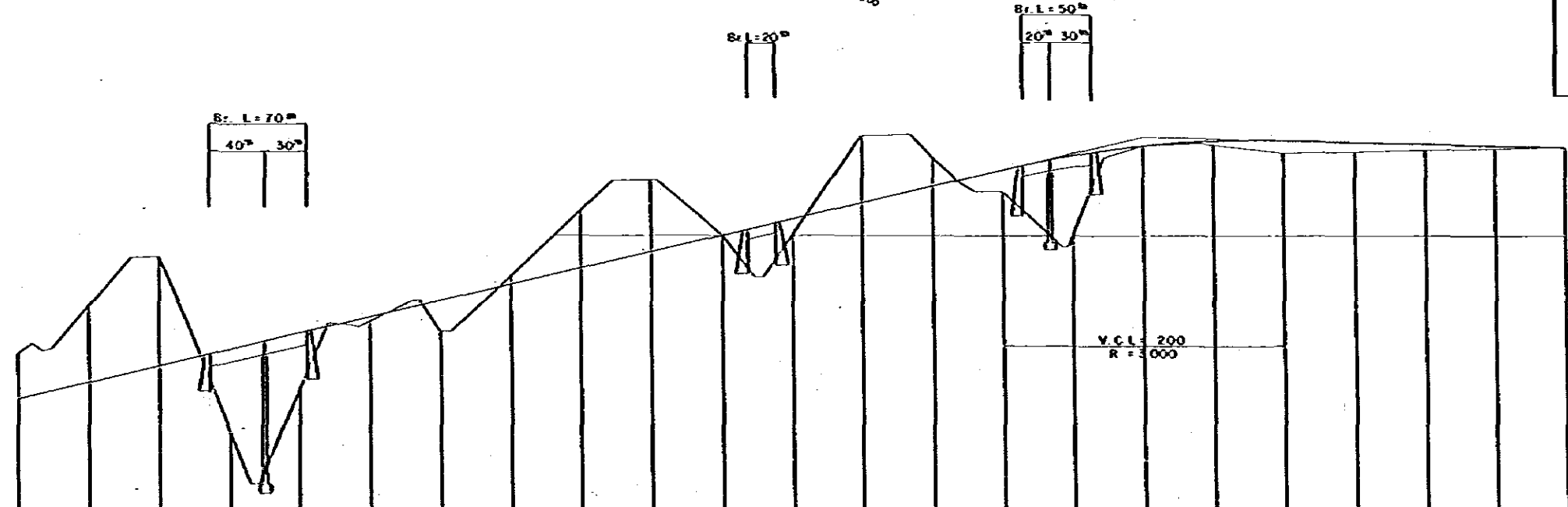


DATUM LINE	OL = 1,625																											
VERTICAL GRADIENT	$1:60\%$ $L = 3,500m$																											
ACCUMULATIVE DISTANCE	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500		
STATION	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50		
HORIZONTAL CURVE	R = ∞		A = 50		R = 100		A = 50		R = 100		A = 50		R = ∞		A = 100		R = 180		A = 100		R = ∞		A = 40		R = 80		A = 50	



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

1,800
 1,750



DATUM LINE DL=1,700

VERTICAL GRADIENT
 ACCUMULATIVE DISTANCE
 STATION
 HORIZONTAL CURVE

VERTICAL GRADIENT	$i = 0.60\%$ $L = 300m$																						$i = 0.62\%$ $L = 300m$				
ACCUMULATIVE DISTANCE	2 300	2 350	2 400	2 450	2 500	2 550	2 600	2 650	2 700	2 750	2 800	2 850	2 900	2 950	3 000	3 050	3 100	3 150	3 200	3 250	3 300	3 350	3 400	3 450	3 500	3 550	3 600
STATION	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
HORIZONTAL CURVE	$R = \infty$																						$R = 100$	$R = \infty$			

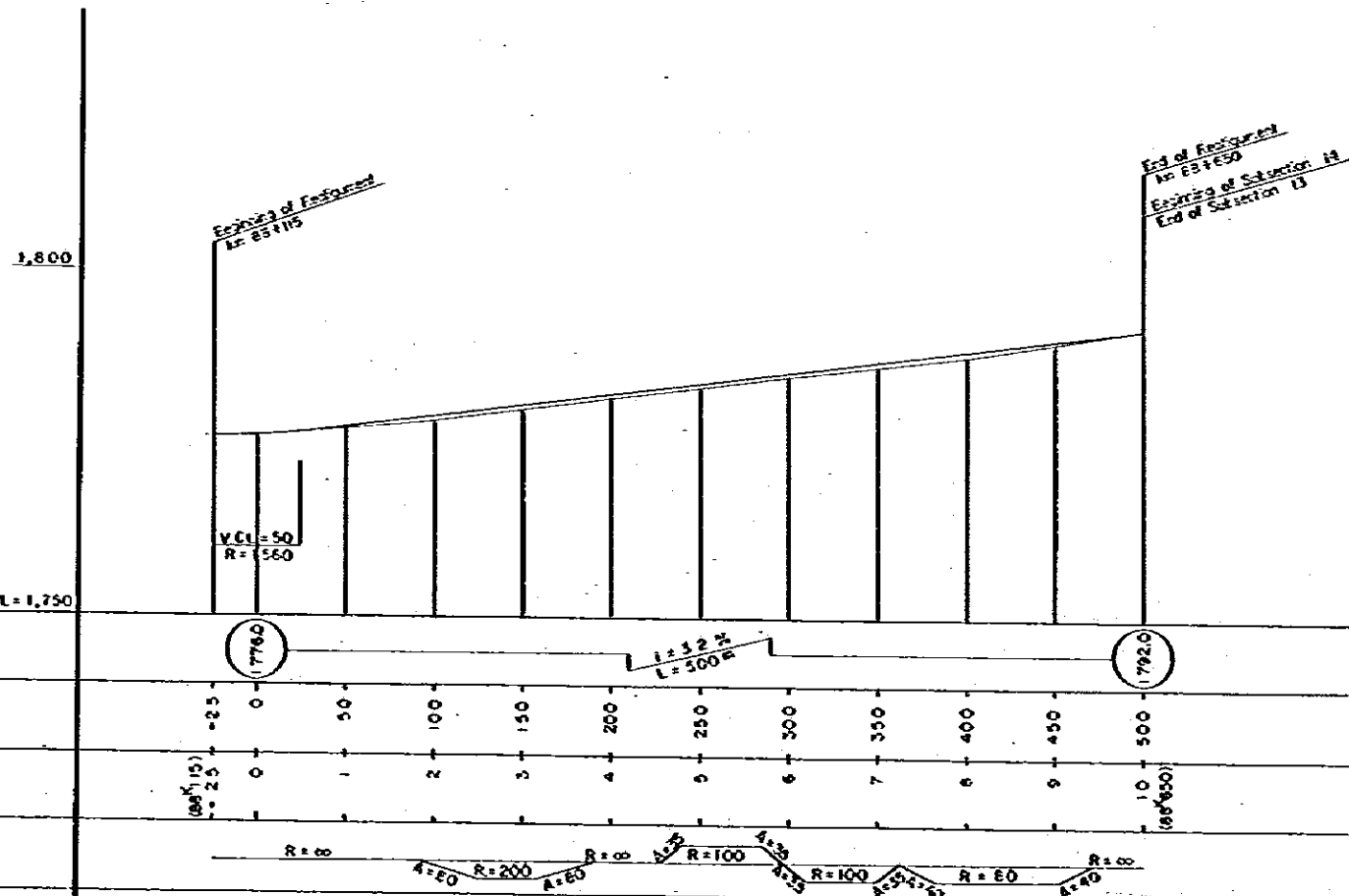
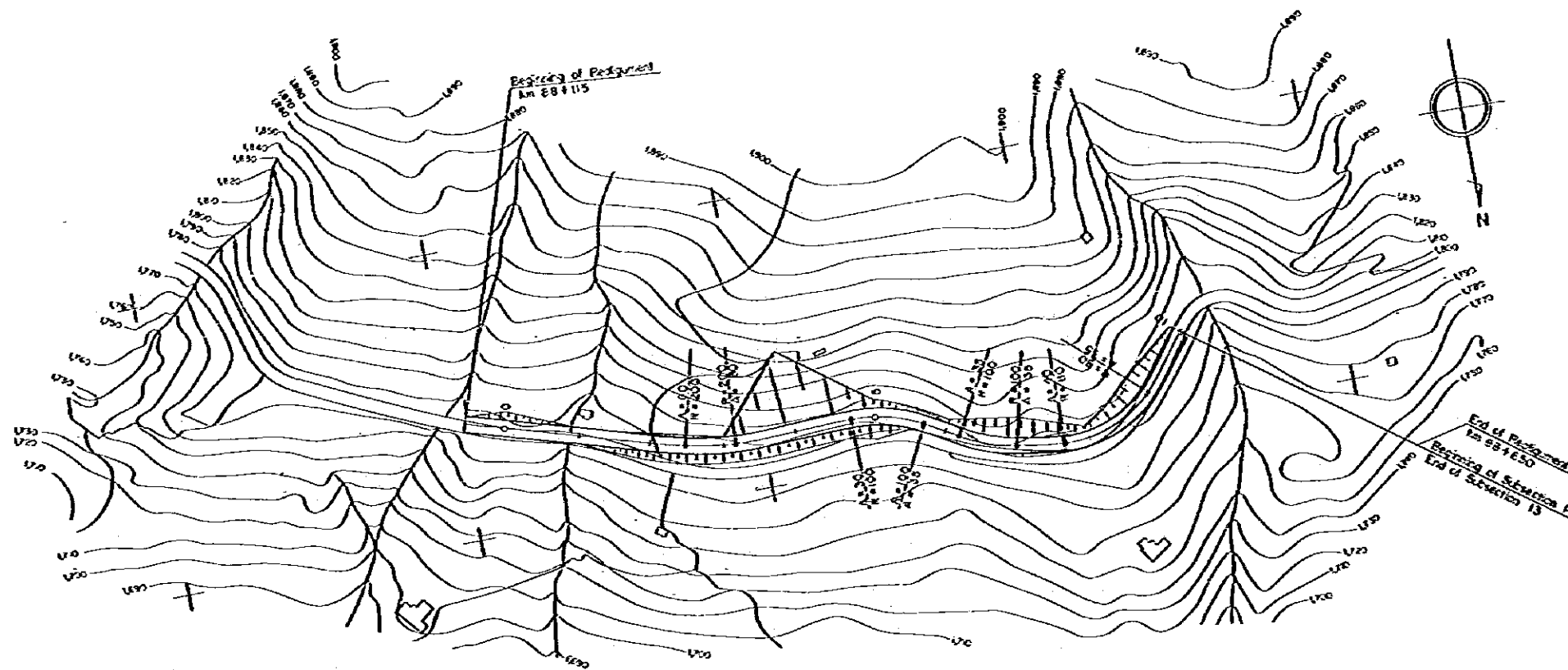
M O P T

BÓGOTA — BUENAVENTURA
 ROAD PROJECT

MEDIUM SCALE IMPROVEMENT PLAN
 SUBSECTION 13
 KM 83+475 - KM 87+622 (3)

SCALE H=1: 2000
 V=1: 500

DATE MARCH 1982
 SHEET No. 69 OF 135

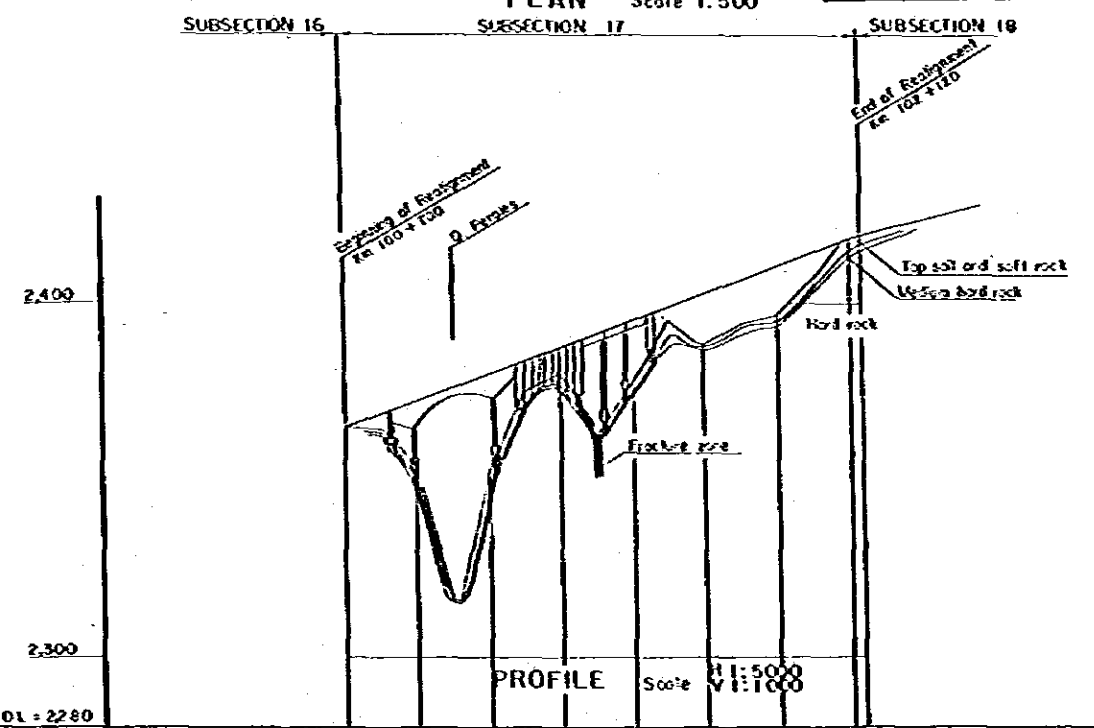
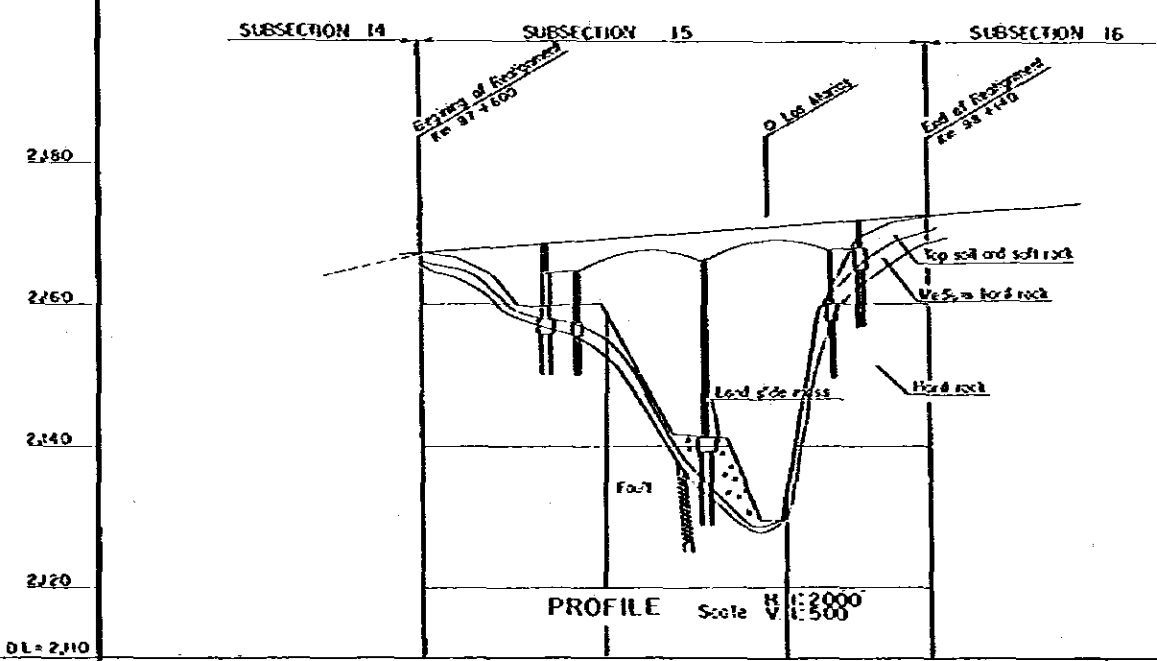
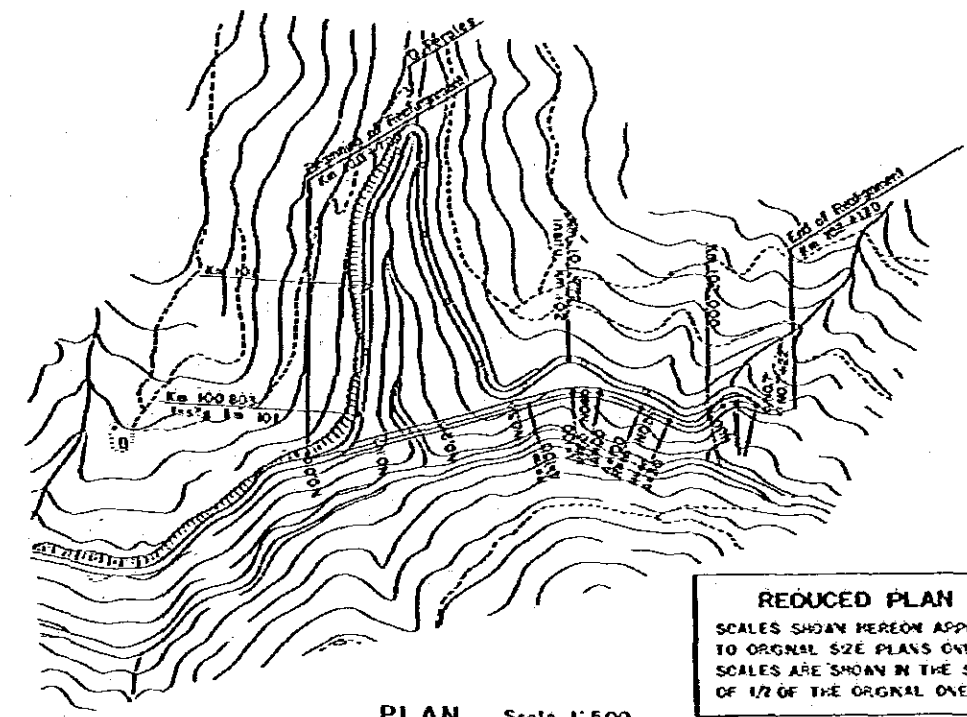
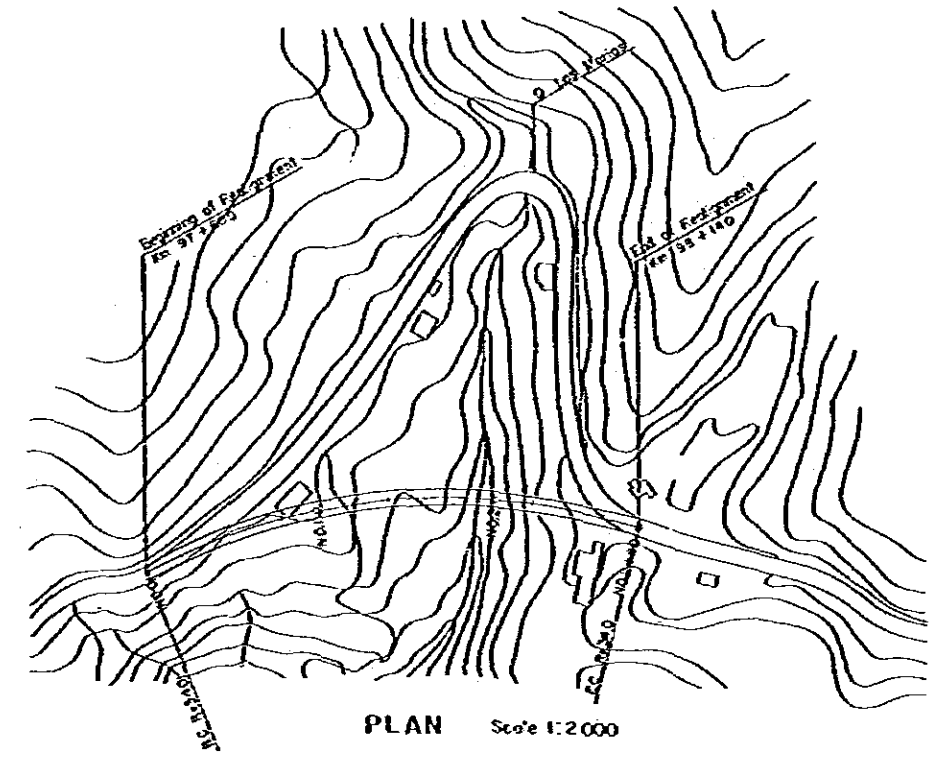


REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE DL=1,750	
VERTICAL GRADIENT	1.52% L=500m
ACCUMULATIVE DISTANCE	0 50 100 150 200 250 300 350 400 450 500
STATION	0 1 2 3 4 5 6 7 8 9 10 (88+650)
HORIZONTAL CURVE	R=∞ A=60 R=200 A=60 R=∞ R=100 A=30 R=100 A=30 R=60 A=40 R=∞

Medium Scale Improvement Plan km 97+600 - km 98+140 (Q. Los Marlas)

Medium Scale Improvement Plan km 100+700 - km 102+120 (Q. Perales)

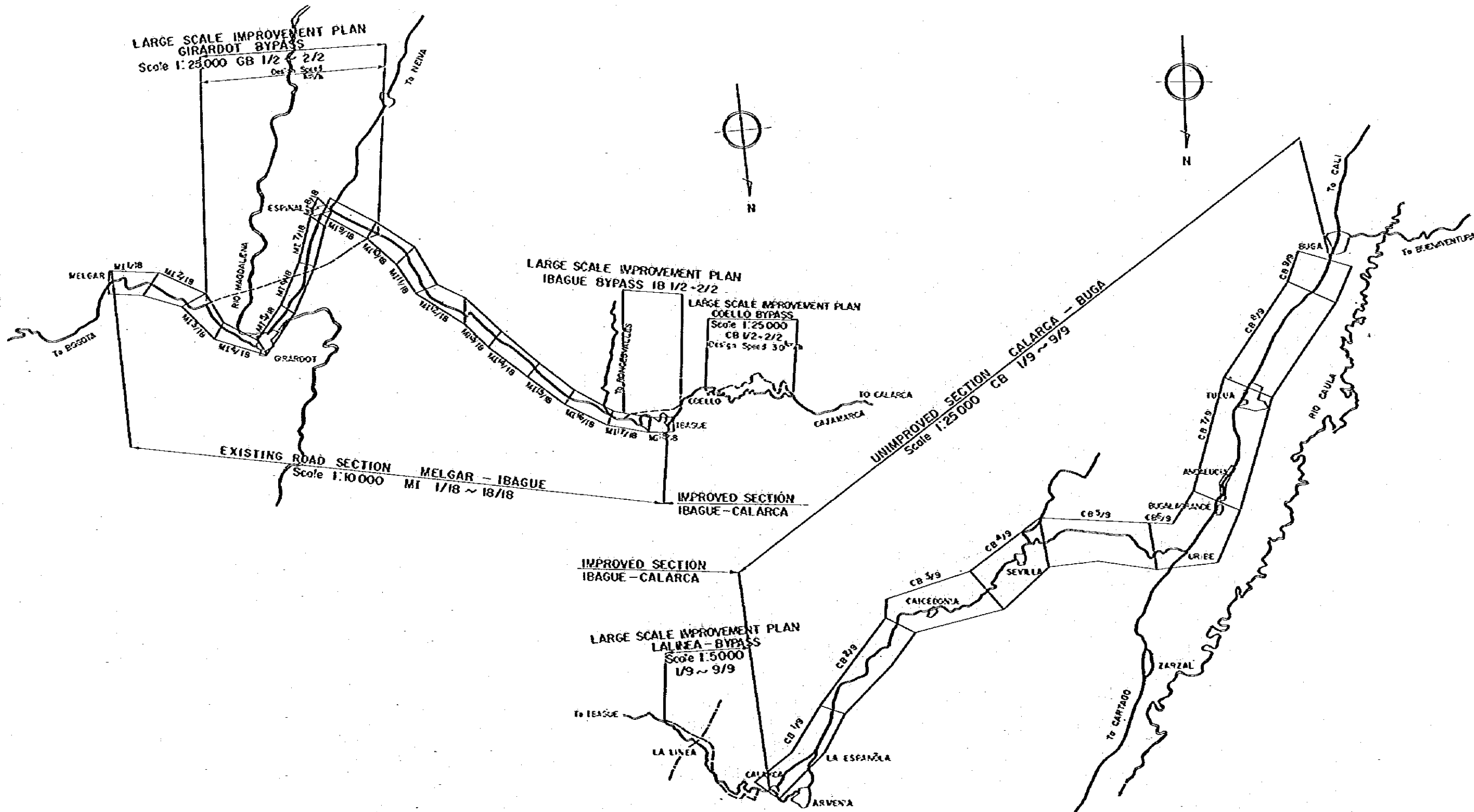


DATUM LINE	DL = 2310
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0, 100, 200, 280
STATION	NO. 0, NO. 1, NO. 2, NO. 4
HORIZONTAL CURVE	R=340

DATUM LINE	DL = 2280
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0, 100, 200, 300, 400, 500, 600, 700, 720
STATION	NO. 0, NO. 1, NO. 2, NO. 3, NO. 4, NO. 5, NO. 6, NO. 7, NO. 8
HORIZONTAL CURVE	R=300, R=350, R=400, R=450, R=500, R=550, R=600, R=650, R=700, R=750, R=800

2. LARGE SCALE IMPROVEMENT PLANS AND UNIMPROVED SECTIONS

2-1 KEY MAP -----	72				
2-2 TYPICAL CROSS SECTIONS -----	73	2-3-4 LA LINEA BYPASS 1:5000			KM 18+000-KM 24+000 ----- 101
2-3 PLAN AND PROFILE OF LARGE SCALE IMPROVEMENT PLANS		STA. 0+000 - STA. 3+000 ----	80		KM 24+000-KM 30+000 ----- 102
2-3-1 GIRARDOT BYPASS		STA. 3+000 - STA. 6+000 ----	81		KM 30+000-KM 36+000 ----- 103
ALTERNATIVE ROUTES -----	74	STA. 6+000 - STA. 9+000 ----	82		KM 36+000-KM 42+000 ----- 104
PLAN AND PROFILE -----	75	STA. 9+000 - STA. 12+000 ----	83		KM 42+000-KM 48+000 ----- 105
		STA. 12+000 - STA. 15+000 ----	84		KM 48+000-KM 54+000 ----- 106
		STA. 15+000 - STA. 18+000 ----	85	2-4-2 CALARCA - BUGA	
		STA. 18+000 - STA. 21+000 ----	86	(Calarca - Uribe) 1:25000	
		STA. 21+000 - STA. 24+000 ----	87	KM135+600-KM151+000 -----	108
		STA. 24+000 - STA. 27+000 ----	88	KM151+000-KM167+000 -----	109
		STA. 27+000 - STA. 29+850 ----	89	KM167+000-KM183+000 -----	110
				KM183+000-KM199+000 -----	111
		2-4 PLAN AND PROFILE OF UNIMPROVED SECTION		KM199+000-KM215+000 -----	112
		2-4-1 MELGAR - IBAGUE		KM215+000-KM220+680 -----	113
		(Melgar - Espinal) 1:10000			
2-3-2 IBAGUE BYPASS		KM 99+200 - KM 105+000 -----	90	(Uribe - Buga) 1:25000	
ALTERNATIVE ROUTES -----	76	KM 105+000 - KM 111+000 -----	91	KM 65+670 - KM 73+000 -----	113
PLAN AND PROFILE -----	77	KM 111+000 - KM 117+000 -----	92	KM 73+000 - KM 89+000 -----	114
		KM 117+000 - KM 123+000 -----	93	KM 89+000 - KM 105+000 -----	115
		KM 123+000 - KM 129+000 -----	94	KM 105+000 - KM 109+300 -----	116
		KM 129+000 - KM 135+000 -----	95		
		KM 135+000 - KM 141+000 -----	96		
		KM 141+000 - KM 143+300 -----	97		
		(Espinal - Ibaguè) 1:10000			
2-3-3 COELLO BYPASS 1:25000		KM 0+000 - KM 6+000 -----	98		
PLAN -----	78	KM 6+000 - KM 12+000 -----	99		
PROFILE -----	79	KM 12+000 - KM 18+000 -----	100		



REDUCED PLAN
 SCALES SHOWN HEREON APPLY
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 SCALES ARE SHOWN IN THE SIZE
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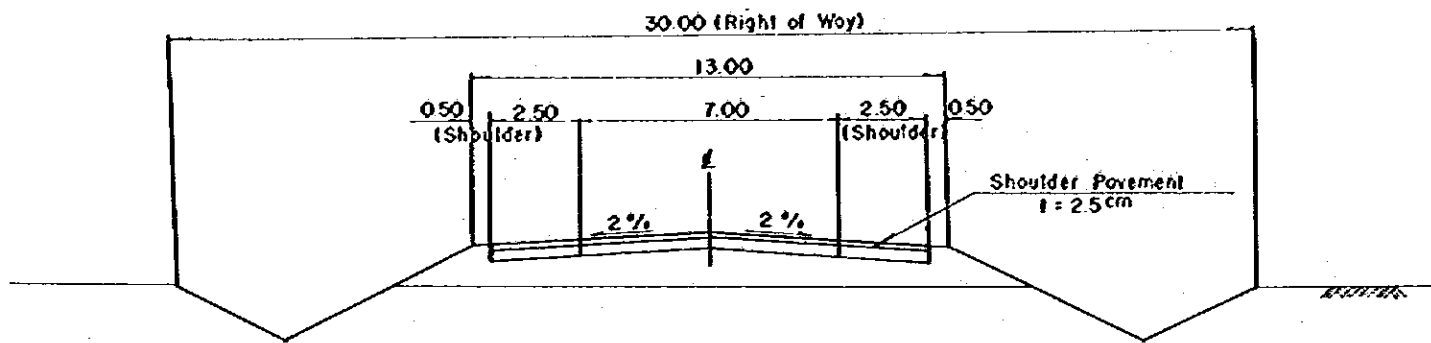
M O P T

BOGOTA - BUENAVENTURA
 ROAD PROJECT

KEY MAP

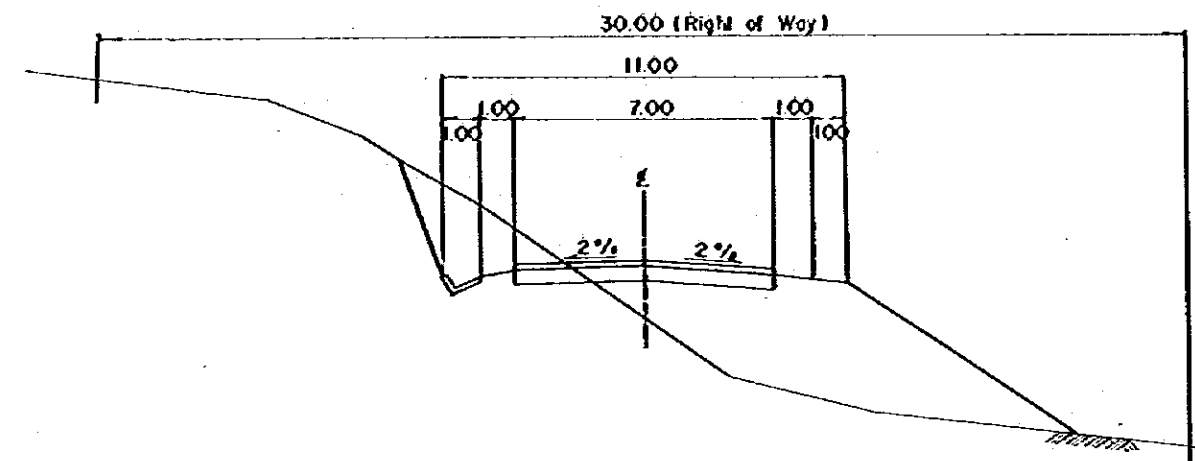
Approximate
 SCALE 1:200 000

DATE MARCH 1982
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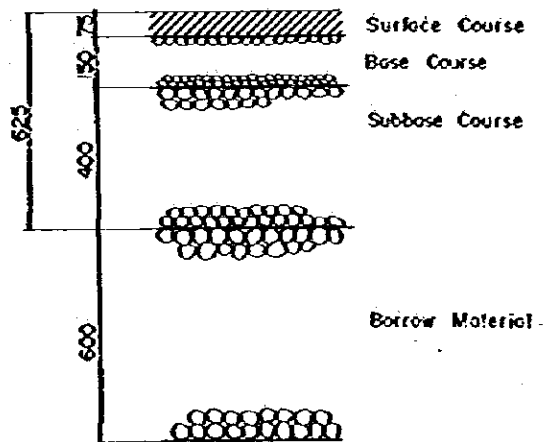
Girardot Bypass

Scale 1:200



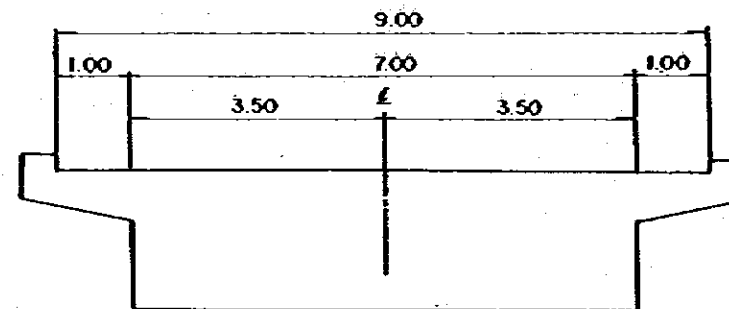
Ibaguè, Coello and La Linea Bypasses

Scale 1:200



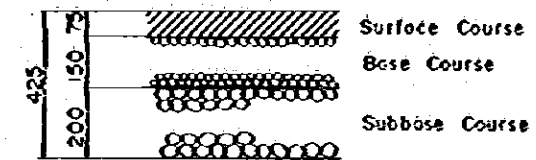
Pavement Structure of Roadway

Scale 1:20



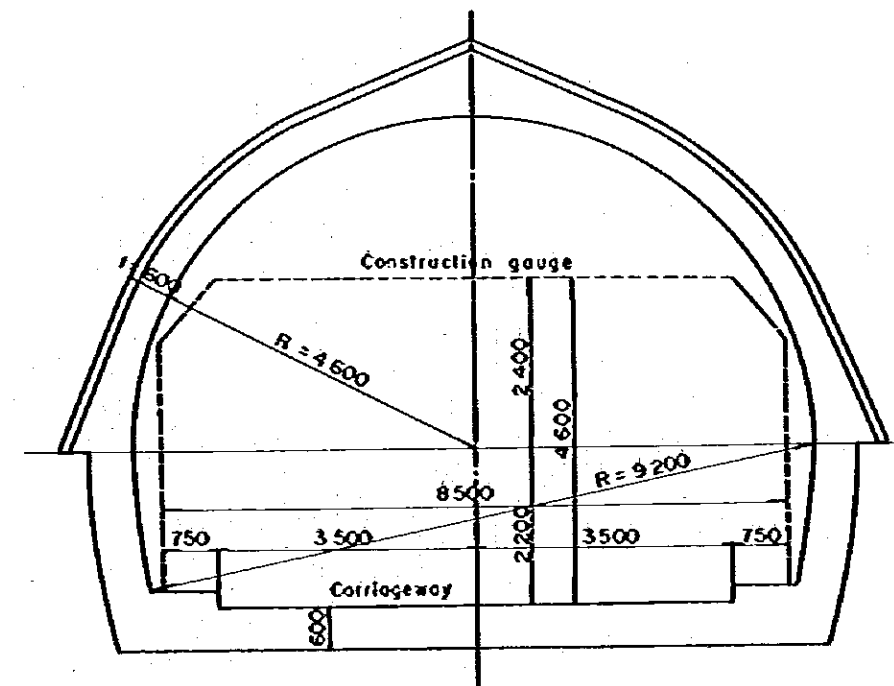
Bridge and Structure Section

Scale 1:100



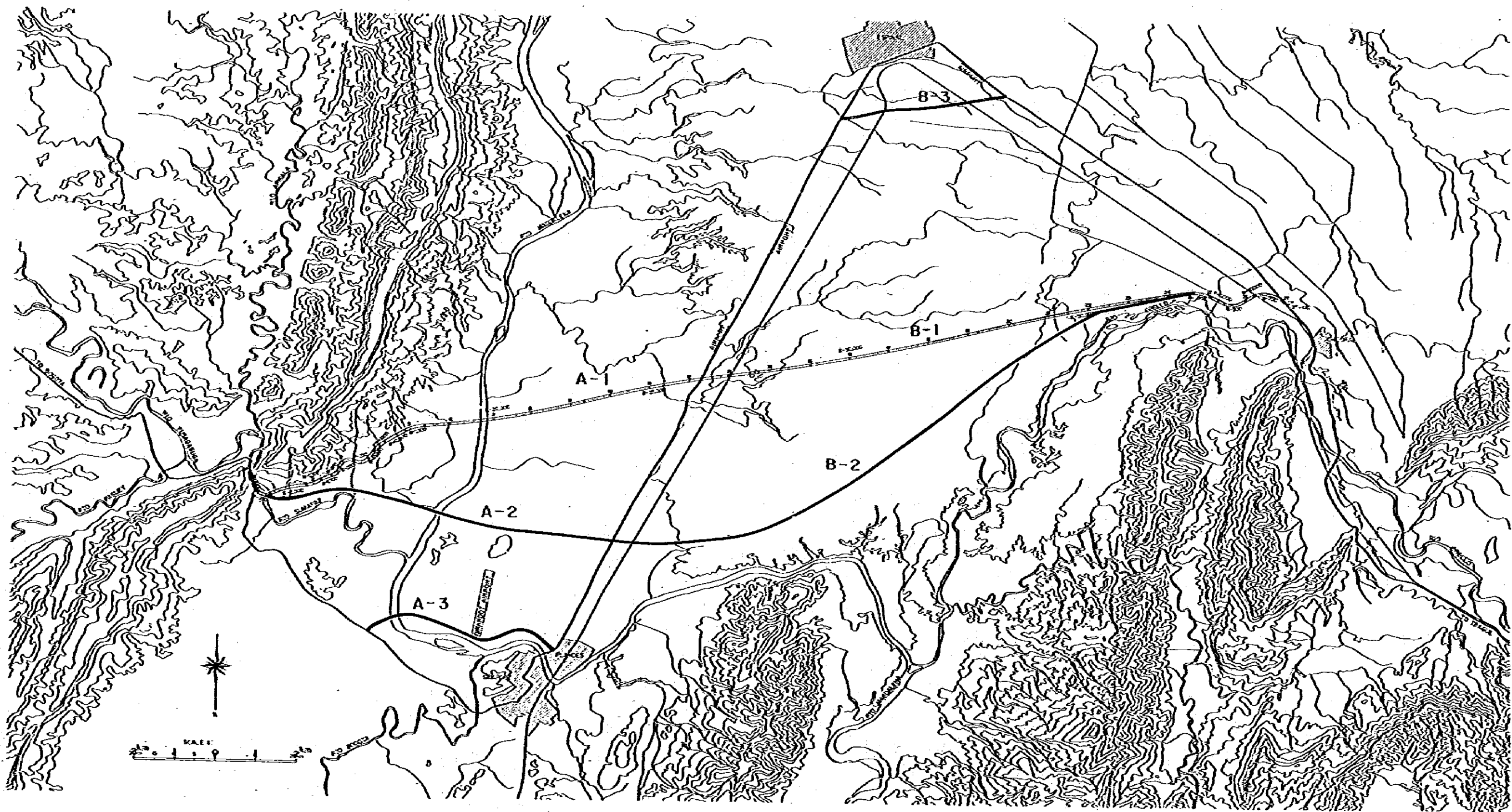
Pavement Structure of Roadway

Scale 1:20



Tunnel Section

Scale 1:100



Note : Girardot Bypass Plan A-1, A-2, A-3
 Espinal Bypass Plan B-1, B-2, B-3

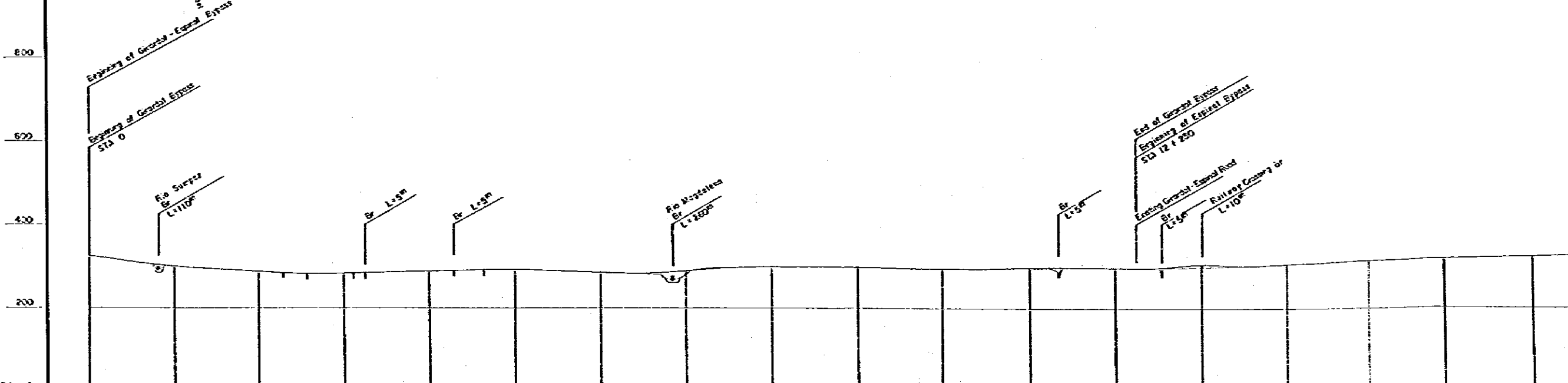
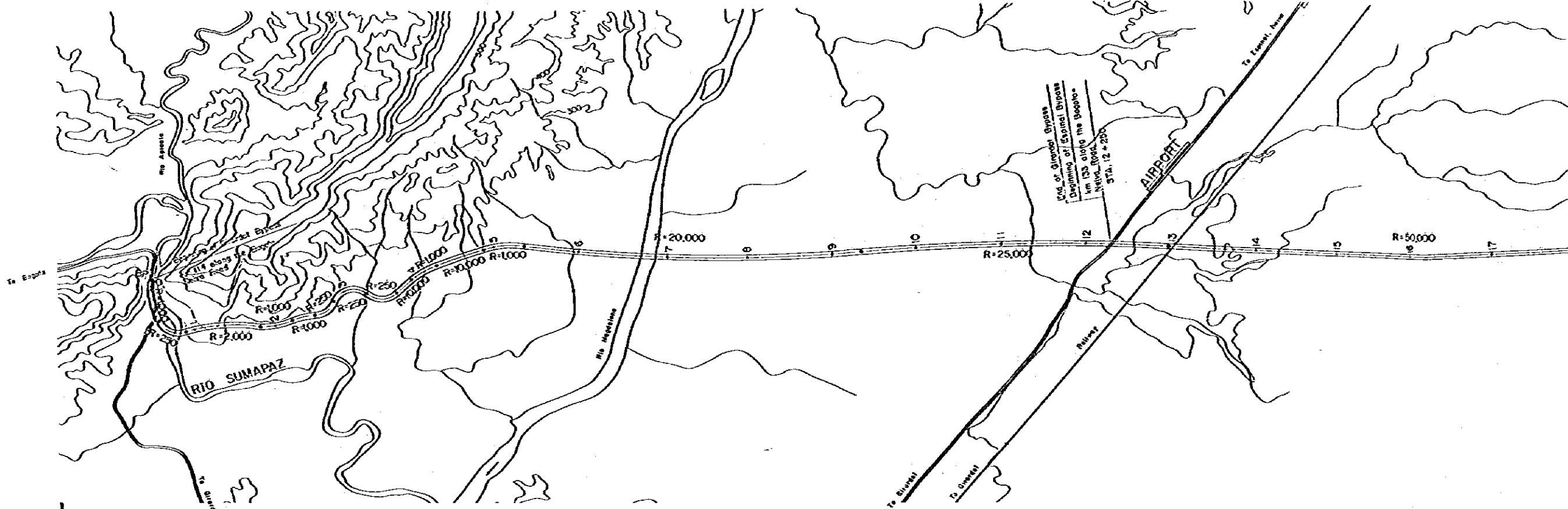
MOPT

BOGOTA - BUENAVENTURA
 ROAD PROJECT

Alternative Routes of Girardot - Espinal Bypass

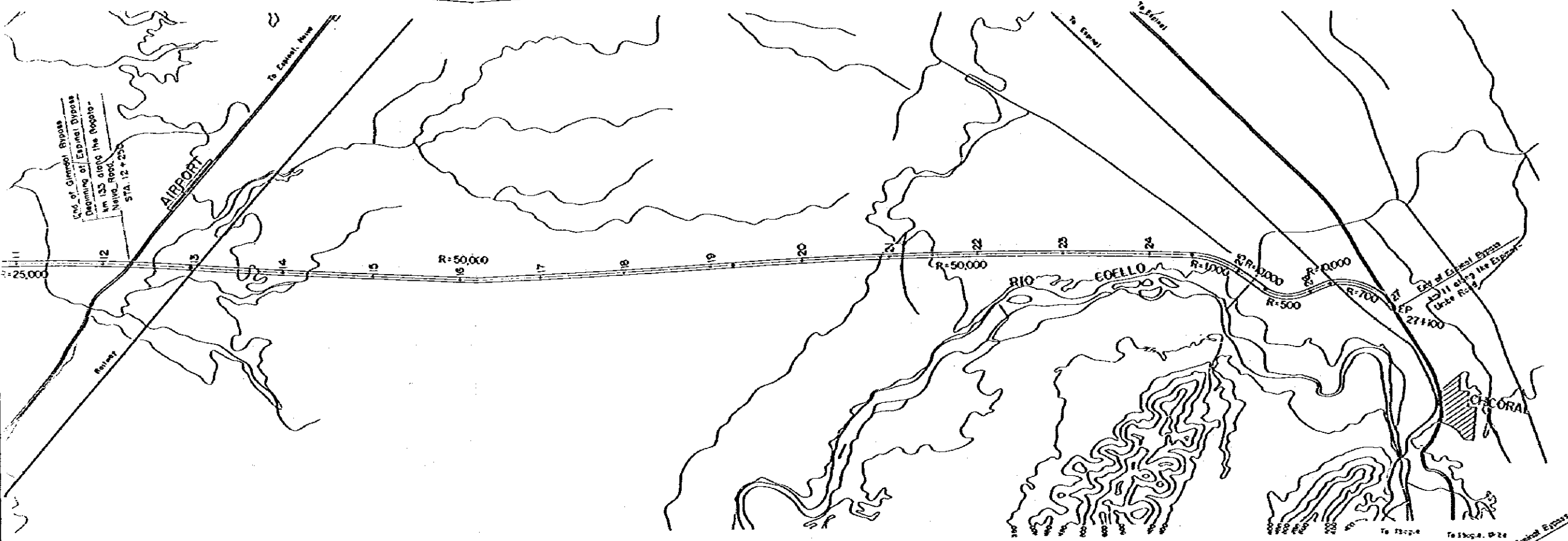
SCALE

DATE MARCH 1982
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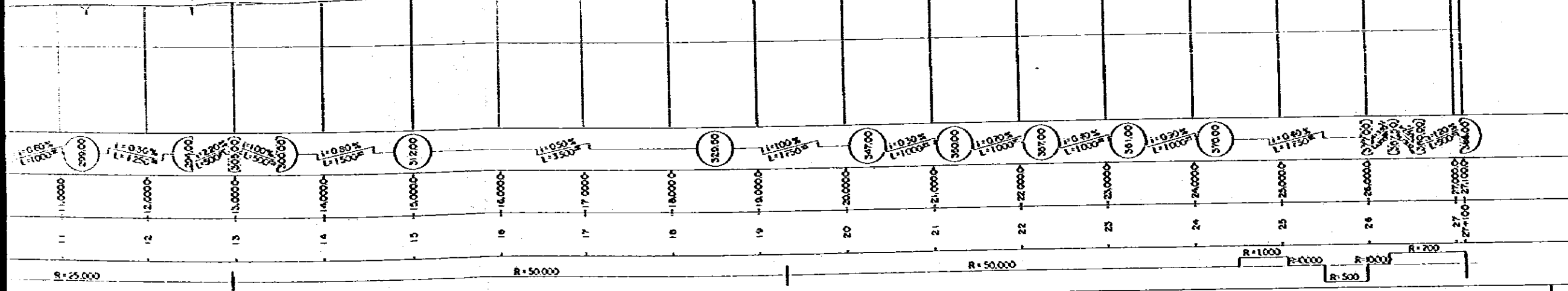


DATUM LINE	DL = 0
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0.0, 1.000, 2.000, 3.000, 4.000, 5.000, 6.000, 7.000, 8.000, 9.000, 10.000, 11.000, 12.000, 13.000, 14.000, 15.000, 16.000, 17.000
STATION	NO. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
HORIZONTAL CURVE	

M O P T
BOGOTA - BUENAVENTURA
LARGE SCALE
ROAD PROJECT
GIRAROT - ESPINAL

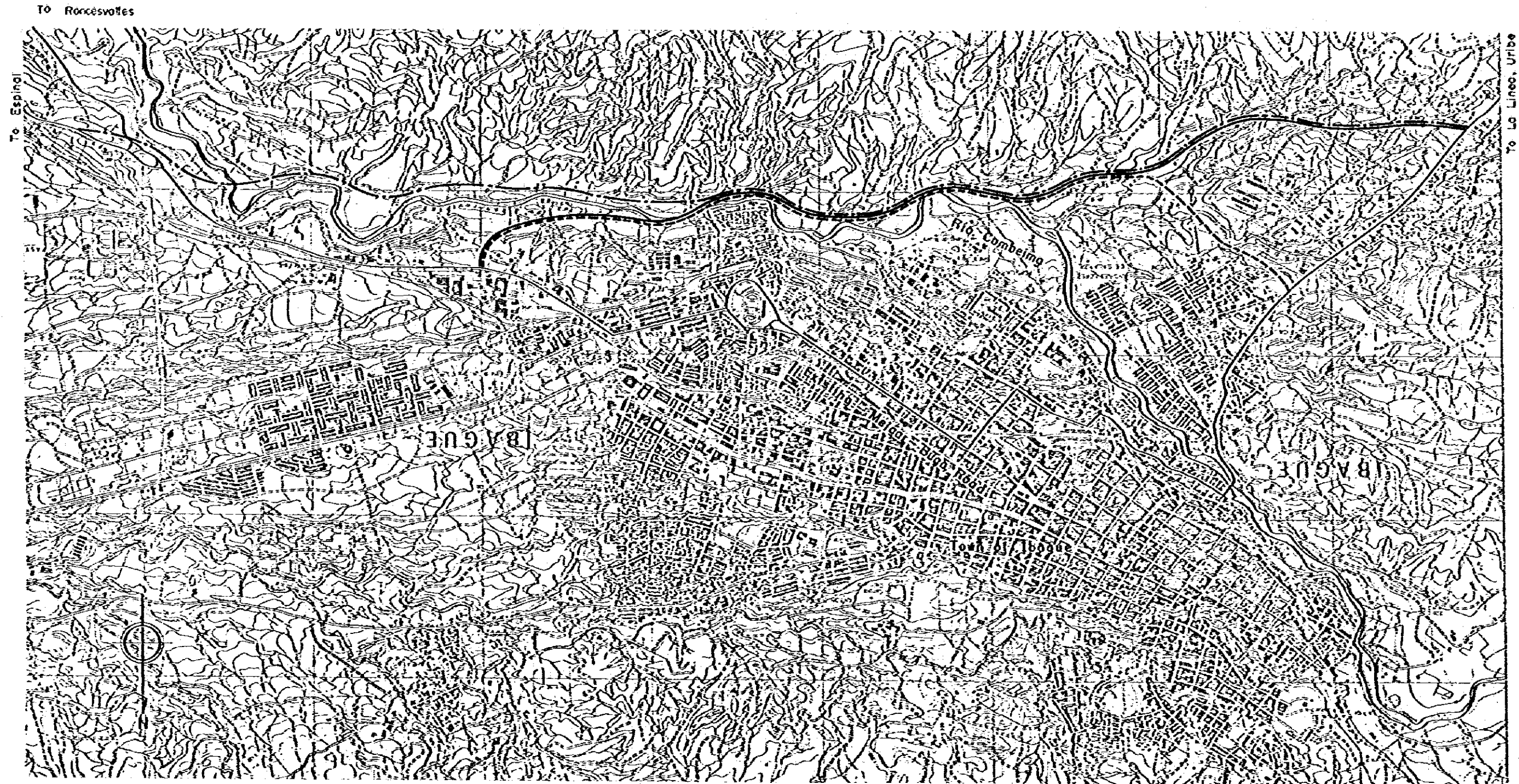


REDUCED PLAN
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 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE



LARGE SCALE IMPROVEMENT PLAN
GIRARQOT - ESPINAL BYPASS PLAN AND PROFILE

DATE MARCH 1982
 SHEET No. 75 OF 135



Note : Alternative Route A ———
 Alternative Route B - - - - -
 Alternative Route C - · - · -

M O P T

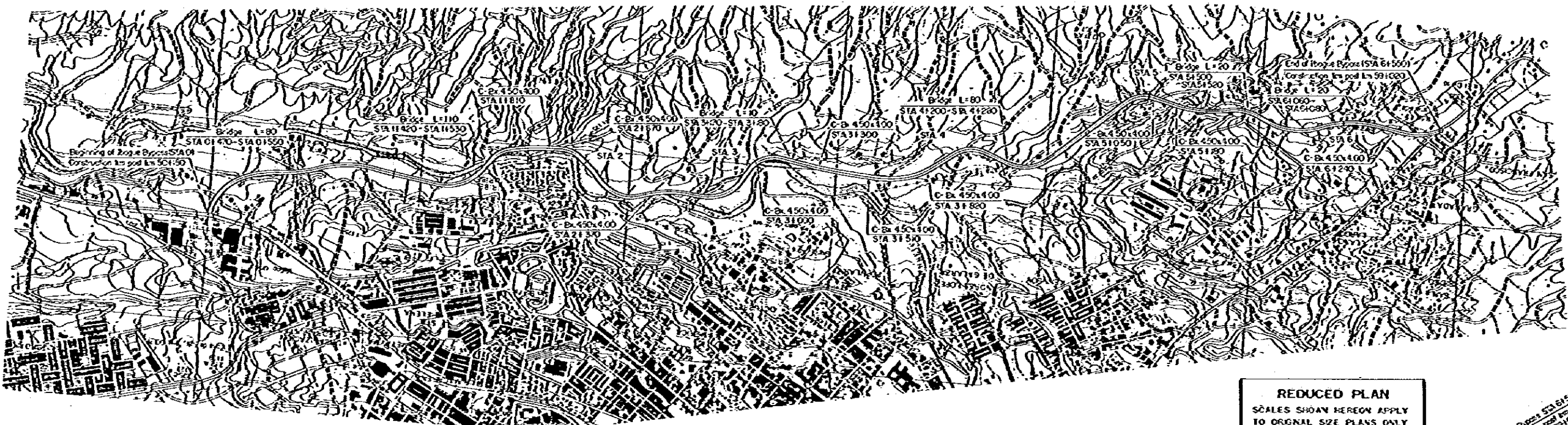
BOGOTÁ - BUENAVENTURA
ROAD PROJECT

LARGE SCALE IMPROVEMENT PLAN
ALTERNATIVE ROUTES OF IBAGUE BYPASS PLAN

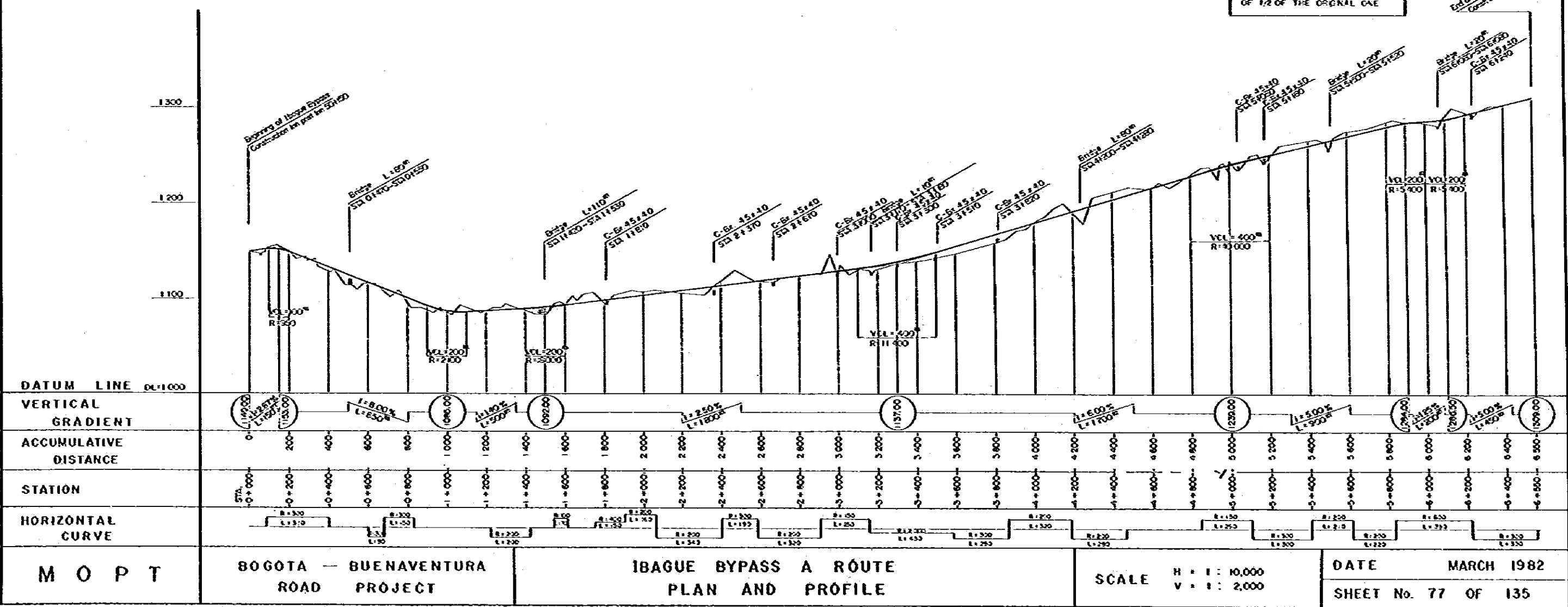
SCALE

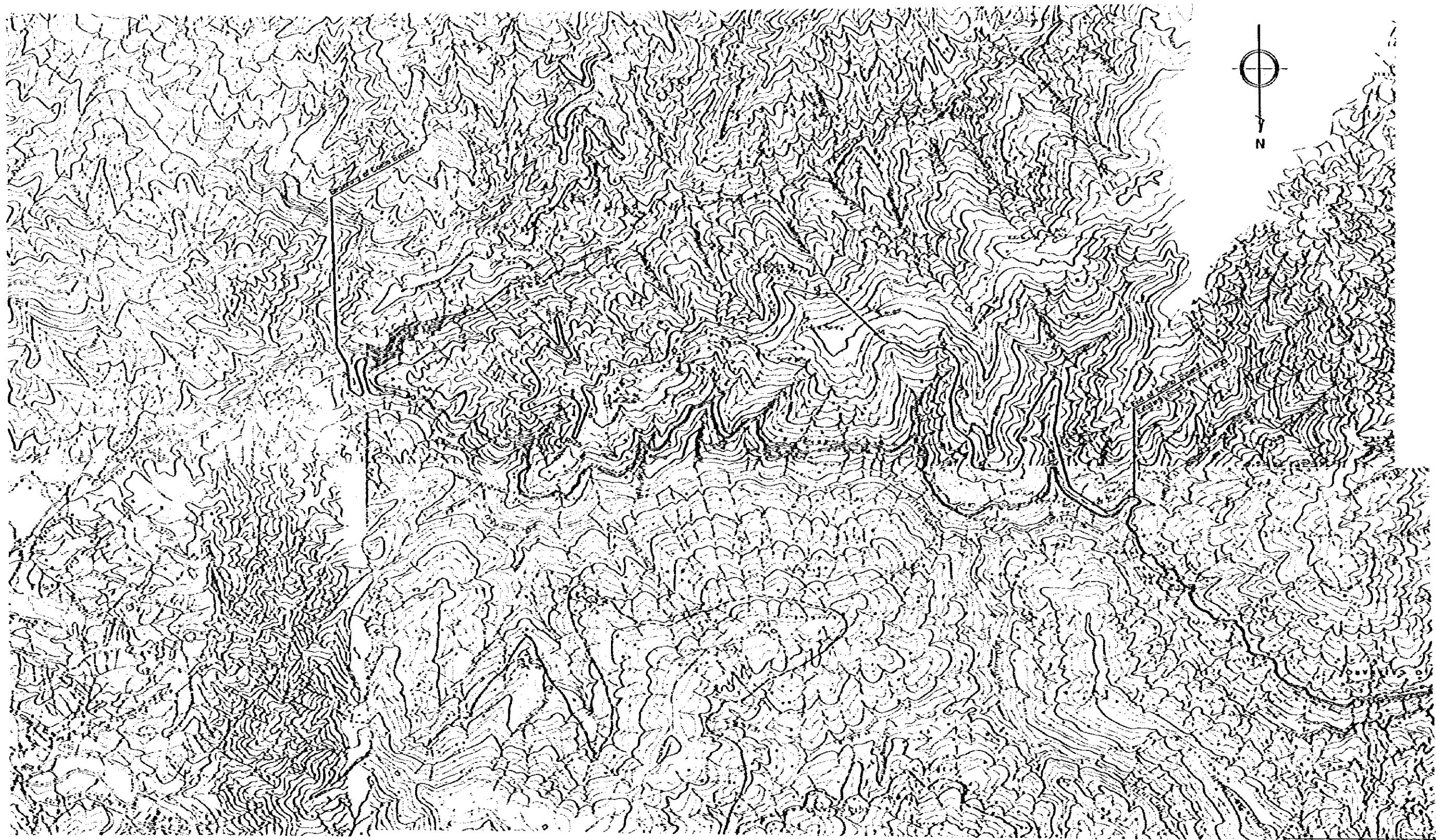
DATE MARCH 1982

SHEET NO. 76 OF 135



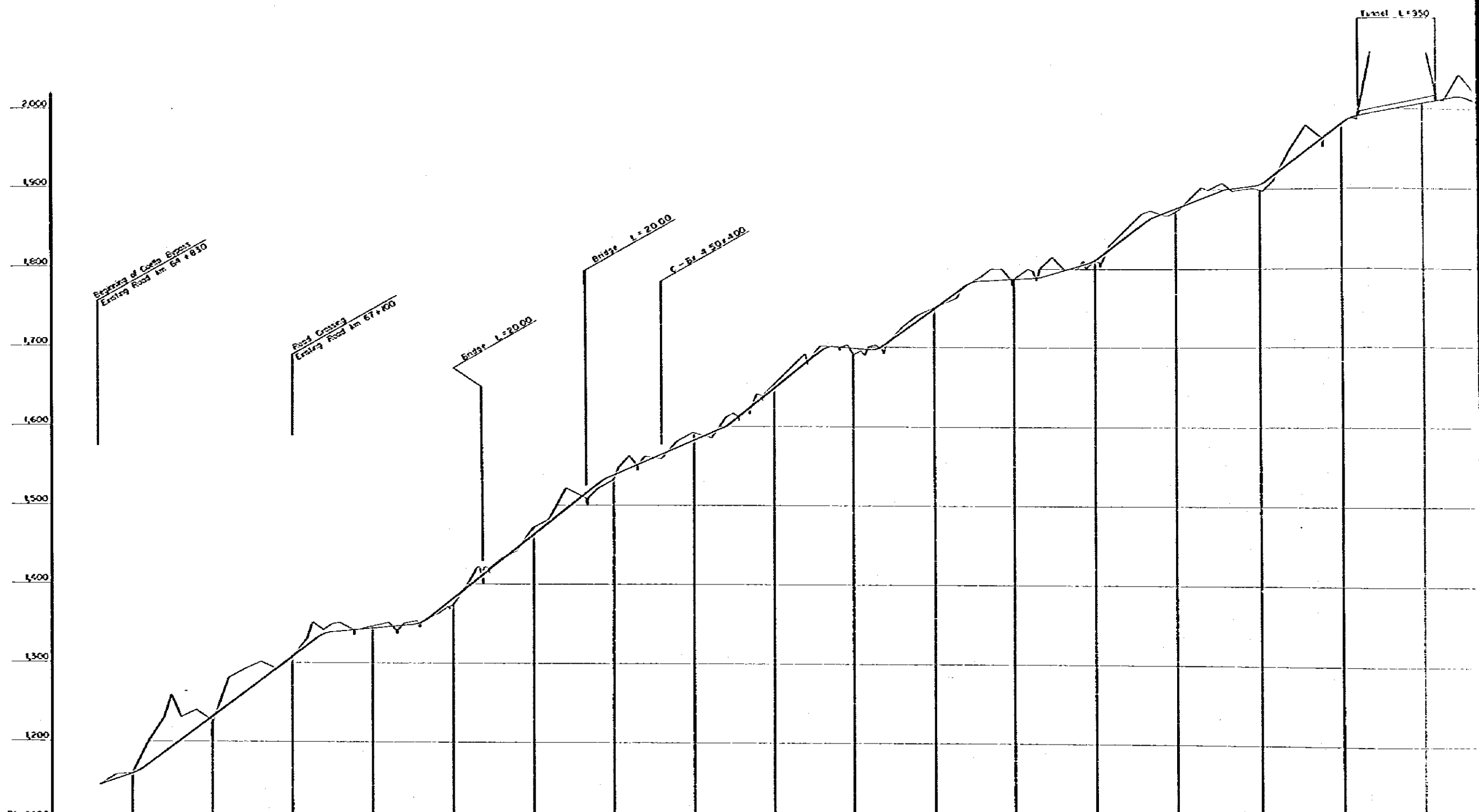
REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL CASE



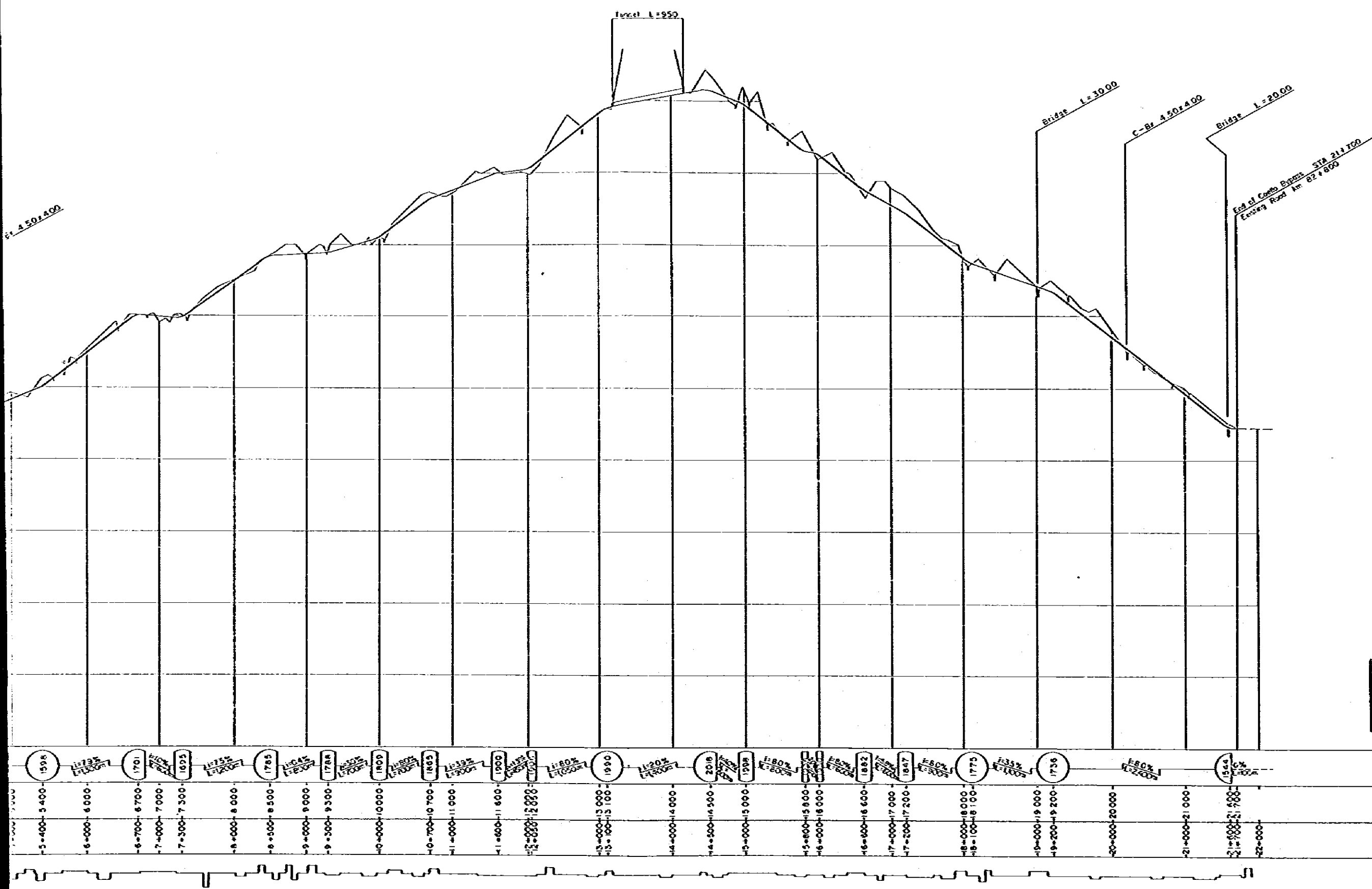


REDUCED PLAN
SCALES SHOWN HEREON APPLY
TO ORIGINAL SIZE PLANS ONLY
SCALES ARE SHOWN IN THE SIZE
OF 1/2 OF THE ORIGINAL ONE

M O P T	BOGOTÁ — BUENAVENTURA ROAD PROJECT	LARGE SCALE IMPROVEMENT PLAN COELLO BYPASS PLAN (ROUTE 1 and 2)	SCALE 1:25000	DATE MARCH 1982 SHEET No. 78 OF 135
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DATUM LINE	DL=1,100
VERTICAL GRADIENT	1184 1182 1336 1348 1532 1596 1701 1895 1785 1788 1809 1865 1900 1990 2016
ACCUMULATIVE DISTANCE	2+350-2 350 2+000-2 000 1+000-1 000 0+000-0 0+400-400 1+000-1 000 1+600-1 600 2+000-2 000 3+000-3 000 3+200-3 200 4+000-4 000 5+000-5 000 5+400-5 400 6+000-6 000 6+700-6 700 7+000-7 000 7+300-7 300 8+000-8 000 8+500-8 500 9+000-9 000 9+300-9 300 10+000-10 000 10+700-10 700 11+000-11 000 11+600-11 600 12+000-12 000 13+000-13 000 13+100-13 100 14+000-14 000 14+500-14 500
STATION	2+350 2+000 1+000 0+000 0+400 1+000 1+600 2+000 3+000 3+200 4+000 5+000 5+400 6+000 6+700 7+000 7+300 8+000 8+500 9+000 9+300 10+000 10+700 11+000 11+600 12+000 13+000 13+100 14+000 14+500
HORIZONTAL CURVE	1184 1182 1336 1348 1532 1596 1701 1895 1785 1788 1809 1865 1900 1990 2016
M O P T	BOGOTA -- BUENAVENTURA ROAD PROJECT
	LARGE SCALE IMPROVEMENT PLAN COELLO BYPASS ROUTE 2 PROFILE

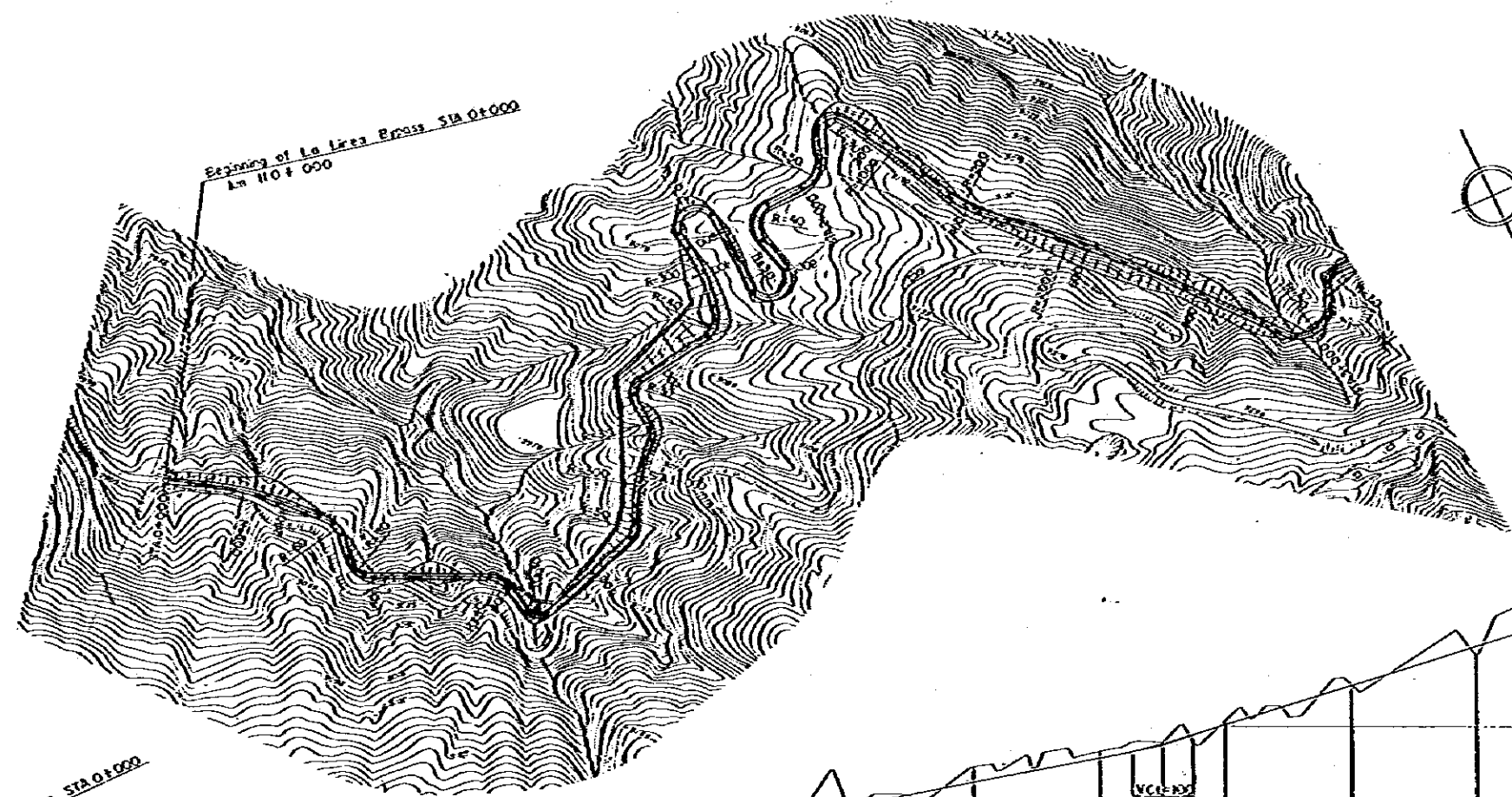


REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL CASE

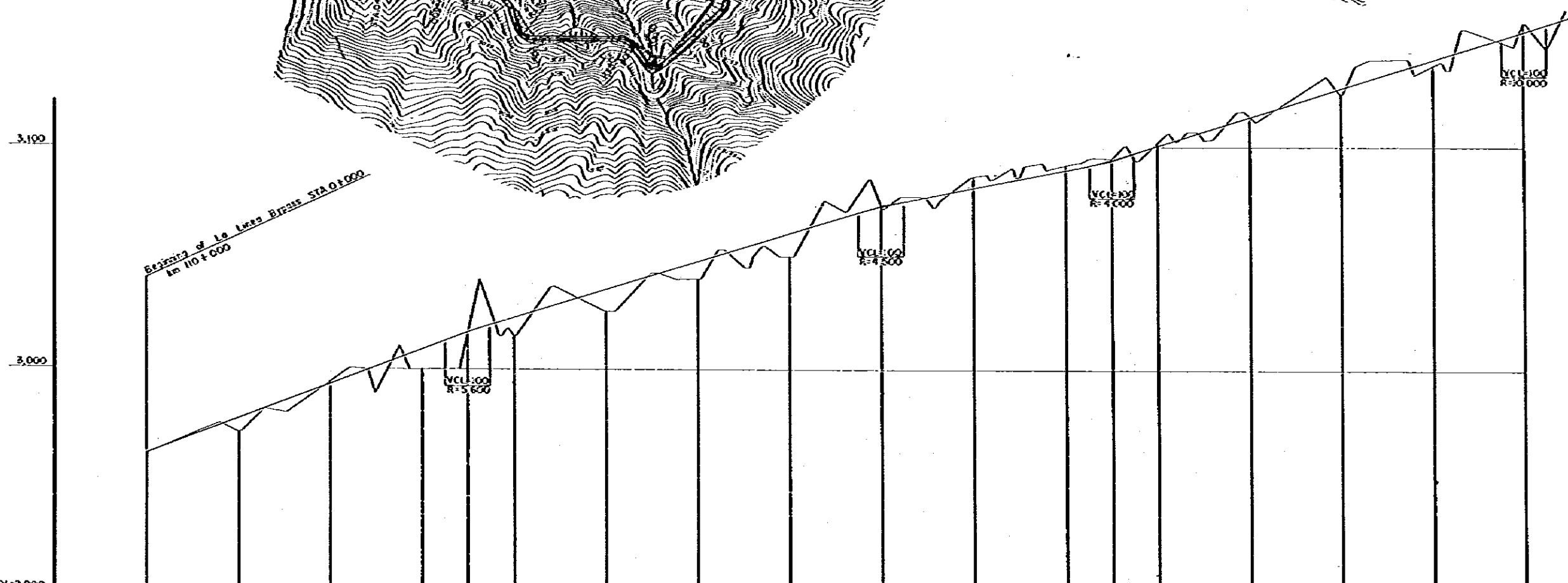
LARGE SCALE IMPROVEMENT PLAN
COELLO BYPASS ROUTE 2 PROFILE

SCALE H=1:25000
 V=1:2500

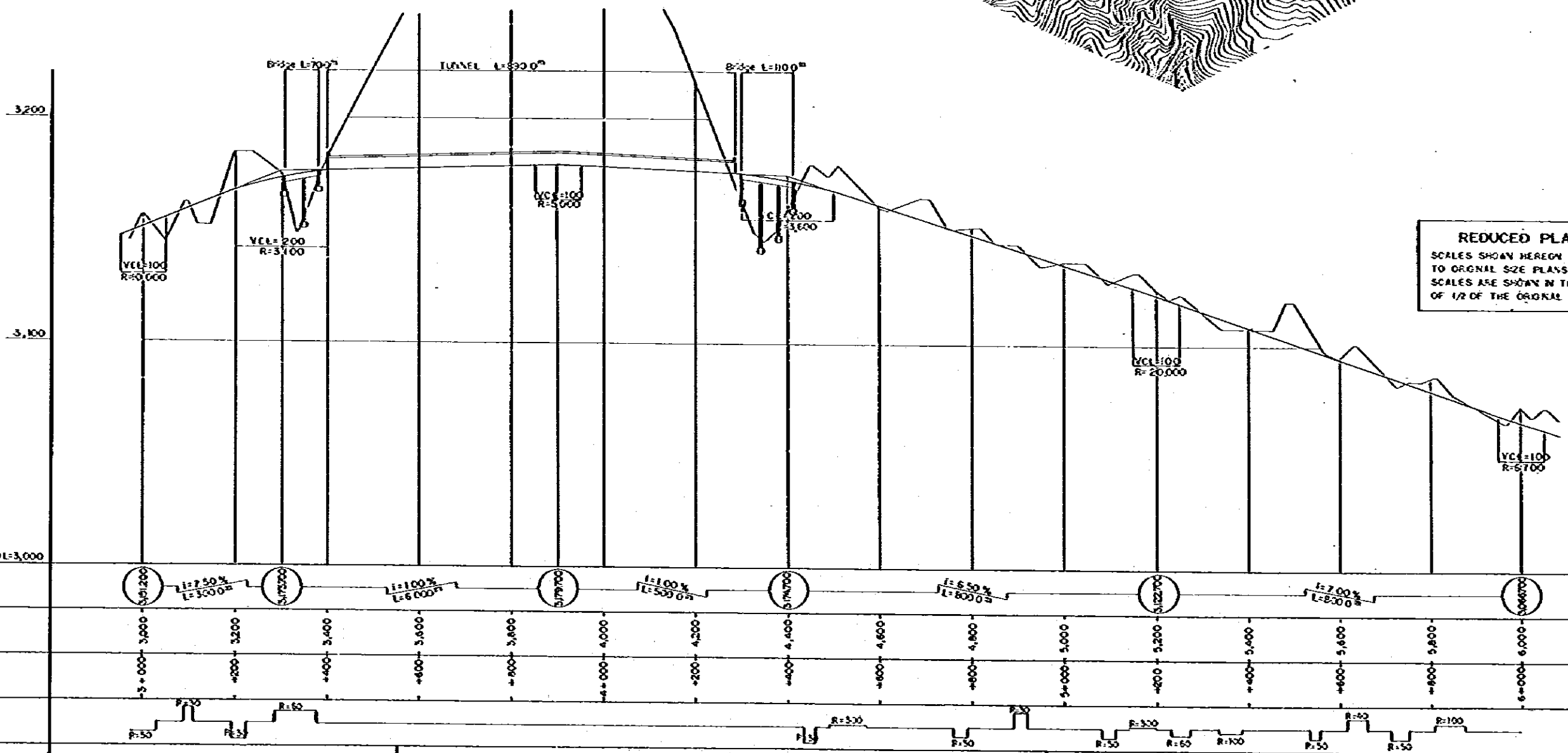
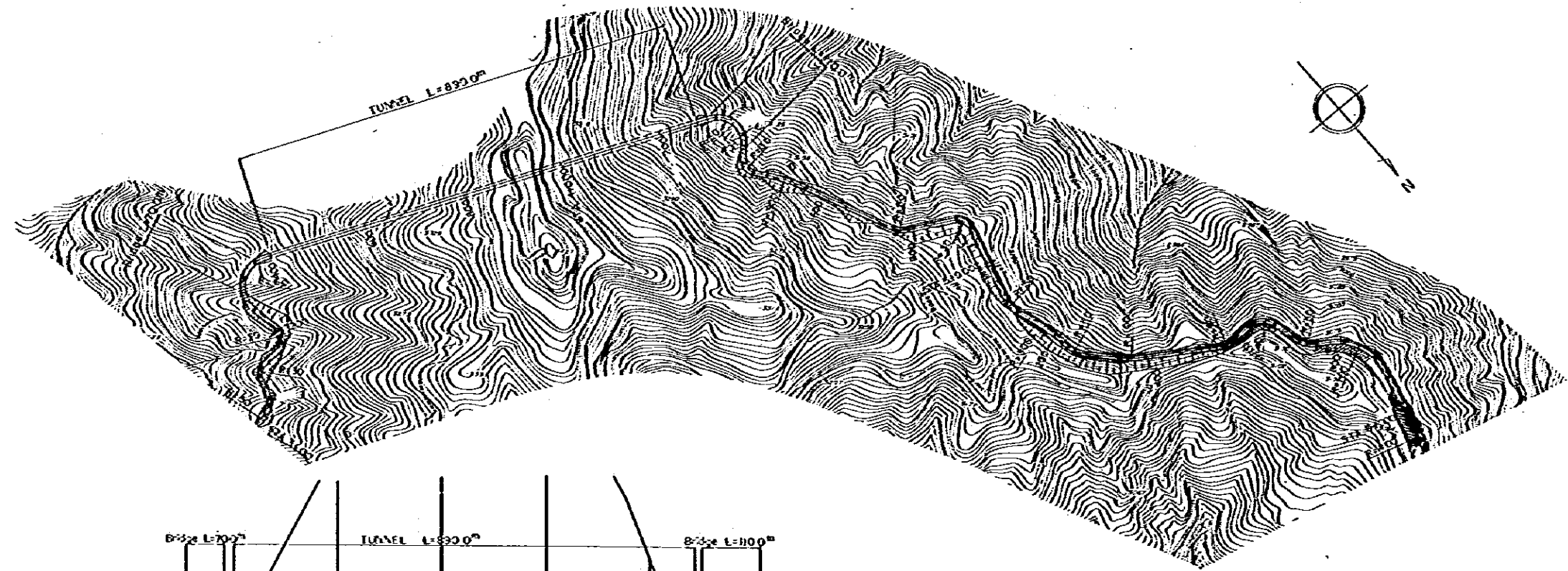
DATE MARCH 1982
 SHEET No. 79 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

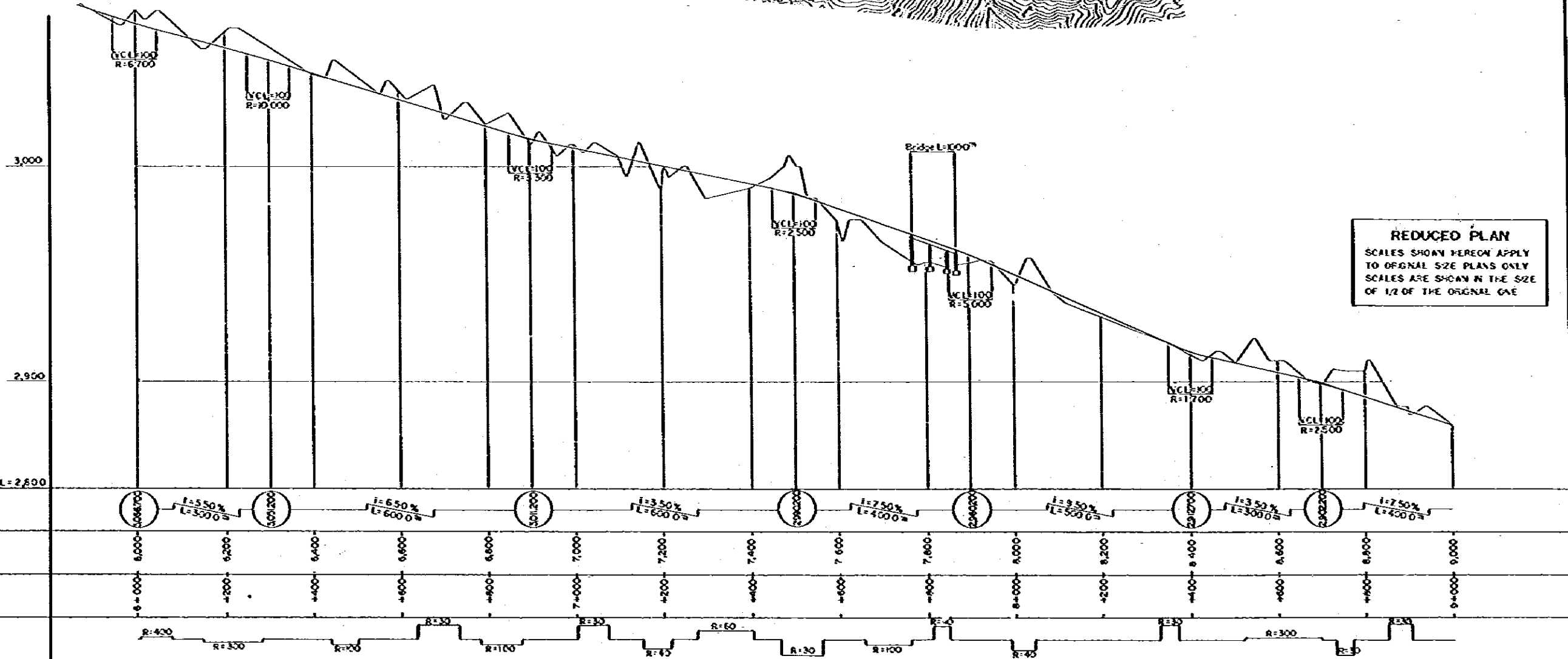


DATUM LINE	DL=2,900
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	0 200 400 600 800 1,000 1,200 1,400 1,600 1,800 2,000 2,200 2,400 2,600 2,800 3,000
STATION	STA 0+000 +200 +400 +600 +800 +1,000 +1,200 +1,400 +1,600 +1,800 +2,000 +2,200 +2,400 +2,600 +2,800 +3,000
HORIZONTAL CURVE	



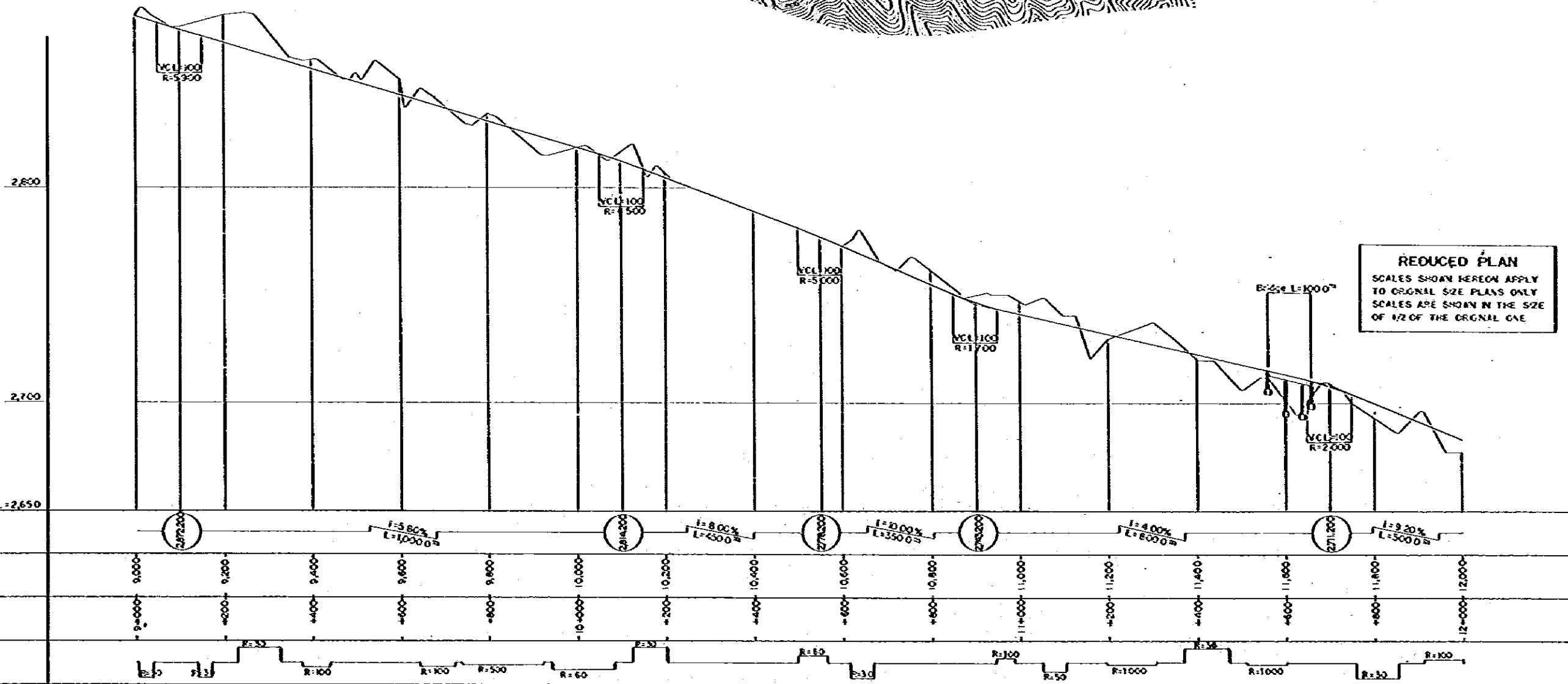
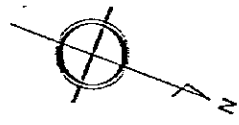
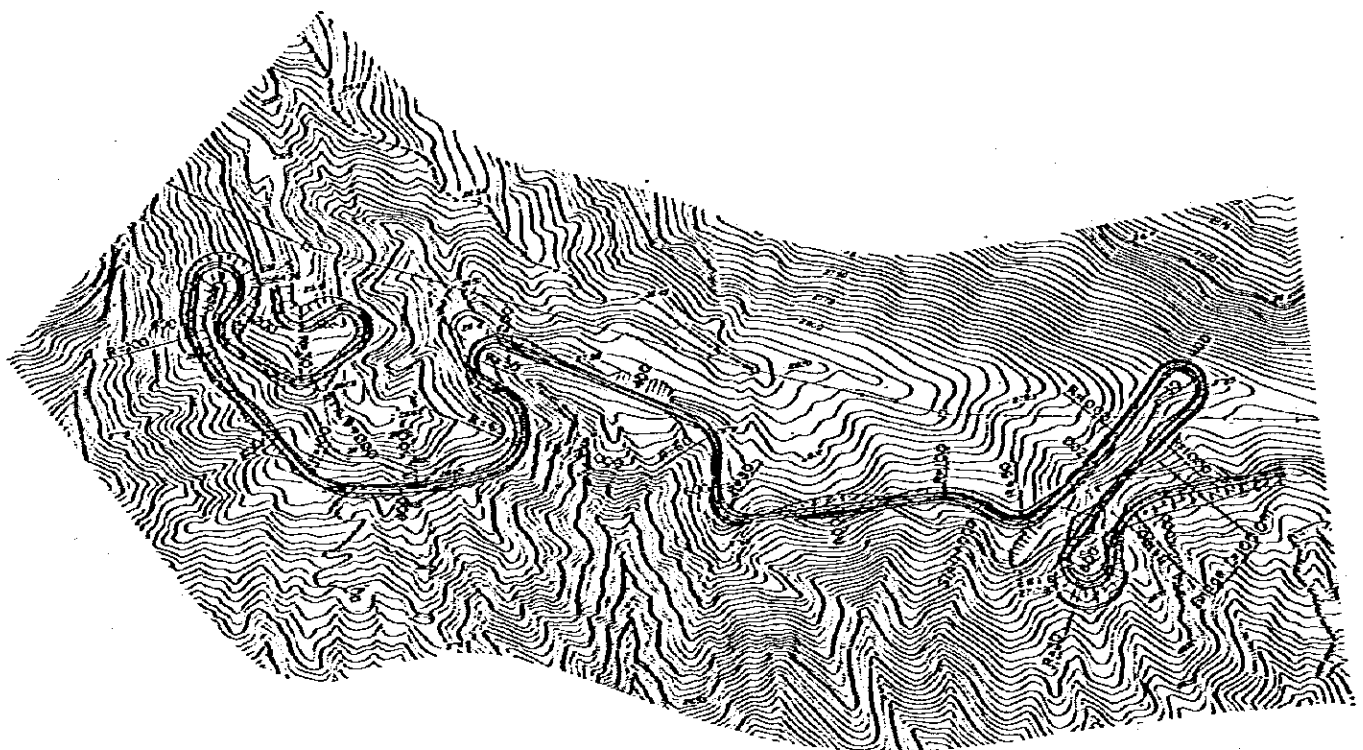
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE	DL=3,000																			
VERTICAL GRADIENT																				
ACCUMULATIVE DISTANCE	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,400	4,600	4,800	5,000	5,200	5,400	5,600	5,800	6,000				
STATION	3+000	3+200	3+400	3+600	3+800	4+000	4+200	4+400	4+600	4+800	5+000	5+200	5+400	5+600	5+800	6+000				
HORIZONTAL CURVE																				
M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT		LARGE SCALE IMPROVEMENT PLAN LA LINEA BYPASS (2) STA.3+000 - STA.6+000								SCALE H=1:5000 V=1:1000		DATE MARCH 1982 SHEET No. 81 OF 135							



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL

DATUM LINE	DL = 2,800
VERTICAL GRADIENT	$i = 5.50\%$ $L = 3,000'$ $i = 6.50\%$ $L = 600'$ $i = 3.50\%$ $L = 600'$ $i = 7.50\%$ $L = 400'$ $i = 8.50\%$ $L = 500'$ $i = 3.50\%$ $L = 3,000'$ $i = 7.50\%$ $L = 400'$
ACCUMULATIVE DISTANCE	6,000 6,200 6,400 6,600 6,800 7,000 7,200 7,400 7,600 7,800 8,000 8,200 8,400 8,600 8,800 9,000
STATION	6+000 6+200 6+400 6+600 6+800 7+000 7+200 7+400 7+600 7+800 8+000 8+200 8+400 8+600 8+800 9+000
HORIZONTAL CURVE	R=400 R=300 R=200 R=100 R=50 R=60 R=30 R=100 R=40 R=30 R=30 R=300 R=50

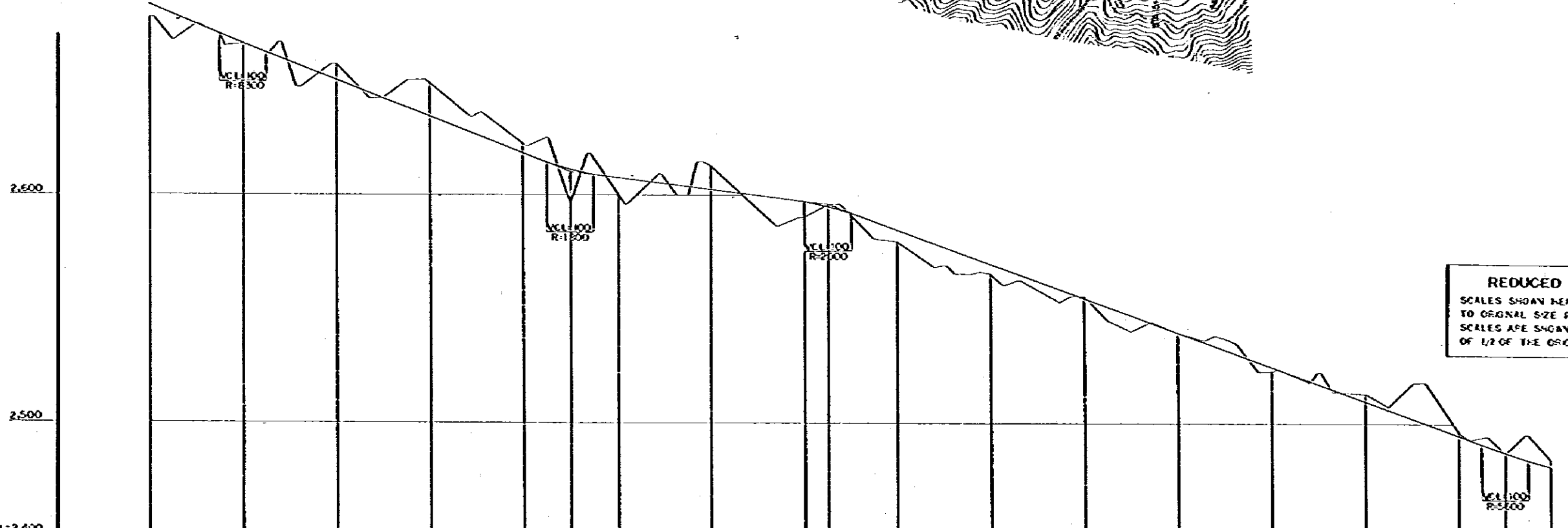
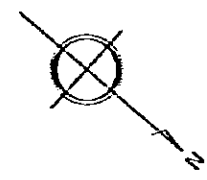
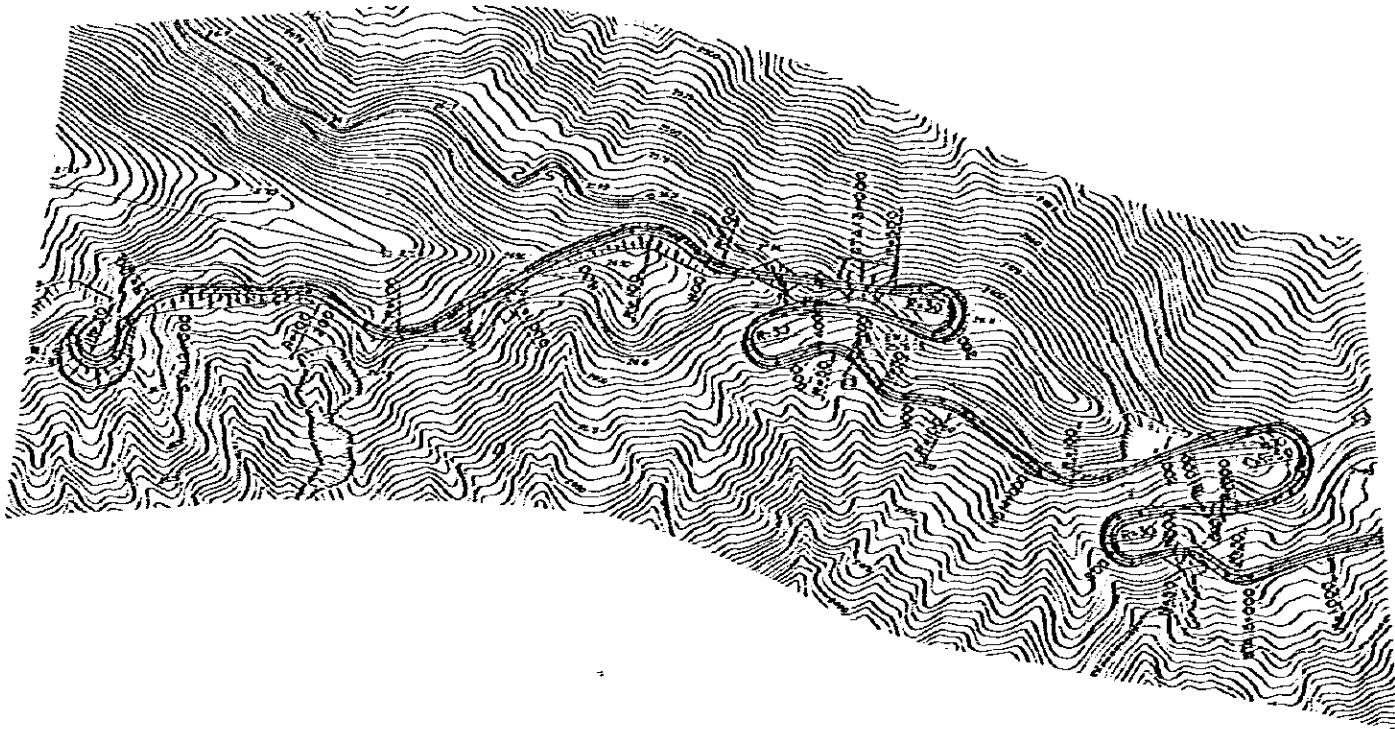


REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE OL=2,650

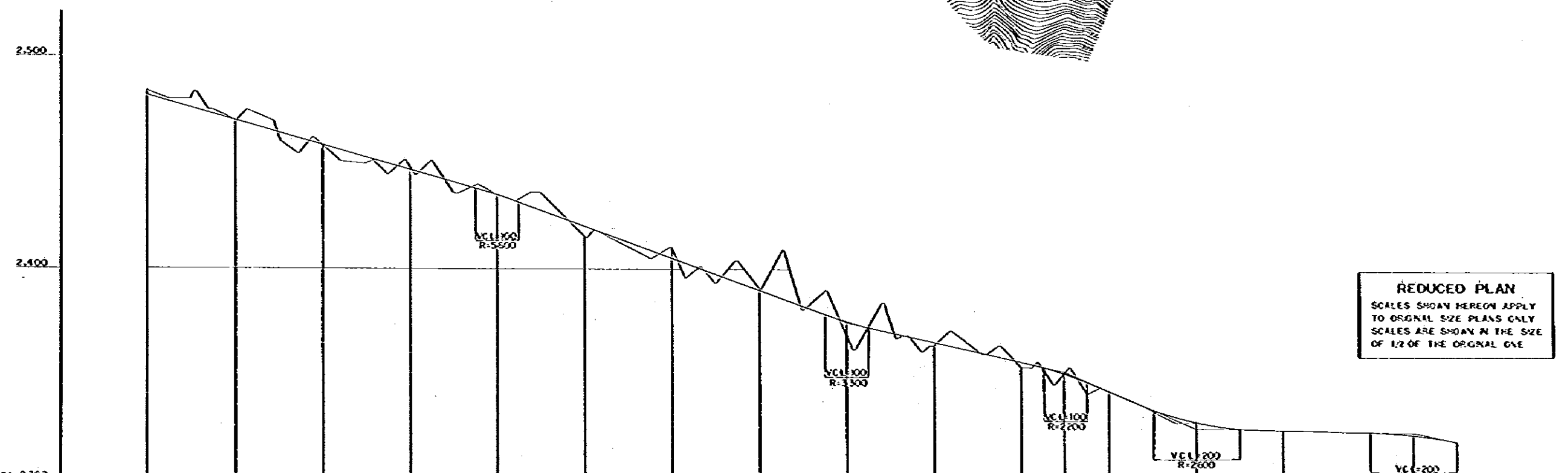
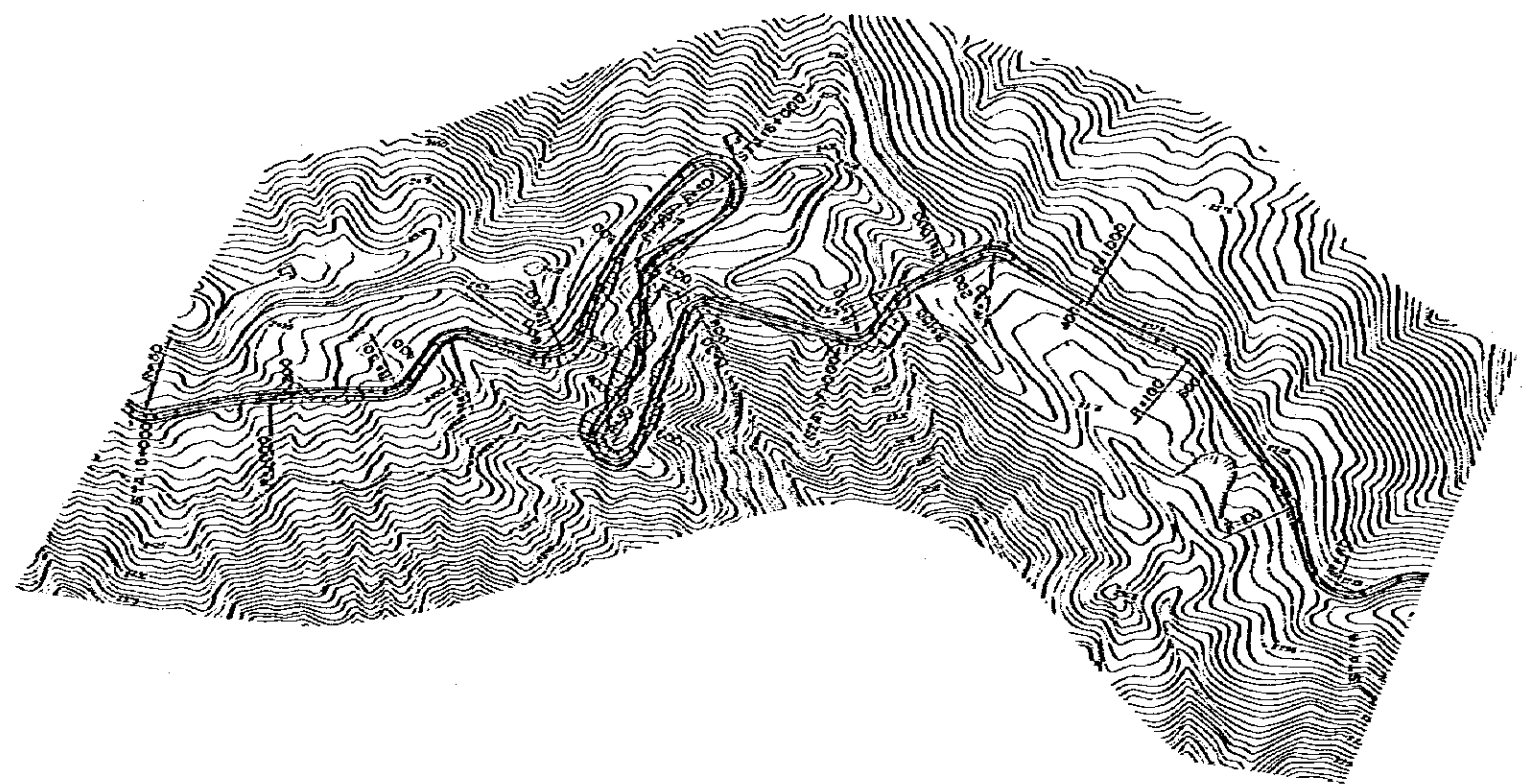
VERTICAL GRADIENT																
ACCUMULATIVE DISTANCE	0+000	0+200	0+400	0+600	0+800	10+000	10+200	10+400	10+600	10+800	11+000	11+200	11+400	11+600	11+800	12+000
STATION	9+000	9+200	9+400	9+600	9+800	10+000	10+200	10+400	10+600	10+800	11+000	11+200	11+400	11+600	11+800	12+000
HORIZONTAL CURVE																

M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT	LARGE SCALE IMPROVEMENT PLAN LA LINEA BYPASS (4) STA 9+000 - STA 12+000			SCALE H = 1:5000 V = 1:1000	DATE	MARCH 1982
				SHEET No.		83 OF 135	



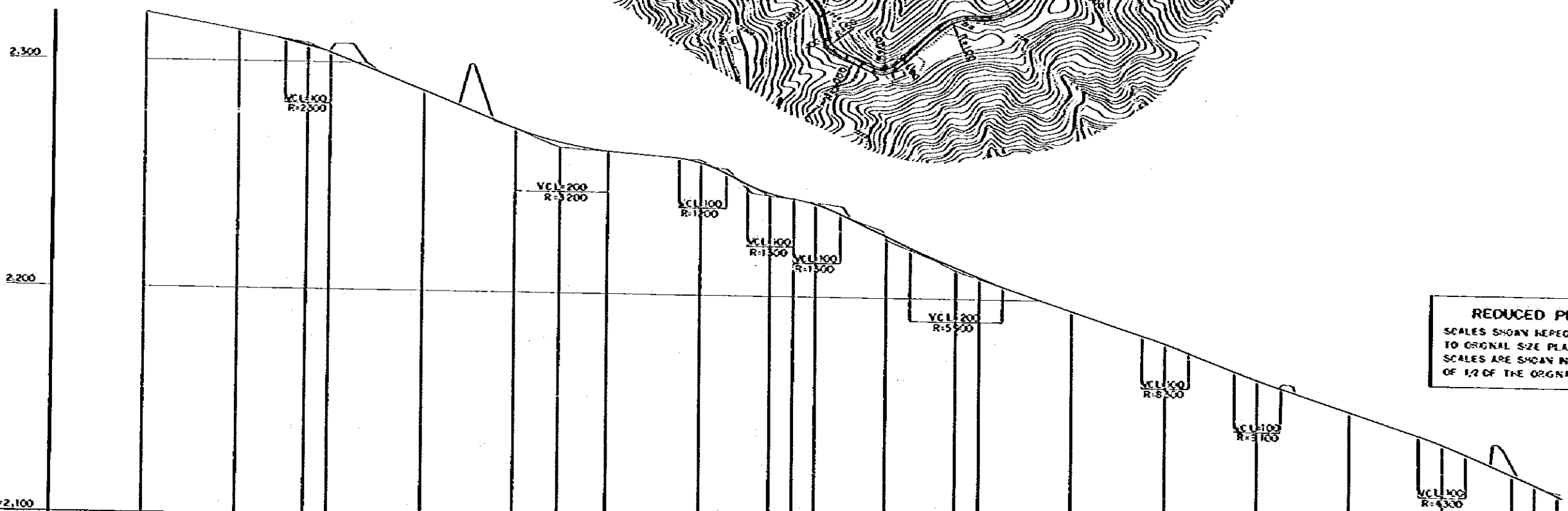
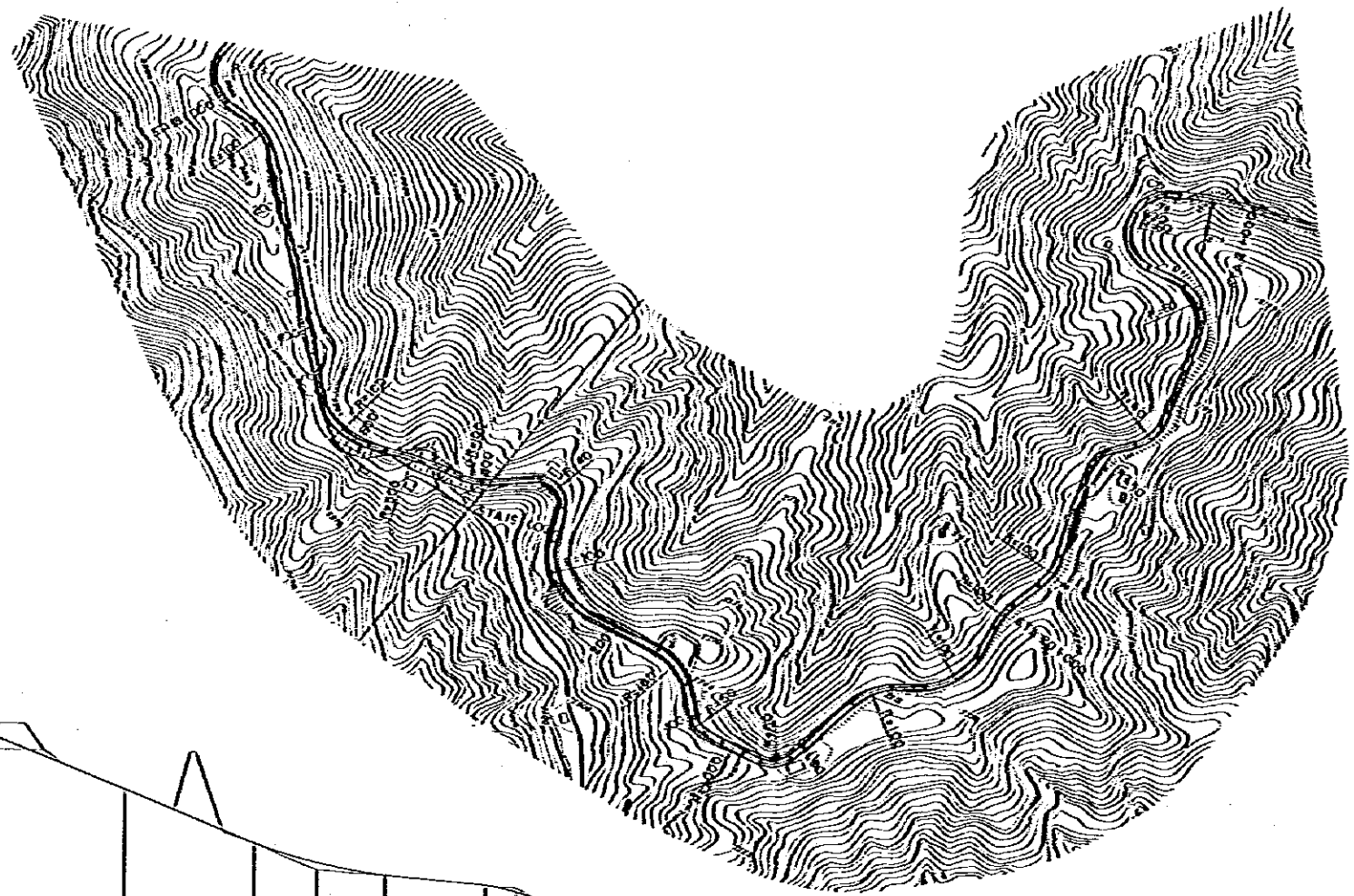
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE

DATUM LINE	DL=2,400
VERTICAL GRADIENT	$i=9.20\%$ $L=5000'$
ACCUMULATIVE DISTANCE	$12+000$, $12+200$, $12+400$, $12+600$, $12+800$, $13+000$, $13+200$, $13+400$, $13+600$, $13+800$, $14+000$, $14+200$, $14+400$, $14+600$, $14+800$, $15+000$
STATION	$12+000$, $12+200$, $12+400$, $12+600$, $12+800$, $13+000$, $13+200$, $13+400$, $13+600$, $13+800$, $14+000$, $14+200$, $14+400$, $14+600$, $14+800$, $15+000$
HORIZONTAL CURVE	$R=100$, $R=1000$, $R=100$, $R=100$, $R=500$, $R=300$, $R=50$, $R=50$, $R=100$, $R=1000$, $R=50$, $R=300$, $R=50$, $R=50$



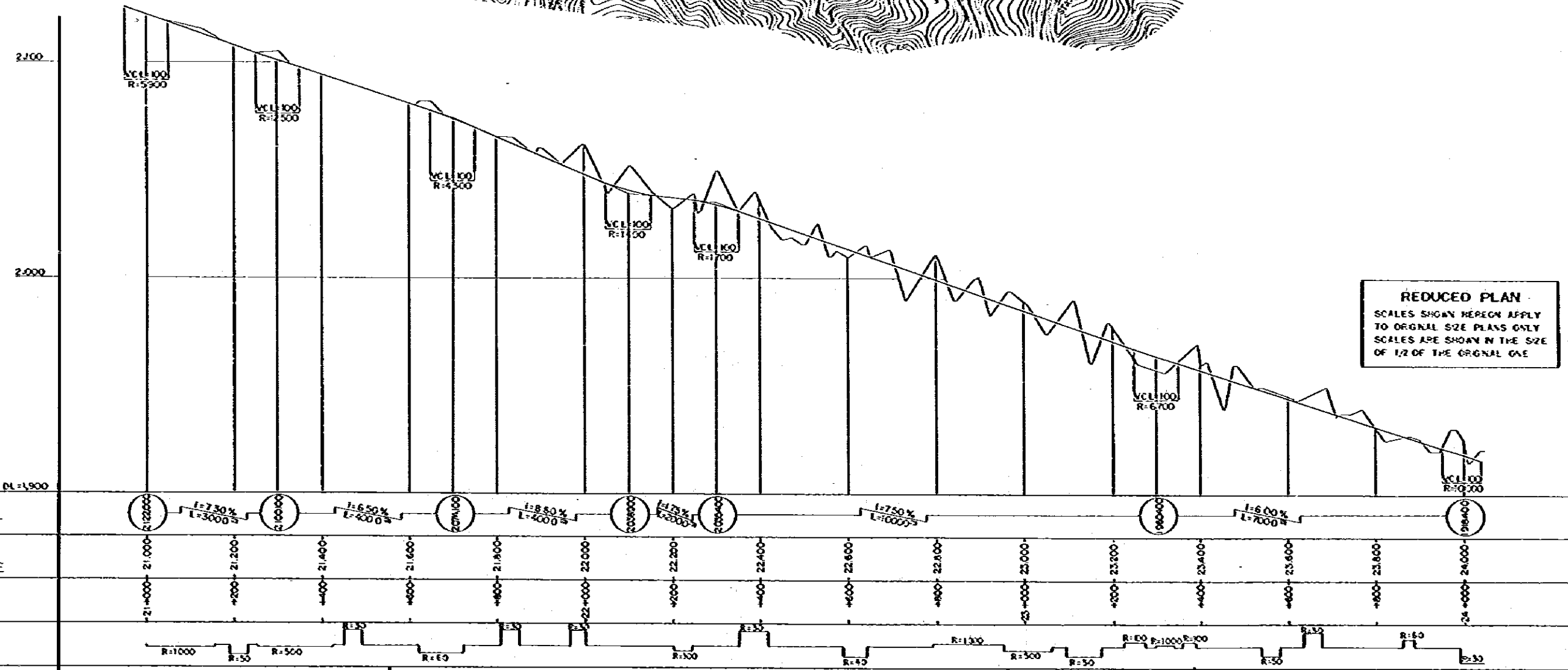
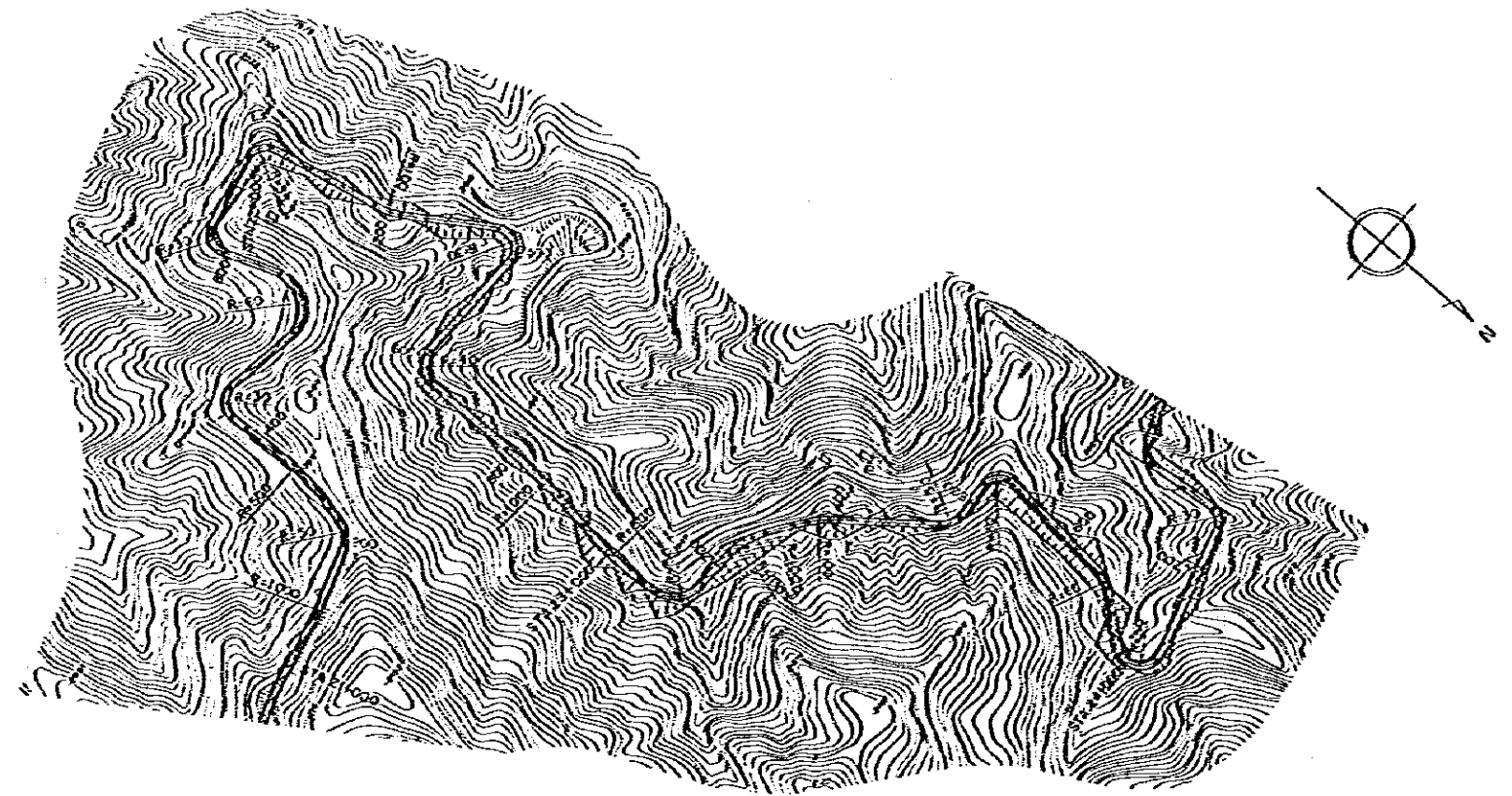
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE.

DATUM LINE	DL=2,300
VERTICAL GRADIENT	$I=5.70\%$ $L=3,000'$
ACCUMULATIVE DISTANCE	15,000, 15,200, 15,400, 15,600, 15,800, 16,000, 16,200, 16,400, 16,600, 16,800, 17,000, 17,200, 17,400, 17,600, 17,800, 18,000
STATION	15+000, 15+200, 15+400, 15+600, 15+800, 16+000, 16+200, 16+400, 16+600, 16+800, 17+000, 17+200, 17+400, 17+600, 17+800, 18+000
HORIZONTAL CURVE	$R=50$, $R=1,000$, $R=50$, $R=100$, $R=500$, $R=40$, $R=50$, $R=30$, $R=50$, $R=300$, $R=50$, $R=1,000$, $R=300$, $R=100$, $R=60$



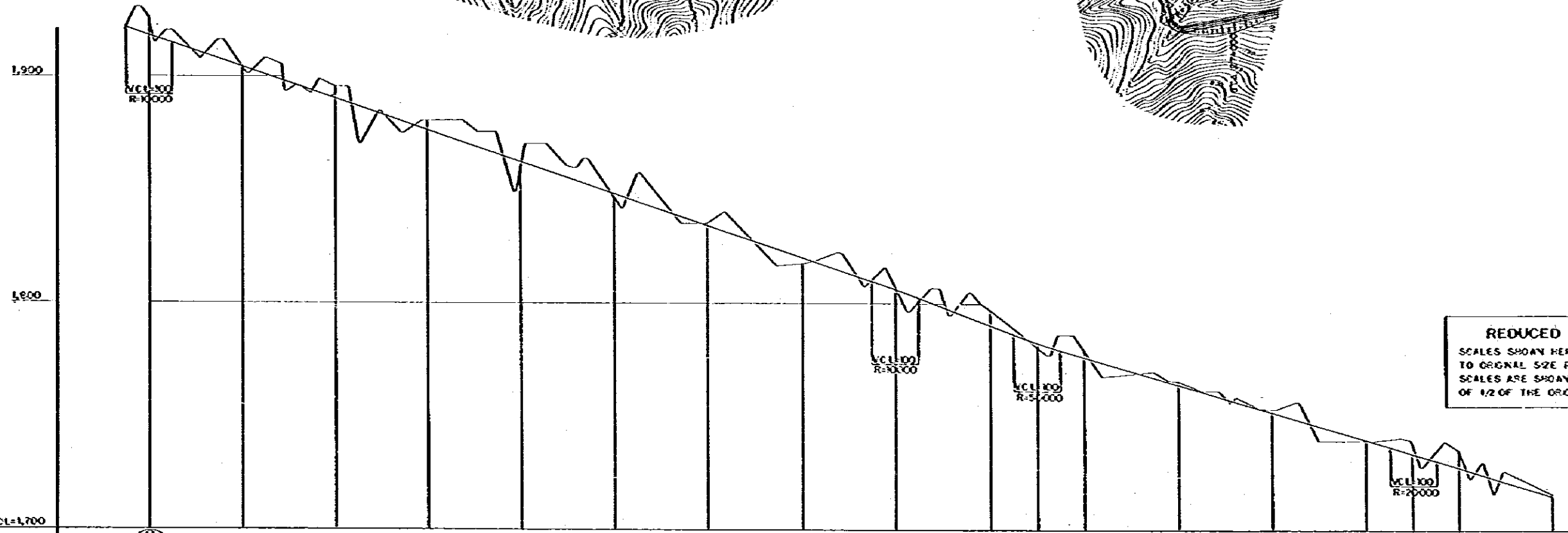
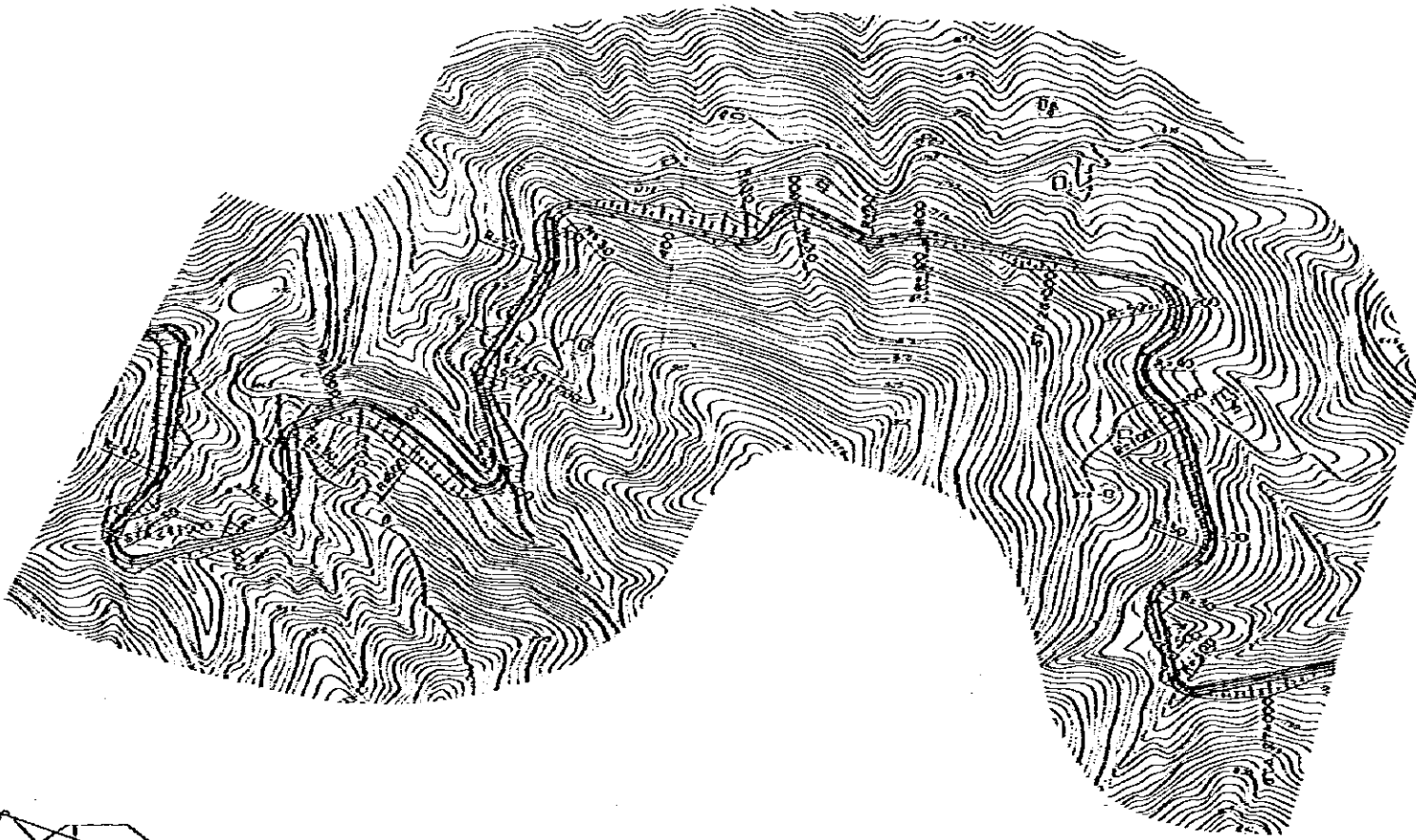
REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY. SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE.

DATUM LINE	DL=2,100
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	
STATION	
HORIZONTAL CURVE	



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL

M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT	LARGE SCALE IMPROVEMENT PLAN LA LINEA BYPASS (8) STA. 21+000 - STA. 24+000		SCALE H=1:5000 V=1:1000	DATE	MARCH 1982
					SHEET No.	87 OF 135



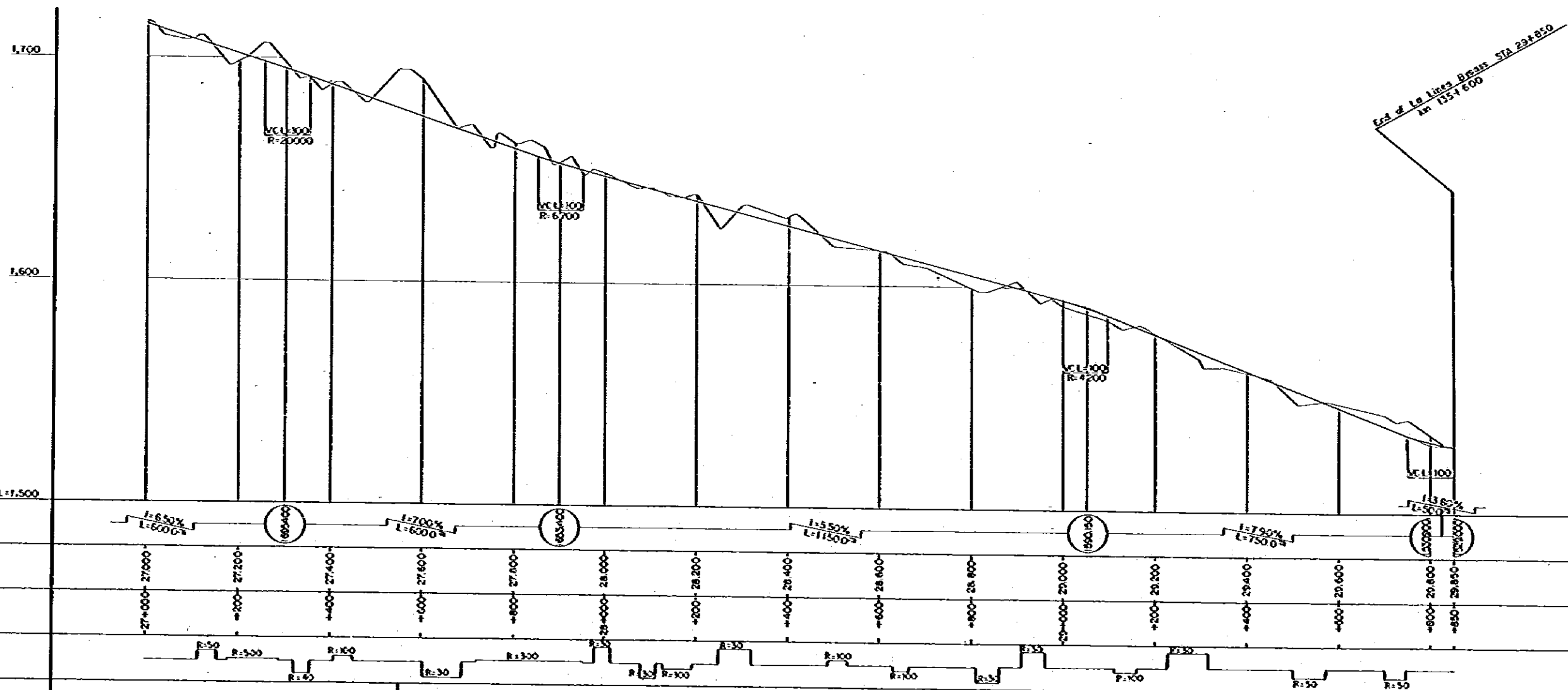
REDUCED PLAN
 SCALES SHOWN HEREON APPLY
 TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE
 OF 1/2 OF THE ORIGINAL ONE

DATUM LINE	CL=1,700
VERTICAL GRADIENT	
ACCUMULATIVE DISTANCE	
STATION	
HORIZONTAL CURVE	

M O P T	BOGOTA — BUENAVENTURA ROAD PROJECT	LARGE SCALE IMPROVEMENT PLAN LA LINEA BYPASS (9) STA 24+000 — STA 27+000	SCALE H = 1:5000 V = 1:1000	DATE MARCH 1982
				SHEET No. 88 OF 135



REDUCED PLAN
 SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
 SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE



DATUM LINE $DL=1,500$

VERTICAL GRADIENT

ACCUMULATIVE DISTANCE

STATION

HORIZONTAL CURVE

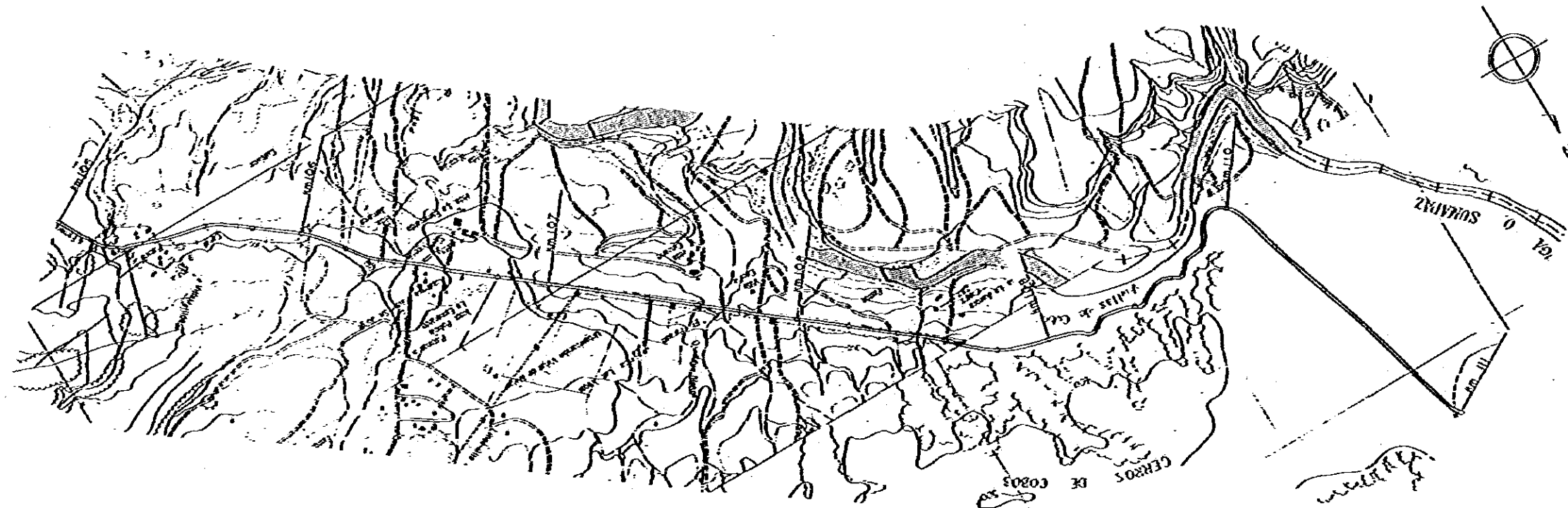
M O P T
 BOGOTÁ — BUENAVENTURA
 ROAD PROJECT

LARGE SCALE IMPROVEMENT PLAN
 LA LINEA BYPASS (10)
 STA 27+000 - STA 29+000

SCALE H = 1:5000
 V = 1:1000

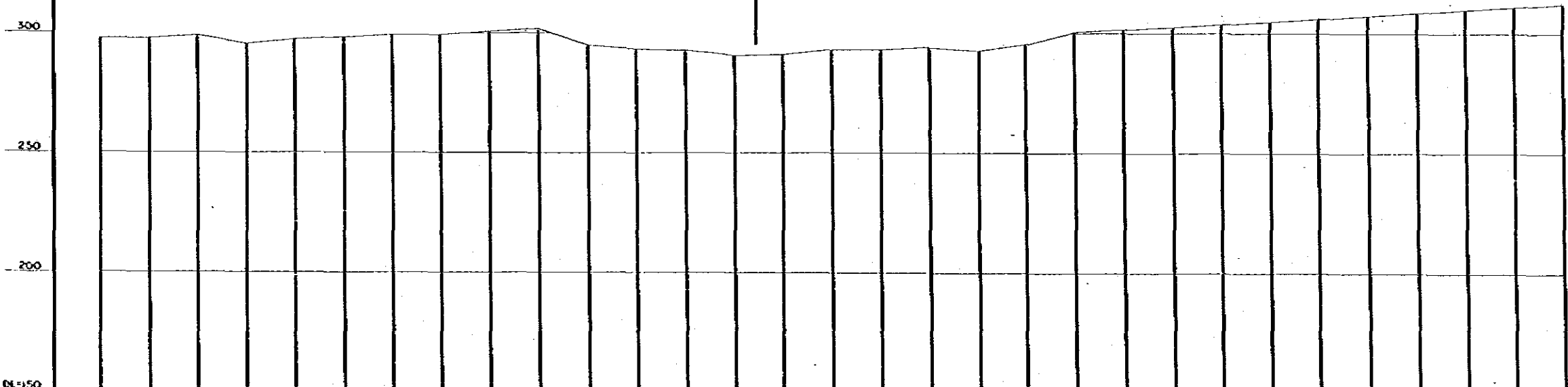
DATE MARCH 1982

SHEET No. 89 OF 135



Bridge Asm Blases L=800
at 107+700

REDUCED PLAN
SCALES SHOWN HEREON APPLY TO ORIGINAL SIZE PLANS ONLY
SCALES ARE SHOWN IN THE SIZE OF 1/2 OF THE ORIGINAL ONE



DATUM LINE DL+150																						
VERTICAL GRADIENT																						
ACCUMULATIVE DISTANCE	0	200	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4200
IN - SITU KM POST	105	107	109	111	113	115	117	119	121	123	125	127	129	131	133	135	137	139	141	143	145	147
HORIZONTAL CURVE																						
M O P T	BOGOTA - BUENAVENTURA ROAD PROJECT						UNIMPROVED SECTION (Melgar-Espinal)						SCALE PLAN 1:10000 PROFLE H=1:10000 V=1:1000						DATE MARCH 1982 SHEET No. 91 OF 135			