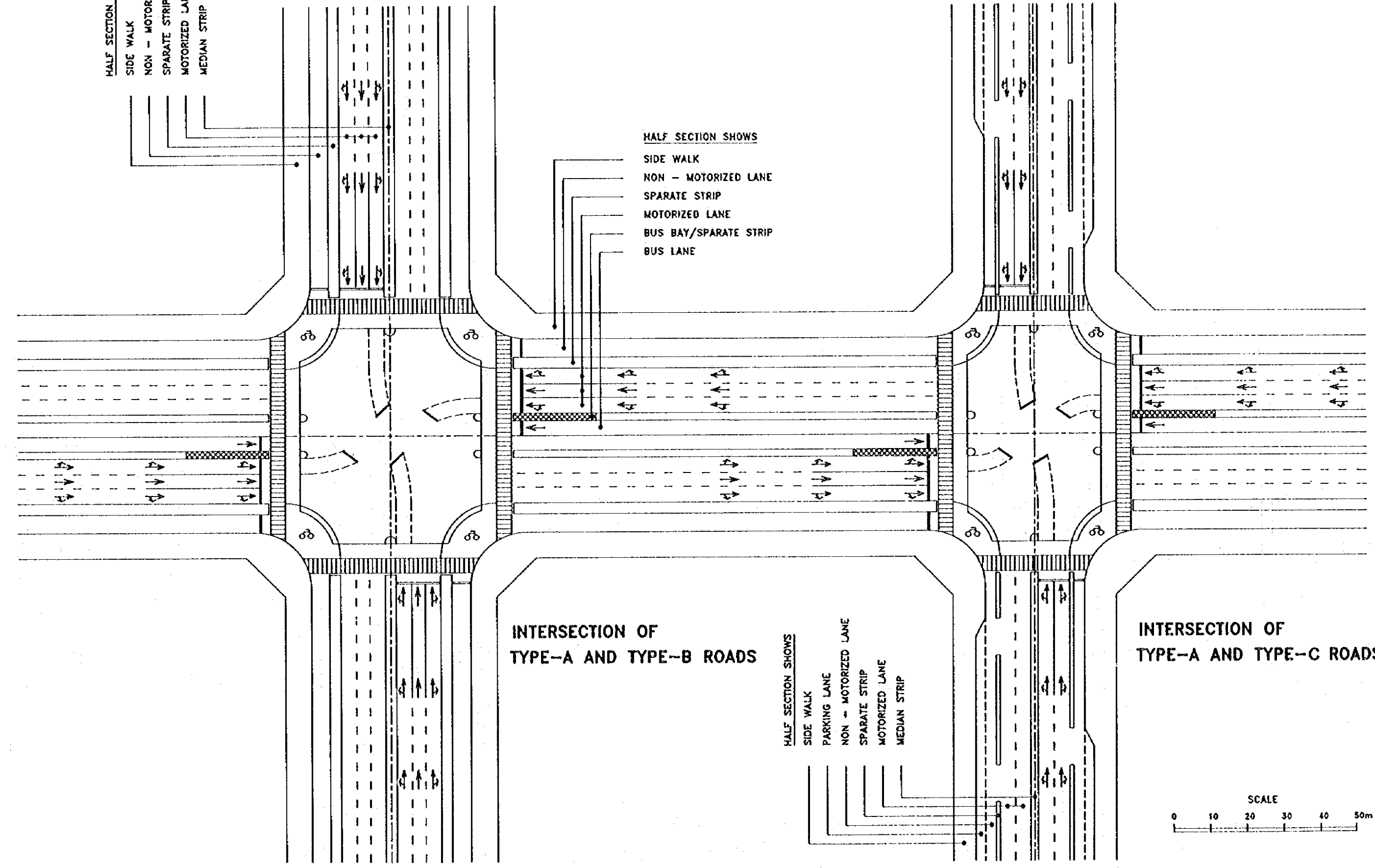


HALF SECTION SHOWS
 SIDE WALK
 NON - MOTORIZED LANE
 SPARATE STRIP
 MOTORIZED LANE
 MEDIAN STRIP

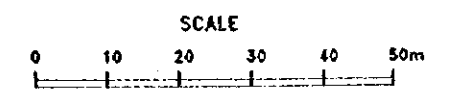
HALF SECTION SHOWS
 SIDE WALK
 NON - MOTORIZED LANE
 SPARATE STRIP
 MOTORIZED LANE
 BUS BAY/SPARATE STRIP
 BUS LANE

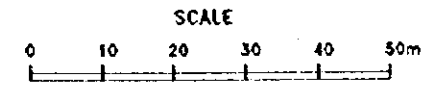
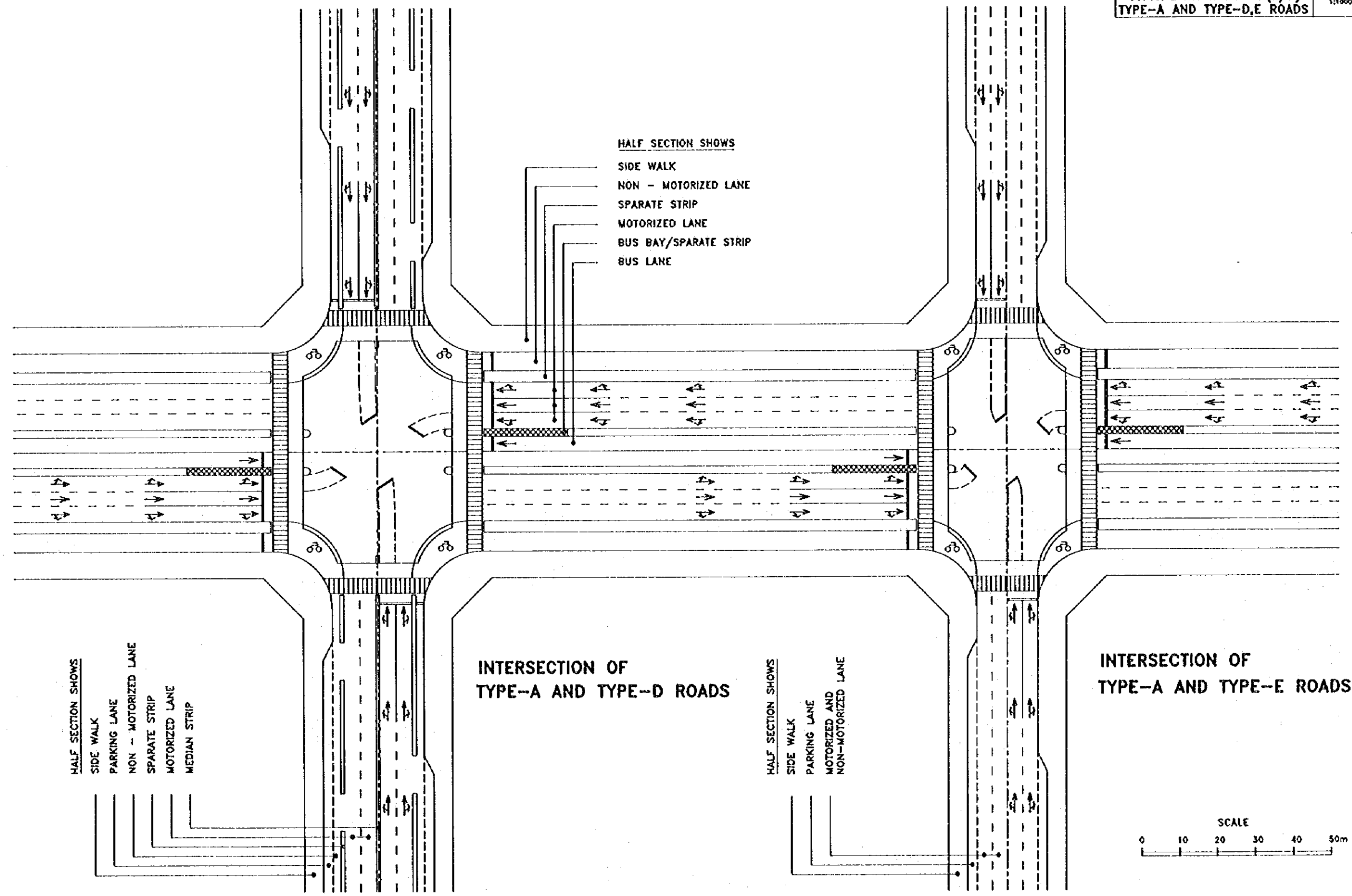
HALF SECTION SHOWS
 SIDE WALK
 PARKING LANE
 NON - MOTORIZED LANE
 SPARATE STRIP
 MOTORIZED LANE
 MEDIAN STRIP



INTERSECTION OF
TYPE-A AND TYPE-B ROADS

INTERSECTION OF
TYPE-A AND TYPE-C ROADS





SOCIALIST REPUBLIC OF VIET NAM
THE FEASIBILITY OF NEW CBD FOR HANOI CITY

TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
Quantity of Aterial Road And Collector Road	AS SHOWN	65

Work Items	Unit	Arterial Road No.1					Arterial Road No.2				
		Arterial Road		First Stage	Second Stage	Third Stage	Arterial Road		First Stage	Second Stage	Third Stage
		Quantity	Length(m)				Quantity	Length(m)			
Clearing & Grubbing	SQM/M	70.50	1,800	1,800	0	0	61.50	2,246.34	1,243.82	1,002.52	0
Embankment	CM/M	69.00	1,800	1,800	0	0	60.00	2,246.34	1,243.82	1,002.52	0
Subgrade Preparation	SQM/M	76.50	1,800	1,800	0	0	58.50	2,246.34	1,243.82	1,002.52	0
Subbase Course	CM/M	16.59	1,800	1,800	0	0	13.88	2,246.34	1,243.82	1,002.52	0
Base Couse	CM/M	15.03	1,800	1,800	0	0	10.35	2,246.34	1,243.82	1,002.52	0
Prim Coat	TONE/M	0.056	1,800	1,800	0	0	0.046	2,246.34	1,243.82	1,002.52	0
Tack Coat	TONE/M	0.019	1,800	1,800	0	0	0.015	2,246.34	1,243.82	1,002.52	0
Asphalt Concrete	TONE/M	11.70	1,800	1,800	0	0	9.52	2,246.34	1,243.82	1,002.52	0
Center Median	CM/M	2.00	1,800	1,800	0	0	1.50	2,246.34	1,243.82	1,002.52	0
Separate Strip	CM/M	3.00	1,800	1,800	0	0	3.00	2,246.34	1,243.82	1,002.52	0
Curb & Gutter	LM/M	10.00	1,800	1,800	0	0	10.00	2,246.34	1,243.82	1,002.52	0
Sidewalk	SQM/M	14.00	1,800	1,800	0	0	14.00	2,246.34	1,243.82	1,002.52	0
Drainage	LM/M	2.00	1,800	1,800	0	0	2.00	2,246.34	1,243.82	1,002.52	0
Catch Basin	EACH	152					166				
Road Safety Devices	LM/M	1.00	1,800	1,800	0	0	1.00	2,246.34	1,243.82	1,002.52	0
Plantation	SQM/M	4.00	1,800	1,800	0	0	5.00	2,246.34	1,243.82	1,002.52	0
Boundary Block	LM/M	2.00	1,800	1,800	0	0	2.00	2,246.34	1,243.82	1,002.52	0

Work Items	Unit	Collector Road No.1					Collector Road No.2					Collector Road No.3				
		Collector Road		First Stage	Second Stage	Third Stage	Collector Road		First Stage	Second Stage	Third Stage	Collector Road		First Stage	Second Stage	Third Stage
		Quantity	Length(m)				Quantity	Length(m)				Quantity	Length(m)			
Clearing & Grubbing	SQM/M	48.00	9,656.45	5,225.71	1,233.95	3,196.79	43.00	6,370.85	2,285.24	2,858.82	1,541.79	35.00	12,329.92	3,767.32	4,726.52	3,836.08
Embankment	CM/M	48.60	9,656.45	5,225.71	1,233.95	3,196.79	41.50	6,370.85	2,285.24	2,858.82	1,541.79	33.50	12,329.92	3,767.32	4,726.52	3,836.08
Subgrade Preparation	SQM/M	45.00	9,656.45	5,225.71	1,233.95	3,196.79	37.00	6,370.85	2,285.24	2,858.82	1,541.79	33.00	12,329.92	3,767.32	4,726.52	3,836.08
Subbase Course	CM/M	10.44	9,656.45	5,225.71	1,233.95	3,196.79	9.54	6,370.85	2,285.24	2,858.82	1,541.79	7.14	12,329.92	3,767.32	4,726.52	3,836.08
Base Couse	CM/M	8.80	9,656.45	5,225.71	1,233.95	3,196.79	4.05	6,370.85	2,285.24	2,858.82	1,541.79	5.65	12,329.92	3,767.32	4,726.52	3,836.08
Prim Coat	TONE/M	0.035	9,656.45	5,225.71	1,233.95	3,196.79	0.033	6,370.85	2,285.24	2,858.82	1,541.79	0.03	12,329.92	3,767.32	4,726.52	3,836.08
Tack Coat	TONE/M	0.012	9,656.45	5,225.71	1,233.95	3,196.79	0.011	6,370.85	2,285.24	2,858.82	1,541.79	0.01	12,329.92	3,767.32	4,726.52	3,836.08
Asphalt Concrete	TONE/M	5.52	9,656.45	5,225.71	1,233.95	3,196.79	5.28	6,370.85	2,285.24	2,858.82	1,541.79	3.84	12,329.92	3,767.32	4,726.52	3,836.08
Center Median	CM/M	1.00	9,656.45	5,225.71	1,233.95	3,196.79	0.50	6,370.85	2,285.24	2,858.82	1,541.79	0	12,329.92	3,767.32	4,726.52	3,836.08
Separate Strip	CM/M	1.00	9,656.45	5,225.71	1,233.95	3,196.79	1.00	6,370.85	2,285.24	2,858.82	1,541.79	0	12,329.92	3,767.32	4,726.52	3,836.08
Curb & Gutter	LM/M	8.00	9,656.45	5,225.71	1,233.95	3,196.79	8.00	6,370.85	2,285.24	2,858.82	1,541.79	2.00	12,329.92	3,767.32	4,726.52	3,836.08
Sidewalk	SQM/M	12.00	9,656.45	5,225.71	1,233.95	3,196.79	10.00	6,370.85	2,285.24	2,858.82	1,541.79	10.00	12,329.92	3,767.32	4,726.52	3,836.08
Drainage	LM/M	2.00	9,656.45	5,225.71	1,233.95	3,196.79	2.00	6,370.85	2,285.24	2,858.82	1,541.79	2.00	12,329.92	3,767.32	4,726.52	3,836.08
Catch Basin	EACH	380					258					484				
Road Safety Devices	LM/M	0.50	9,656.45	5,225.71	1,233.95	3,196.79	0.50	6,370.85	2,285.24	2,858.82	1,541.79	0.50	12,329.92	3,767.32	4,726.52	3,836.08
Plantation	SQM/M	3.00	9,656.45	5,225.71	1,233.95	3,196.79	3.00	6,370.85	2,285.24	2,858.82	1,541.79	2.00	12,329.92	3,767.32	4,726.52	3,836.08
Boundary Block	LM/M	2.00	9,656.45	5,225.71	1,233.95	3,196.79	2.00	6,370.85	2,285.24	2,858.82	1,541.79	2.00	12,329.92	3,767.32	4,726.52	3,836.08

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
Quantity of Feeder Road	AS SHOWN	66

Feeder Road No.1

Feeder Road No.2

Work Items	Unit	Feeder Road			Feeder Road			First Stage	Second Stage	Third Stage	
		Quantity	Length(m)	First Stage	Second Stage	Third Stage	Quantity				Length(m)
Clearing & Grubbing	SQM/M		10.816	1.480	5.828	3.510	16.00	11.975	435	6.970	4.570
Embankment	CM/M		10.816	1.480	5.828	3.510	14.50	11.975	435	6.970	4.570
Subgrade Preparation	SQM/M		10.816	1.480	5.828	3.510	13.00	11.975	435	6.970	4.570
Subbase Course	CM/M		10.816	1.480	5.828	3.510	1.98	11.975	435	6.970	4.570
Base Course	CM/M		10.816	1.480	5.828	3.510	1.29	11.975	435	6.970	4.570
Prim Coat	TONE/M		10.816	1.480	5.828	3.510	0.009	11.975	435	6.970	4.570
Tack Coat	TONE/M		10.816	1.480	5.828	3.510	0.003	11.975	435	6.970	4.570
Asphalt Concrete	TONE/M		10.816	1.480	5.828	3.510	1.01	11.975	435	6.970	4.570
Center Median	CM/M		10.816	1.480	5.828	3.510	0	11.975	435	6.970	4.570
Separate Strip	CM/M		10.816	1.480	5.828	3.510	0	11.975	435	6.970	4.570
Curb & Gutter	LM/M		10.816	1.480	5.828	3.510	2.00	11.975	435	6.970	4.570
Sidewalk	SQM/M		10.816	1.480	5.828	3.510	5.00	11.975	435	6.970	4.570
Drainage	LM/M		10.816	1.480	5.828	3.510	2.00	11.975	435	6.970	4.570
Catch Basin	EACH						320				
Road Safety Devices	LM/M		10.816	1.480	5.828	3.510	0.25	11.975	435	6.970	4.570
Plantation	SQM/M		10.816	1.480	5.828	3.510	2.00	11.975	435	6.970	4.570
Boundary Block	LM/M		10.816	1.480	5.828	3.510	2.00	11.975	435	6.970	4.570

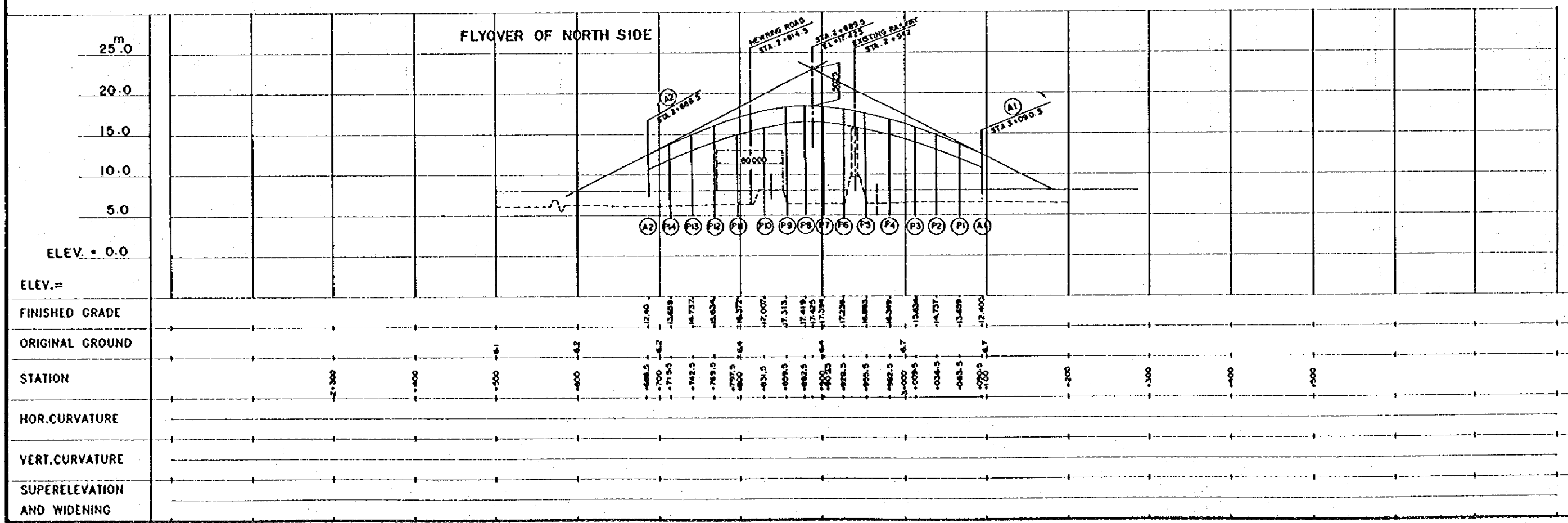
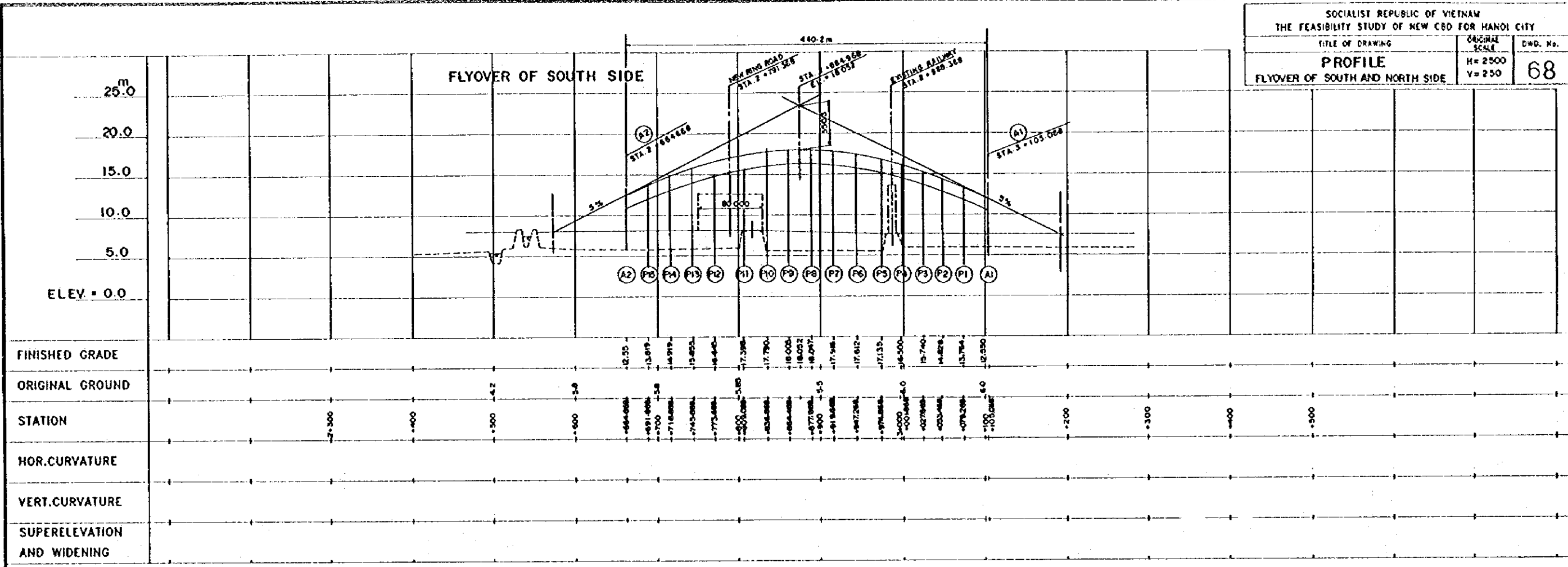
SOCIALIST REPUBLIC OF VIET NAM
THE FEASIBILITY OF NEW CBD FOR HANOI CITY

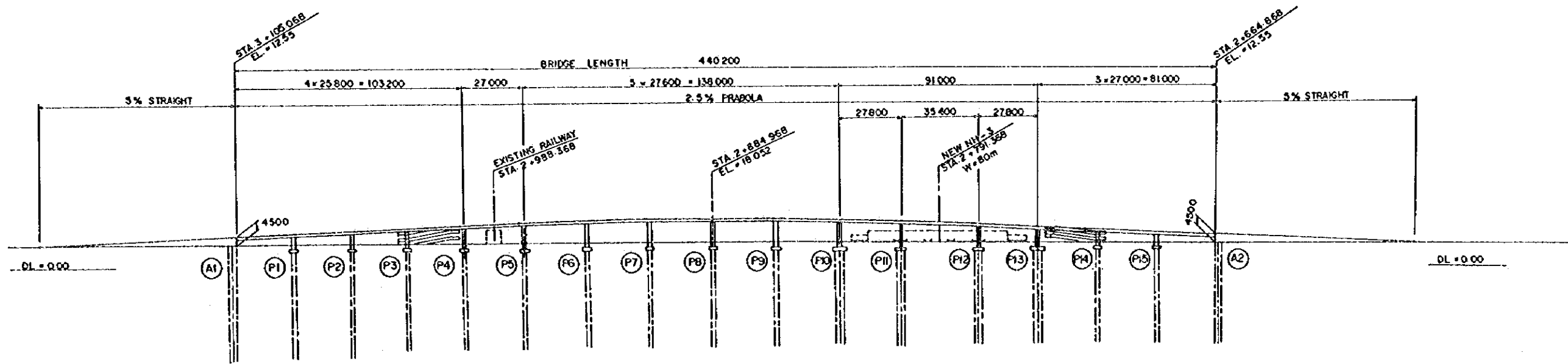
TITLE OF DRAWING	ORIGINAL SCALE	DWC. No
Quantity of Walkway	AS SHOWN	67

Work Items	Unit	WALKWAY W = 30m				
		Quantity	Length (m)	First Sta.	Second Sta.	Third Sta.
Clearing & Grubbing	SQM/M	31.00	408.11	0	0	408.11
Embankment	CM/M	32.50	408.11	0	0	408.11
Subgrade Preparation	SQM/M	31.00	408.11	0	0	408.11
Subbase Course	CM/M	0	408.11	0	0	408.11
Base Couse	CM/M	0	408.11	0	0	408.11
Prim Coat	TONE/M	0	408.11	0	0	408.11
Tack Coat	TONE/M	0	408.11	0	0	408.11
Asphalt Concrete	TONE/M	0	408.11	0	0	408.11
Center Median	CM/M	0	408.11	0	0	408.11
Separate Strip	CM/M	0	408.11	0	0	408.11
Curb & Gutter	LM/M	0	408.11	0	0	408.11
Sidewalk	SQM/M	30.00	408.11	0	0	408.11
Drainage	LM/M	2.00	408.11	0	0	408.11
Catch Basin	EACH	14				
Road Safety Devices	LM/M	0.25	408.11	0	0	408.11
Plantation	SQM/M	4.00	408.11	0	0	408.11
Boundary Block	LM/M	2.00	408.11	0	0	408.11

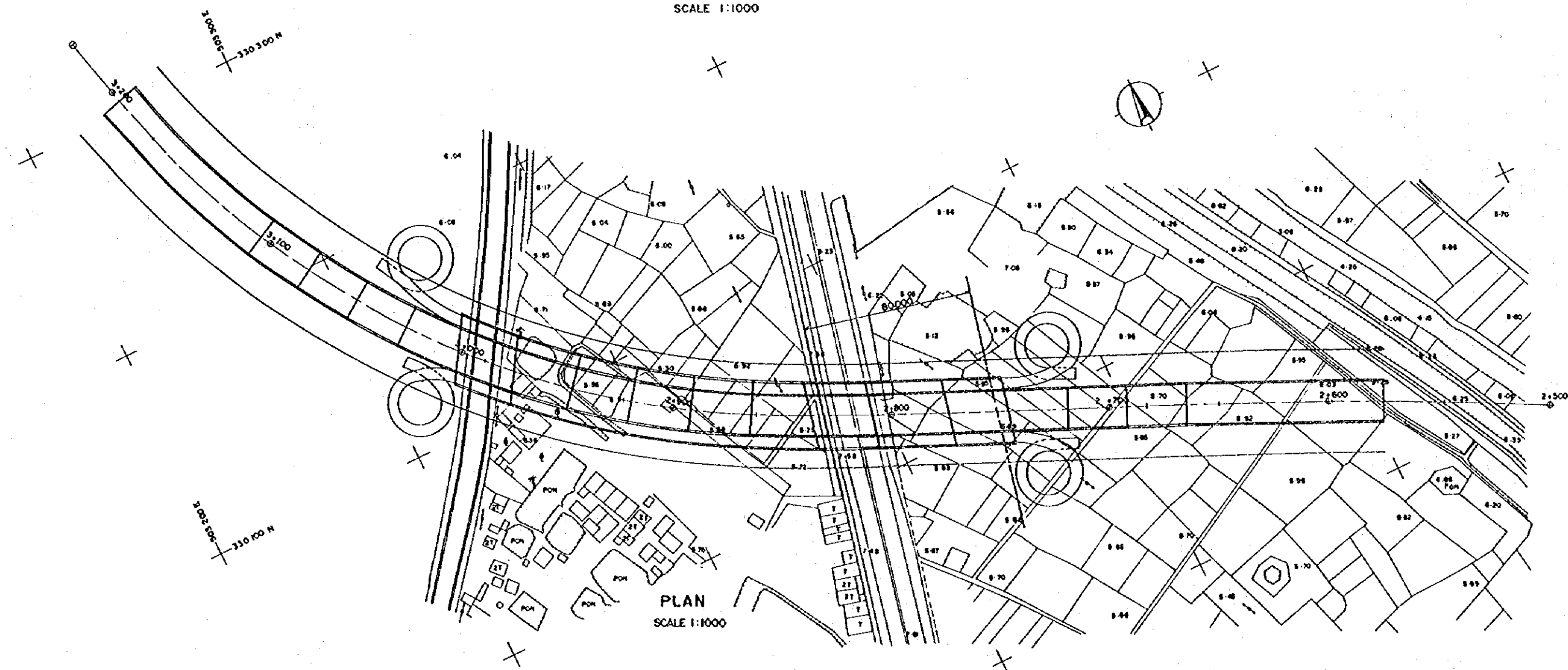
Work Items	Unit	COMB. COLLECTOR AND WALKWAY W = 60m					WALKWAY W = 60.0m				
		Quantity	Length (m)	First Sta.	Second Sta.	Third Sta.	Quantity	Length (m)	First Sta.	Second Sta.	Third Sta.
Clearing & Grubbing	SQM/M	64.00	577	577	0	0	61.00	463.92	463.92	0	0
Embankment	CM/M	62.50	577	577	0	0	62.50	463.92	463.92	0	0
Subgrade Preparation	SQM/M	61.00	577	577	0	0	61.00	463.92	463.92	0	0
Subbase Course	CM/M	9.54	577	577	0	0	0	463.92	463.92	0	0
Base Couse	CM/M	4.05	577	577	0	0	0	463.92	463.92	0	0
Prim Coat	TONE/M	0.033	577	577	0	0	0	463.92	463.92	0	0
Tack Coat	TONE/M	0.011	577	577	0	0	0	463.92	463.92	0	0
Asphalt Concrete	TONE/M	5.28	577	577	0	0	0	463.92	463.92	0	0
Center Median	CM/M	0.50	577	577	0	0	0	463.92	463.92	0	0
Separate Strip	CM/M	1.00	577	577	0	0	0	463.92	463.92	0	0
Curb & Gutter	LM/M	8.00	577	577	0	0	0	463.92	463.92	0	0
Sidewalk	SQM/M	31.00	577	577	0	0	31.00	463.92	463.92	0	0
Drainage	LM/M	2.00	577	577	0	0	2.00	463.92	463.92	0	0
Catch Basin	EACH	46					34				
Road Safety Devices	LM/M	0.50	577	577	0	0	0.25	463.92	463.92	0	0
Plantation	SQM/M	2.00	577	577	0	0	4.00	463.92	463.92	0	0
Boundary Block	LM/M	2.00	577	577	0	0	2.00	463.92	463.92	0	0

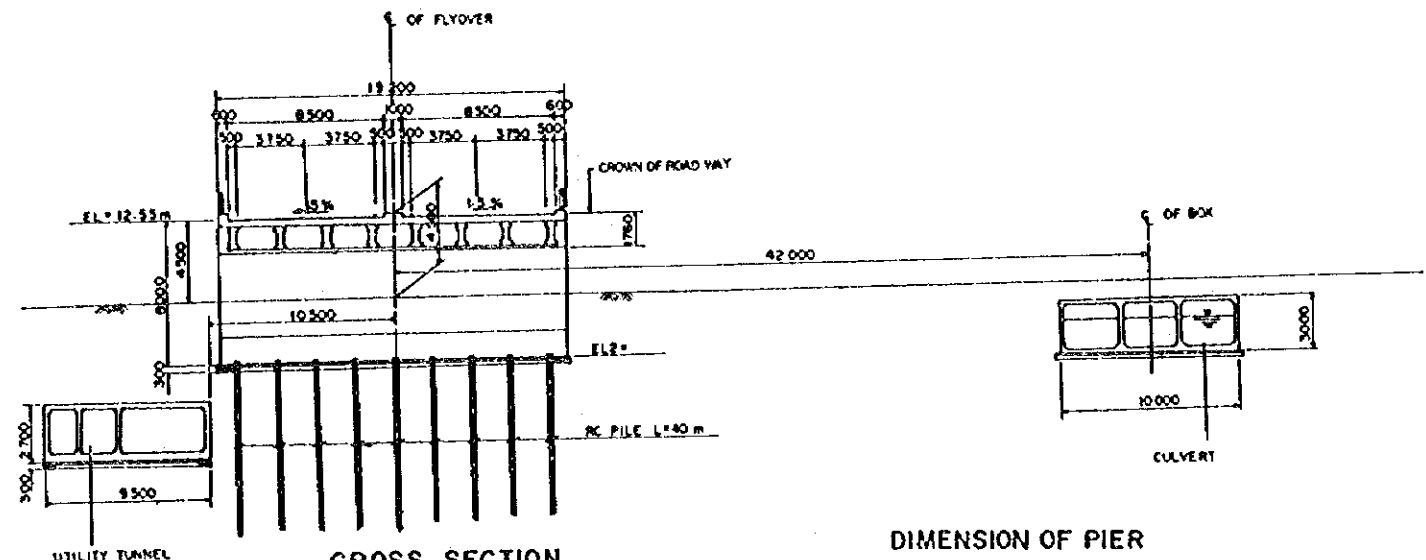
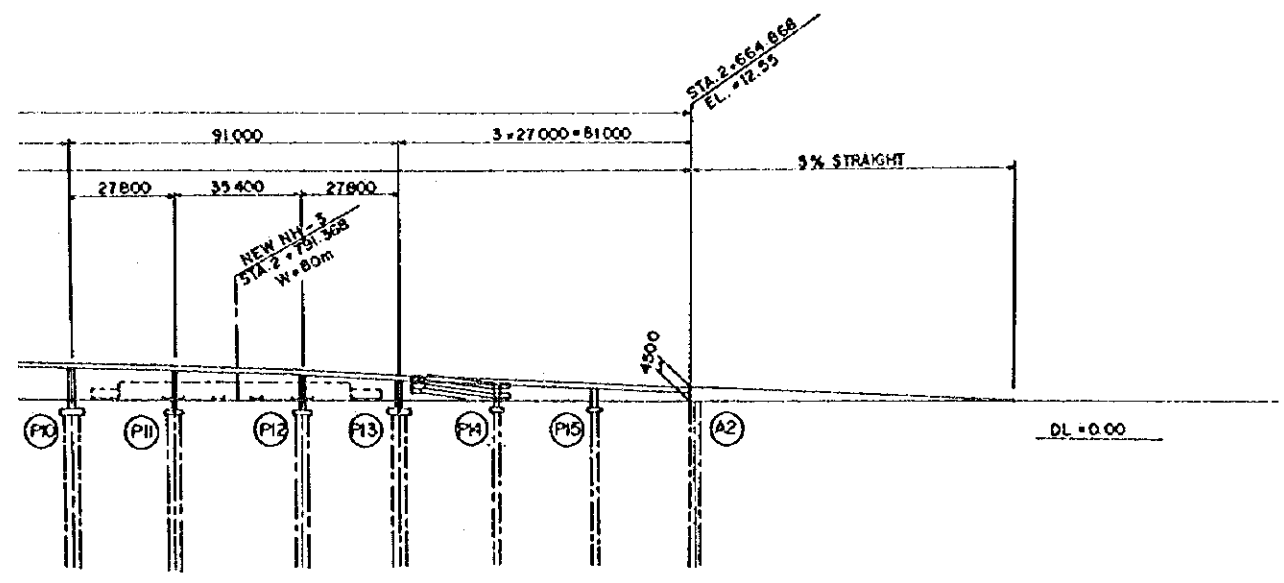
III. STRUCTURES





ELEVATION
 SCALE 1:1000

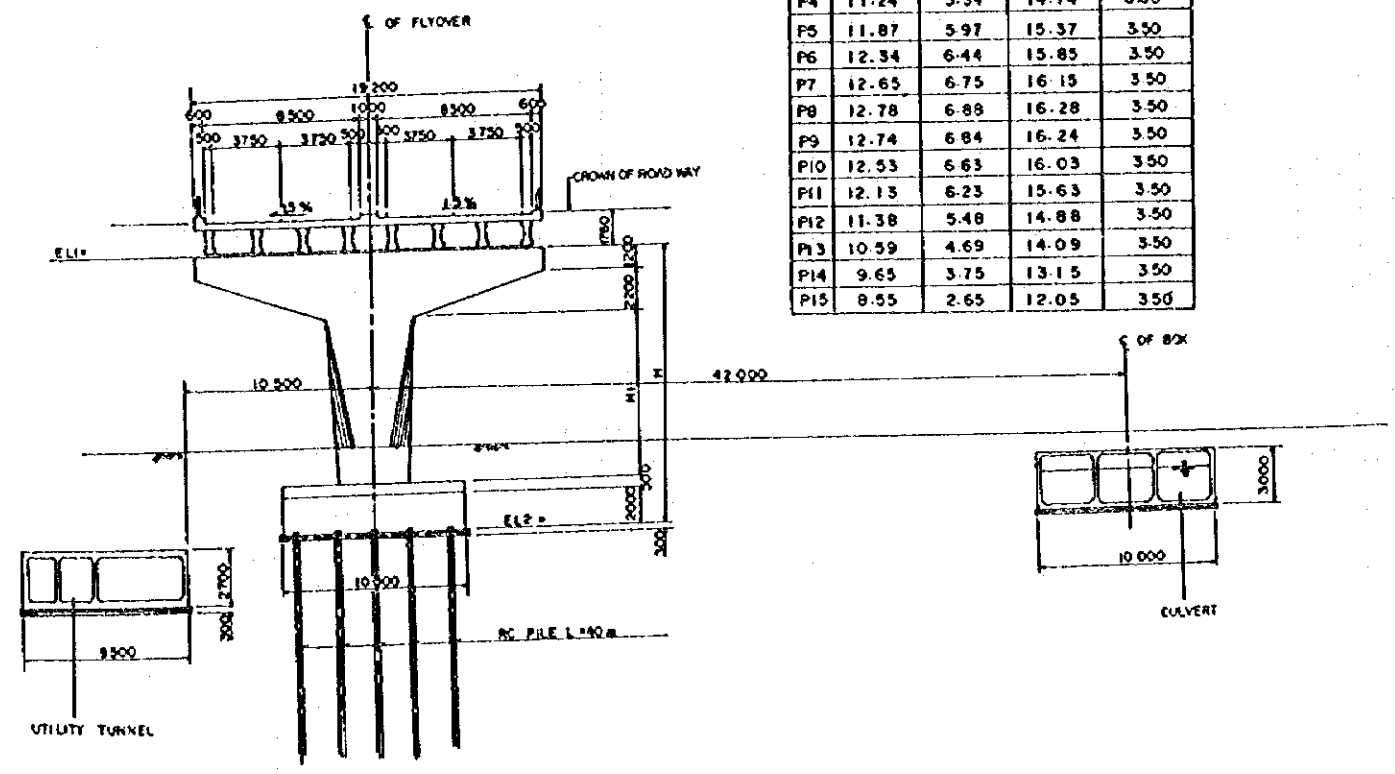
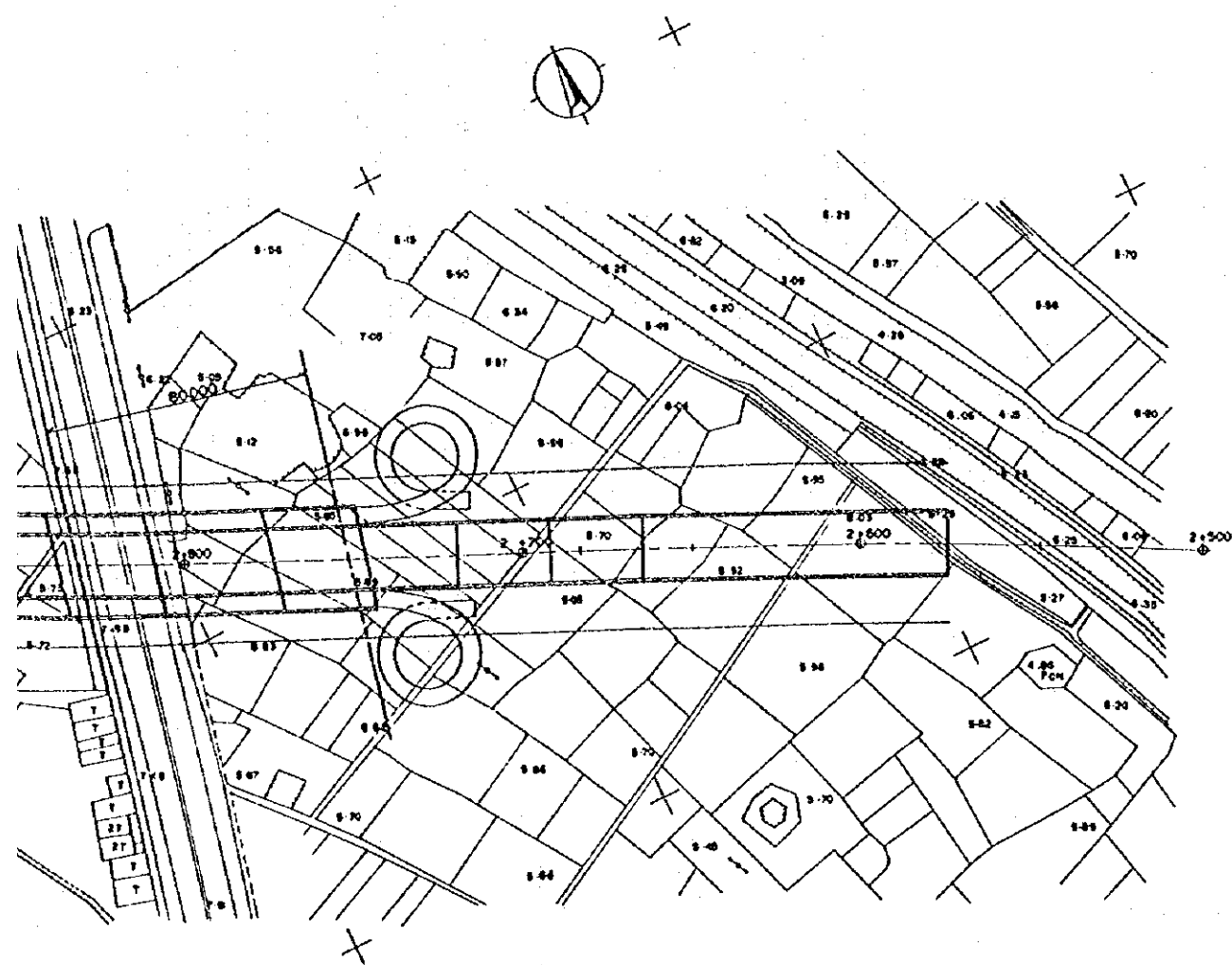




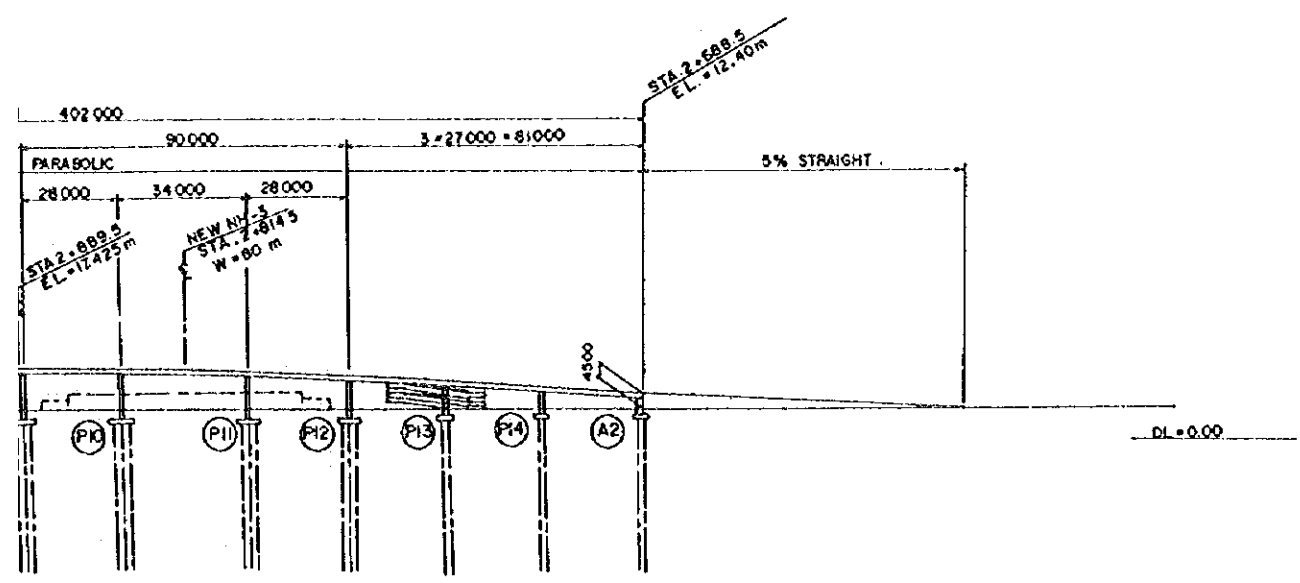
CROSS SECTION
A1, A2 ABUTMENT
SCALE 1:20

DIMENSION OF PIER

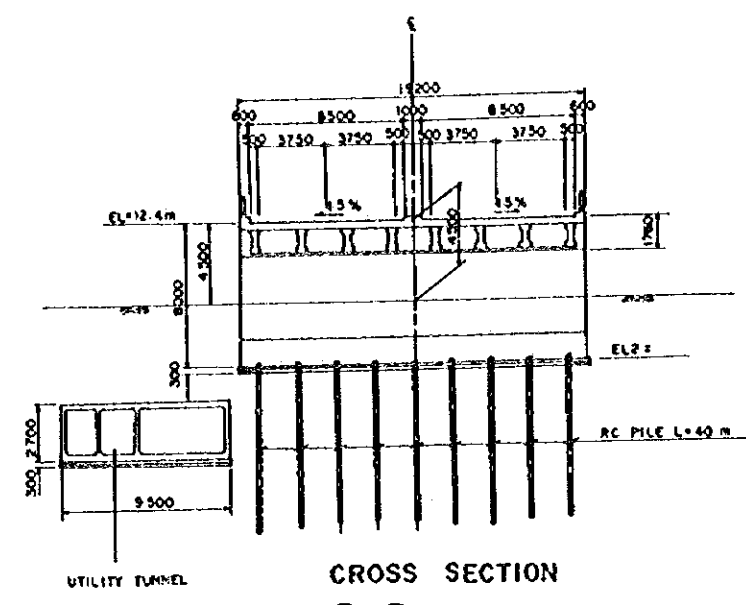
PIER	H	H1	EL1	EL2
P1	8.50	2.60	12.00	3.50
P2	9.56	3.66	13.06	3.50
P3	10.48	4.58	13.98	3.50
P4	11.24	5.34	14.74	3.50
P5	11.87	5.97	15.37	3.50
P6	12.34	6.44	15.85	3.50
P7	12.65	6.75	16.15	3.50
P8	12.78	6.88	16.28	3.50
P9	12.74	6.84	16.24	3.50
P10	12.53	6.63	16.03	3.50
P11	12.13	6.23	15.63	3.50
P12	11.38	5.48	14.88	3.50
P13	10.59	4.69	14.09	3.50
P14	9.65	3.75	13.15	3.50
P15	8.55	2.65	12.05	3.50



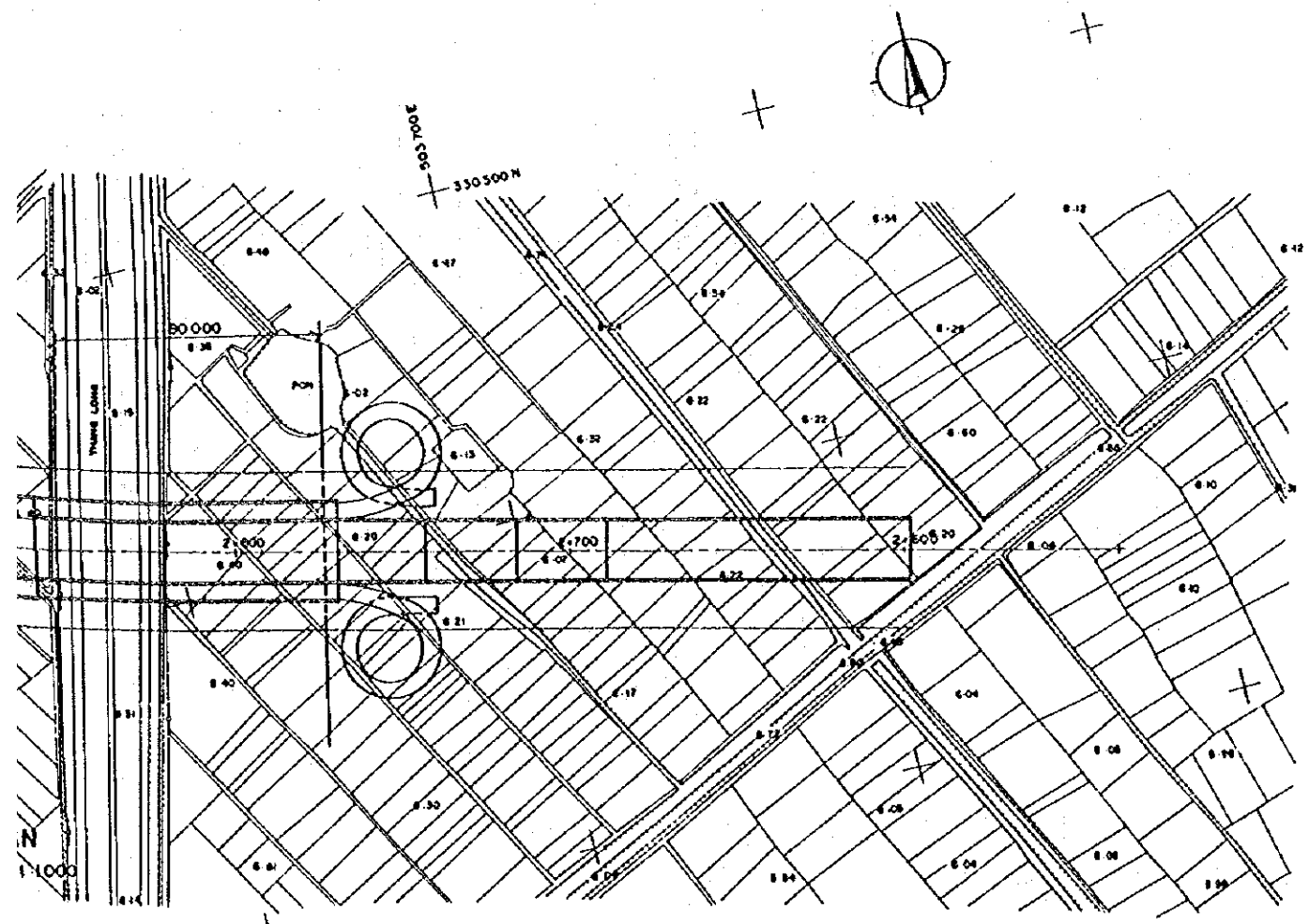
CROSS SECTION
P1 - P15 PIER
SCALE 1:20



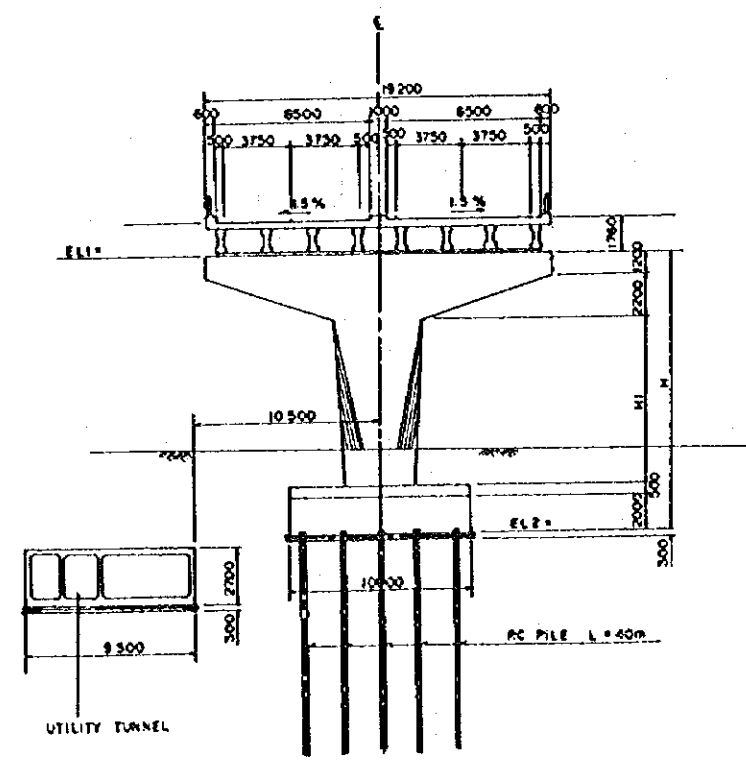
SECTION
 1:1000



CROSS SECTION
 A1 - A2 ABUTMENT
 SCALE 1:20



SECTION
 1:1000

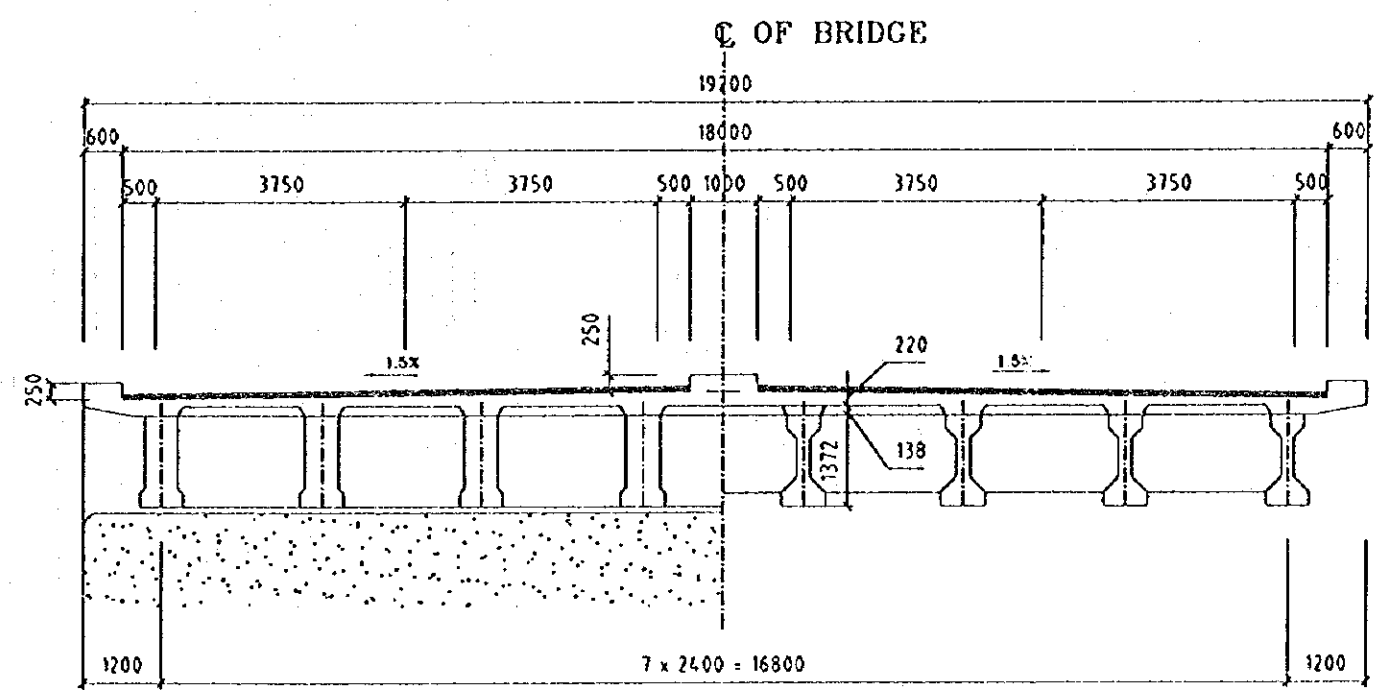
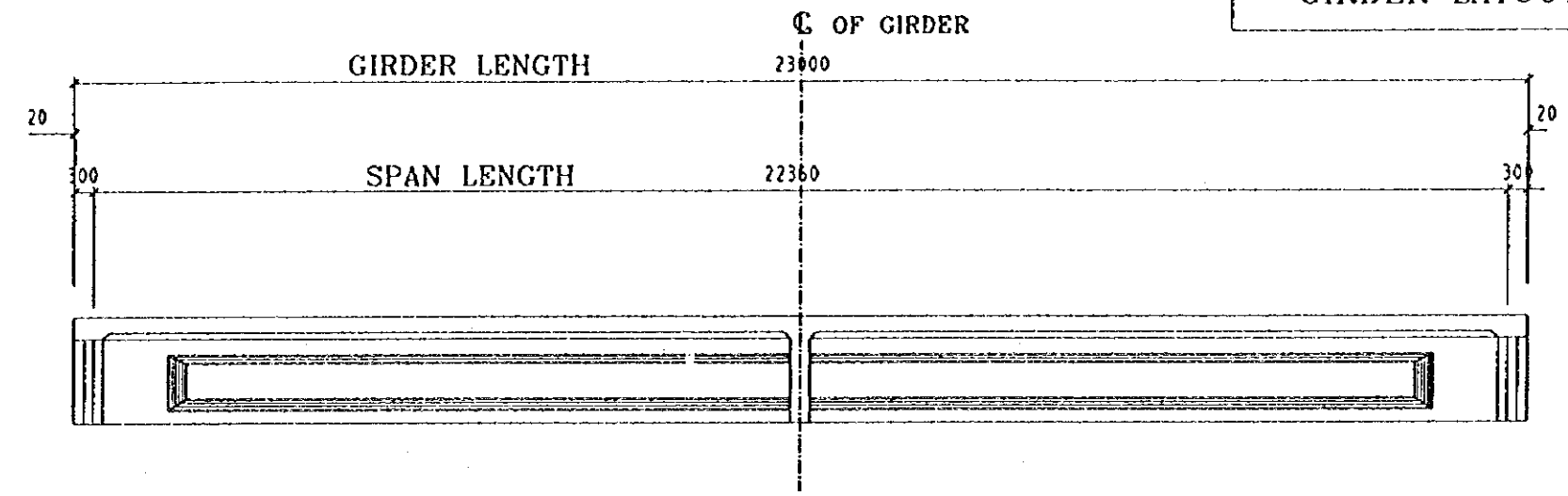


CROSS SECTION
 P1 - P14 PIER
 SCALE 1:20

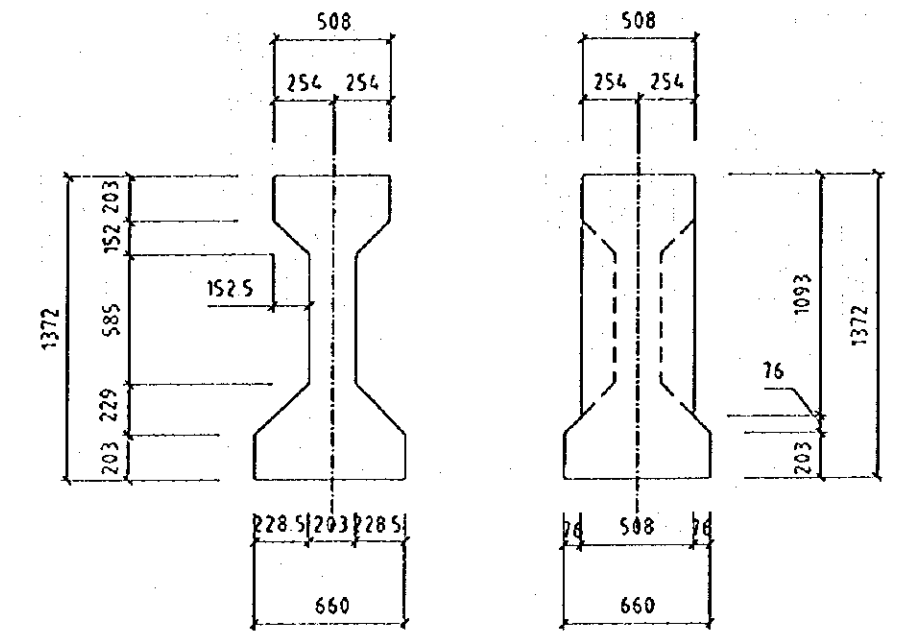
DIMENSION OF PIER

PIER	H	H1	EL1	EL2
P1	8.39	2.49	11.89	3.50
P2	9.47	3.57	12.97	3.50
P3	10.37	4.47	13.87	3.50
P4	11.08	5.18	14.58	3.50
P5	11.62	5.72	15.12	3.50
P6	11.97	6.07	15.47	3.50
P7	12.13	6.23	15.63	3.50
P8	12.15	6.25	15.65	3.50
P9	12.05	6.15	15.55	3.50
P10	11.74	5.84	15.24	3.50
P11	11.11	5.21	14.61	3.50
P12	10.37	4.47	13.87	3.50
P13	9.47	3.57	12.97	3.50
P14	8.39	2.49	11.89	3.50

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
GIRDER LAYOUT (1)	AS SHOWN	71

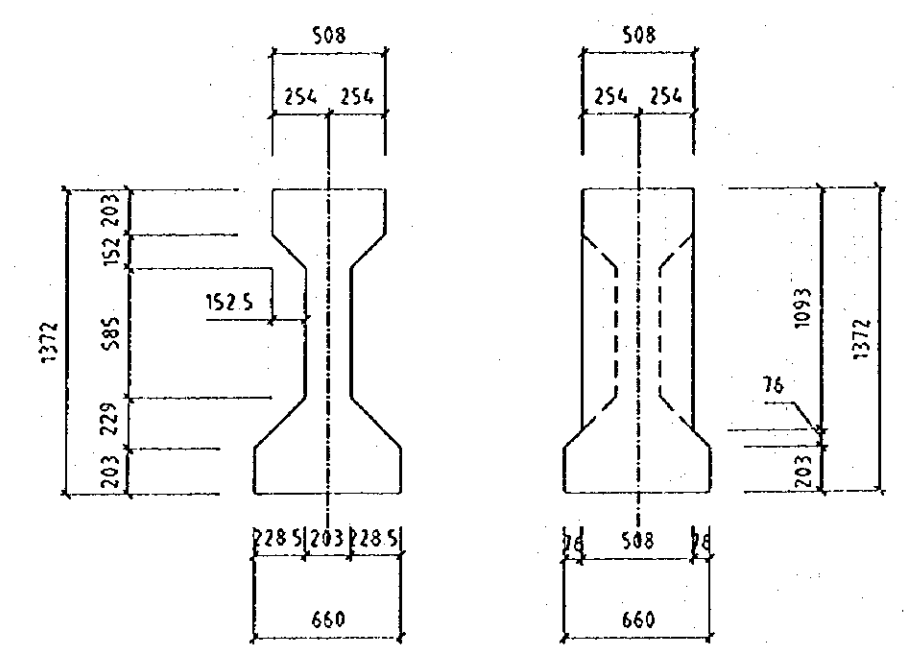
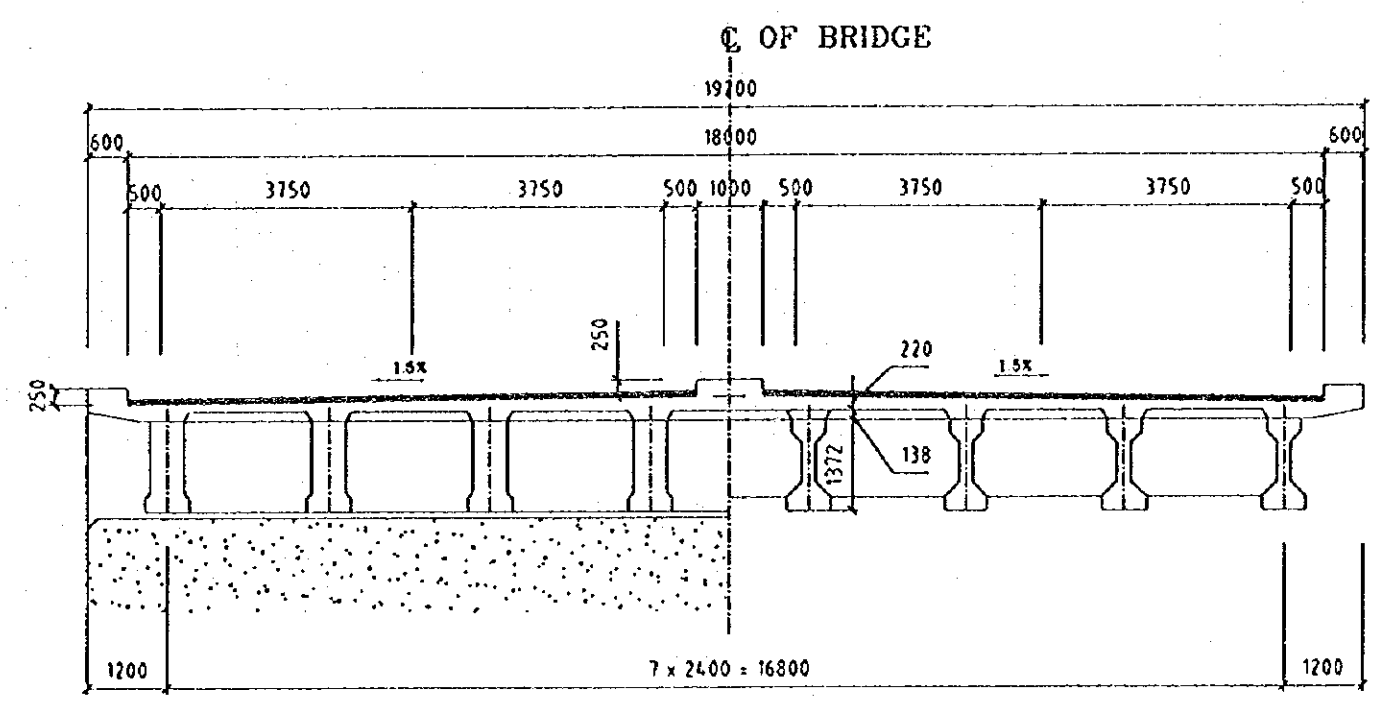
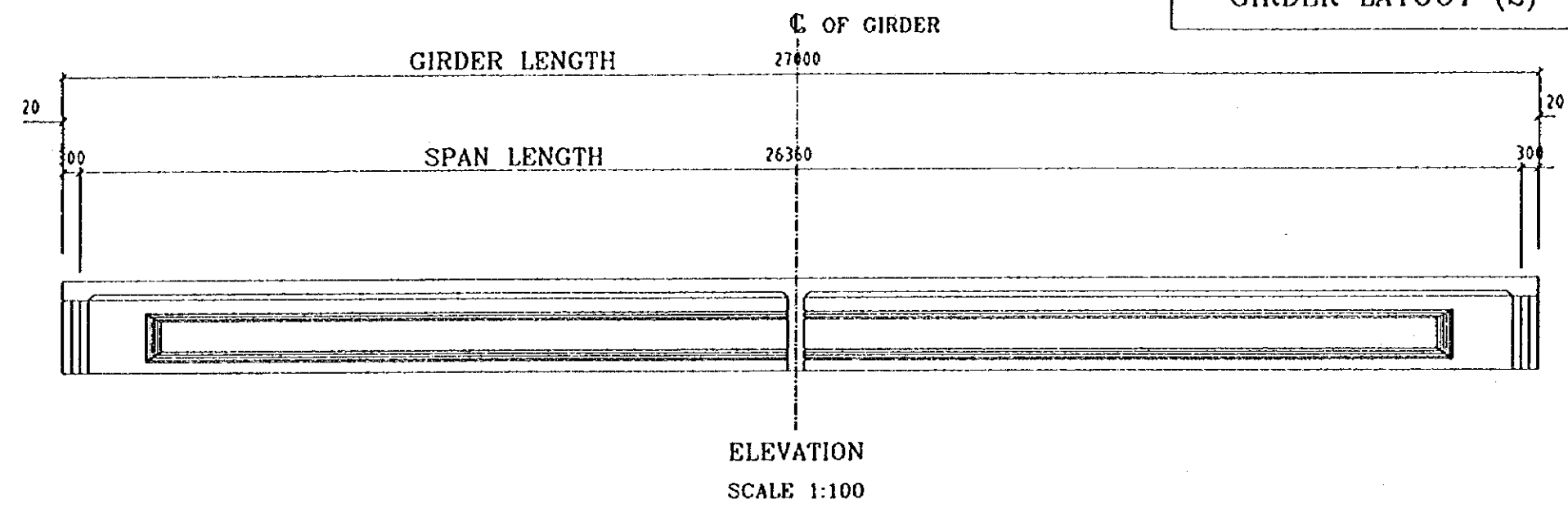


HALF SHOWING END DIAPHRAGM HALF SHOWING INTERMEDIATE DIAPHRAGM
 CROSS SECTION
 SCALE 1:100

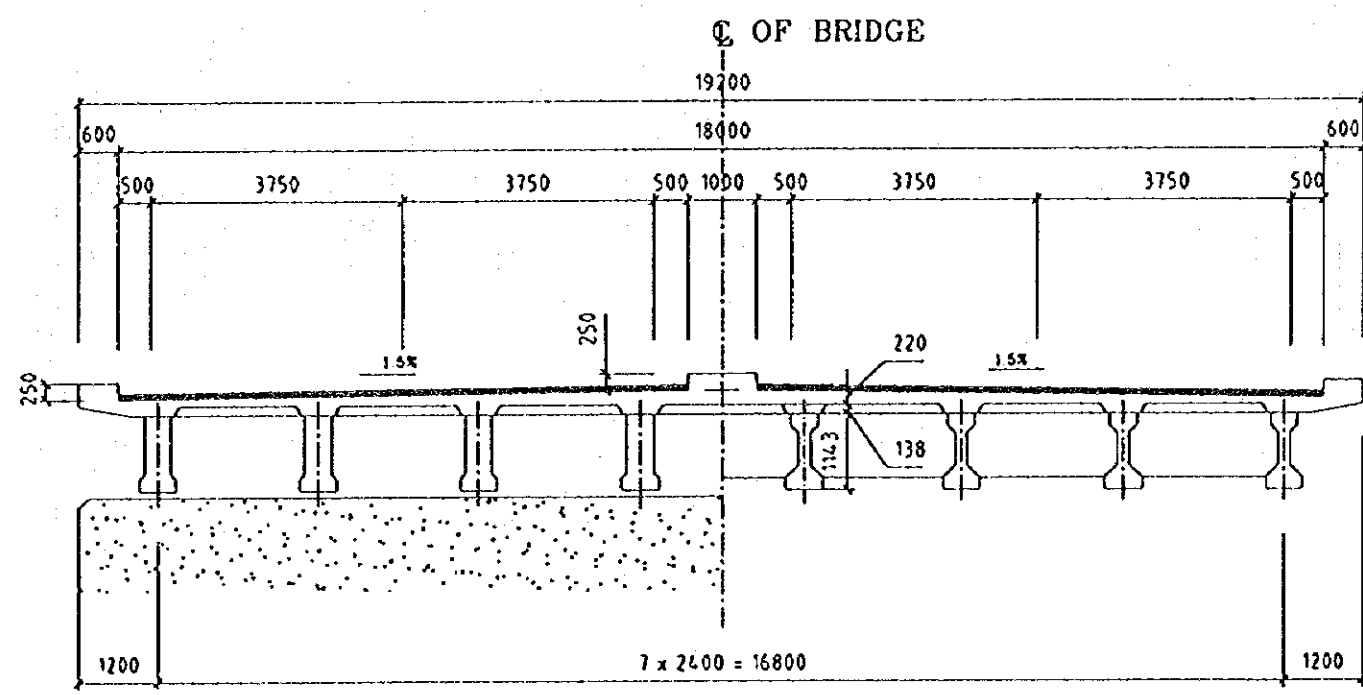
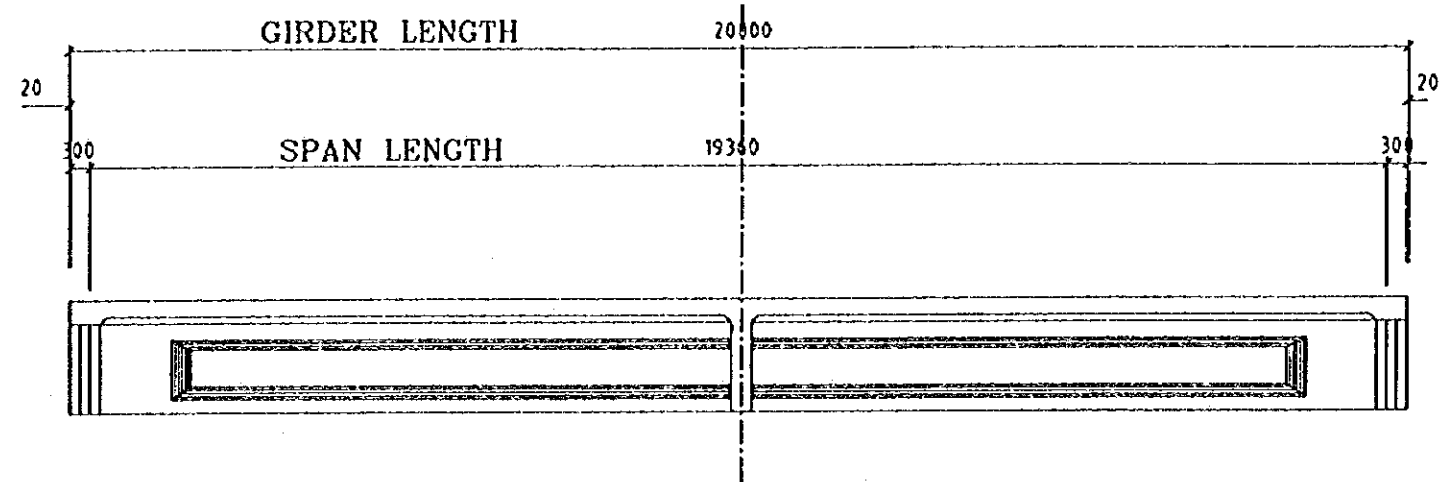


INTERMEDIATE END
 GIRDER SECTION
 SCALE 1:30

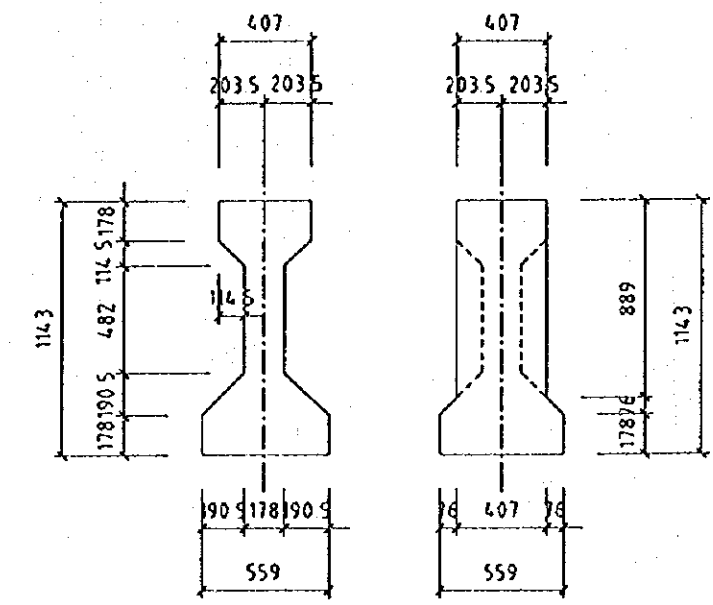
SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
GIRDER LAYOUT (2)	AS SHOWN	72



SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG No
GIRDER LAYOUT -- (3)	AS SHOWN	73

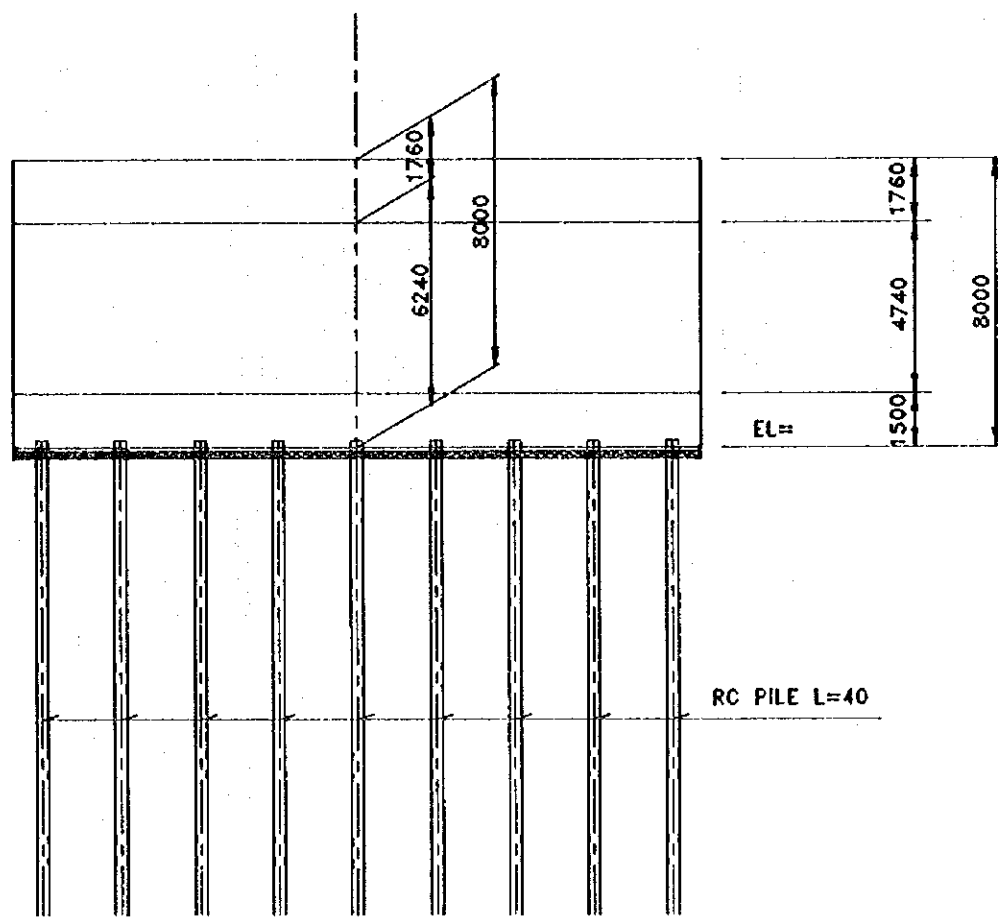
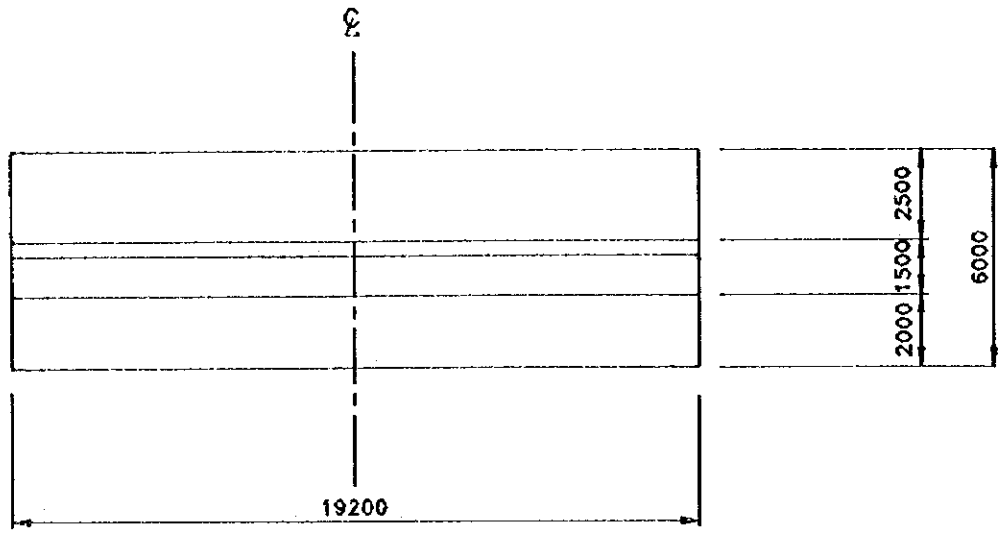


HALF SHOWING END DIAPHRAGM HALF SHOWING INTERMEDIATE DIAPHRAGM
 CROSS SECTION
 SCALE 1:100

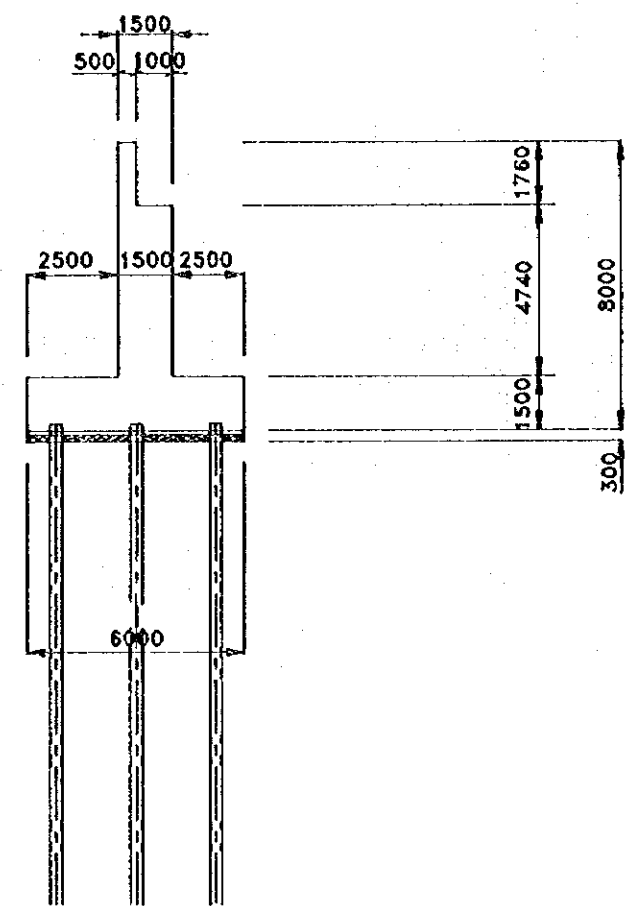


INTERMEDIATE END
 GIRDER SECTION
 SCALE 1:30

SOCIALIST REPUBLIC OF VIETNAM		
THE FEASIBILITY STUDY OF NEW CBD FOR HANOI CITY		
TITLE	ORIGINAL SCALE	DWG. No.
ABUTMENT (NORTH SIDE)	AS SHOWN	74



PLAN AND ELEVATION

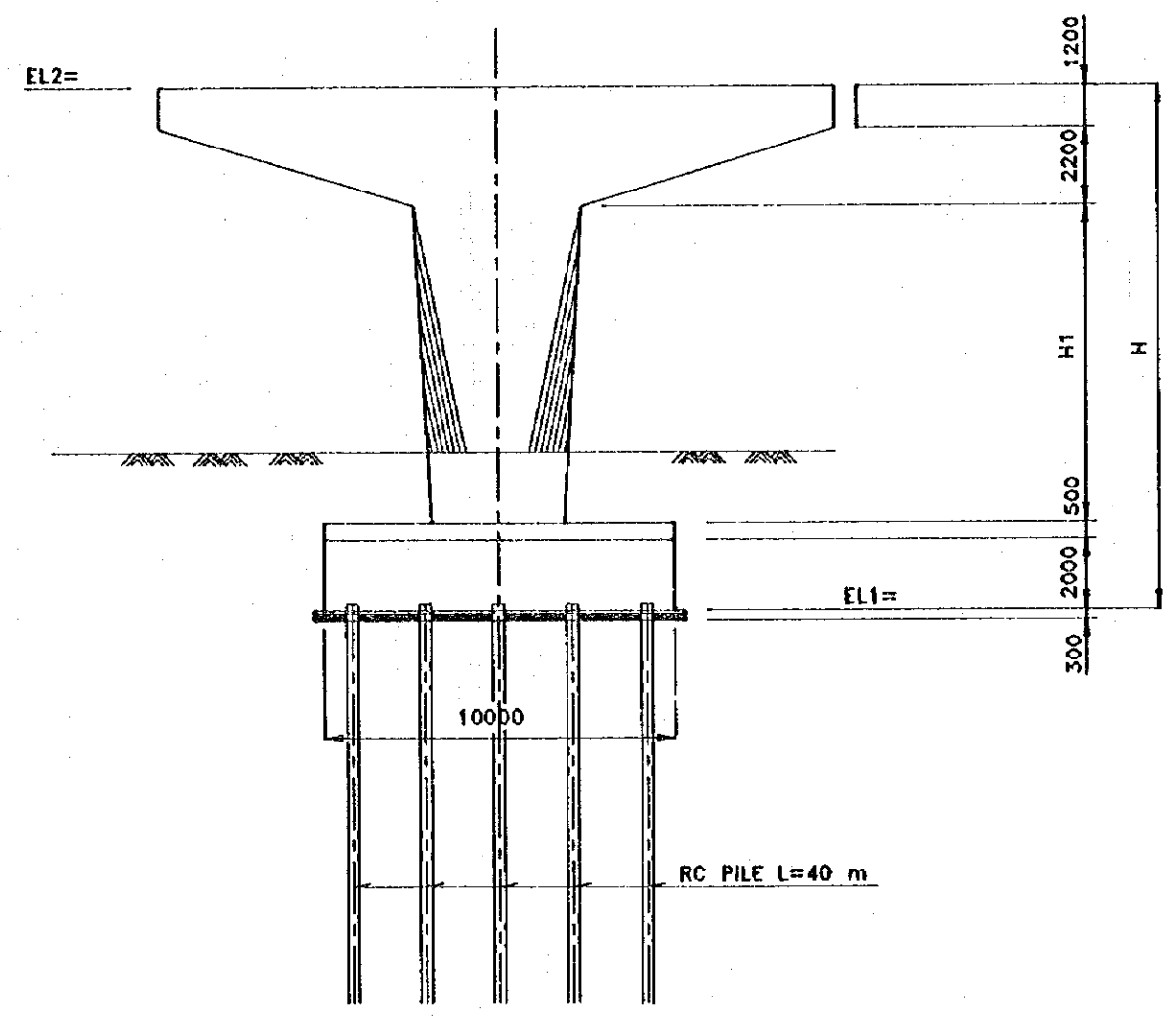
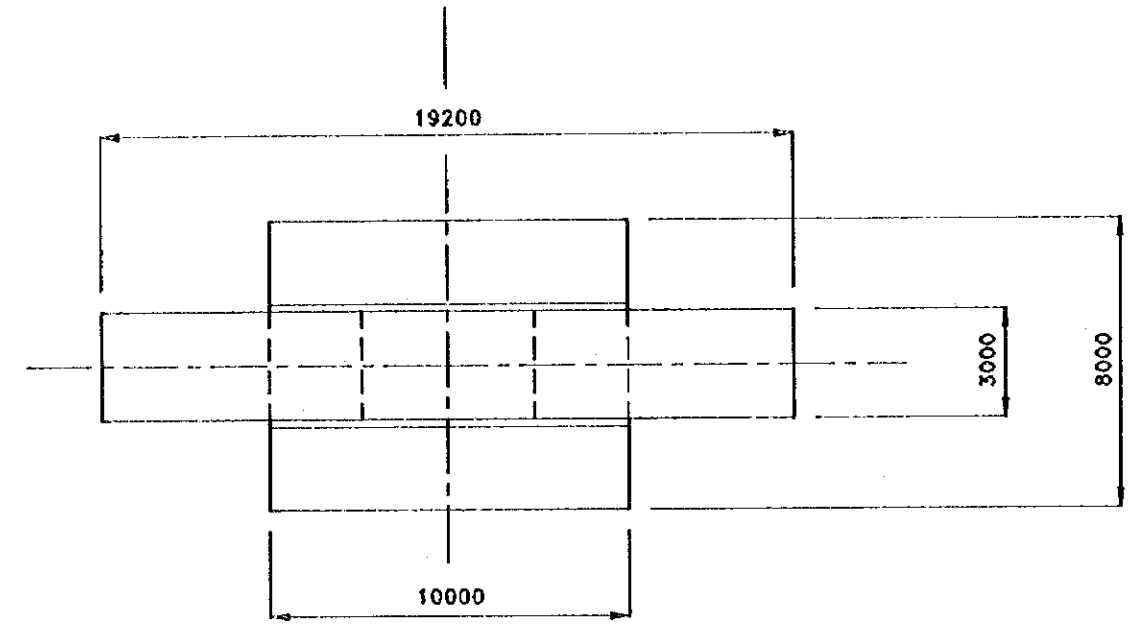


CROSS SECTION

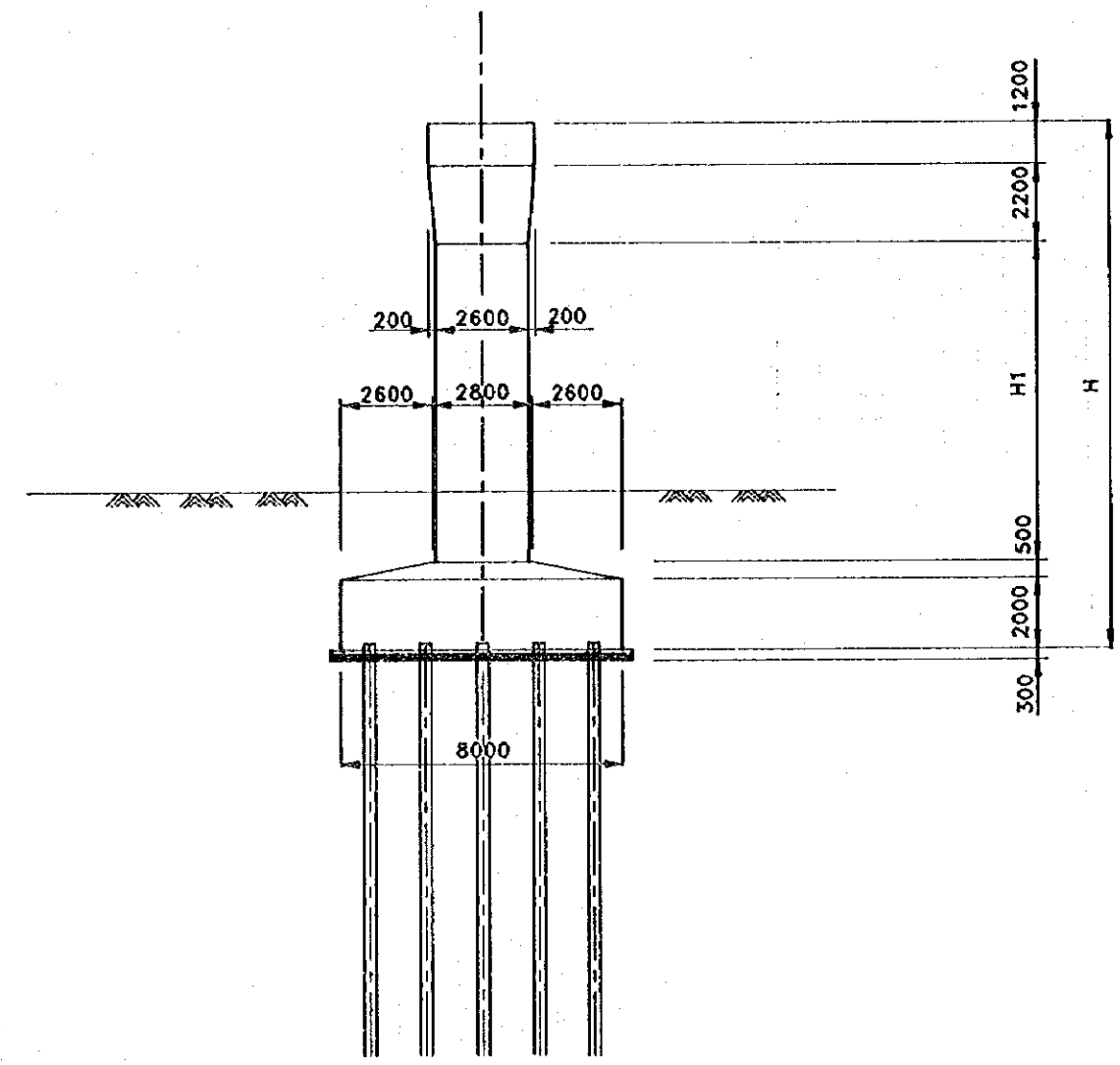
DIMENSION OF PIER

PIER	H	H1	EL1	EL2
P1	8.39	2.49	11.89	3.50
P2	9.47	3.57	12.97	3.50
P3	10.37	4.47	13.87	3.50
P4	11.08	5.18	14.58	3.50
P5	11.62	5.72	15.12	3.50
P6	11.97	6.07	15.47	3.50
P7	12.13	6.23	15.63	3.50
P8	12.15	6.25	15.65	3.50
P9	12.05	6.15	15.55	3.50
P10	11.74	5.84	15.24	3.50
P11	11.11	5.21	14.61	3.50
P12	10.37	4.47	13.87	3.50
P13	9.47	3.57	12.97	3.50
P14	8.39	2.49	11.89	3.50

Ø OF PIER

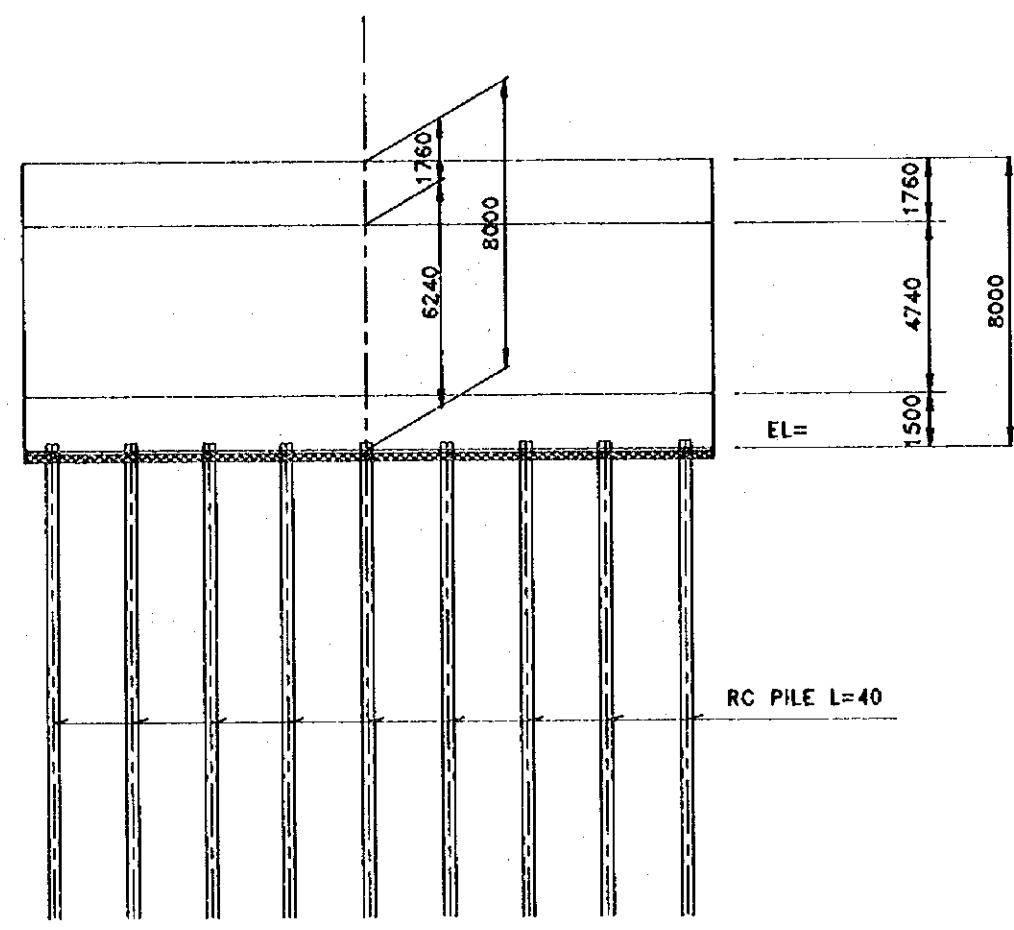
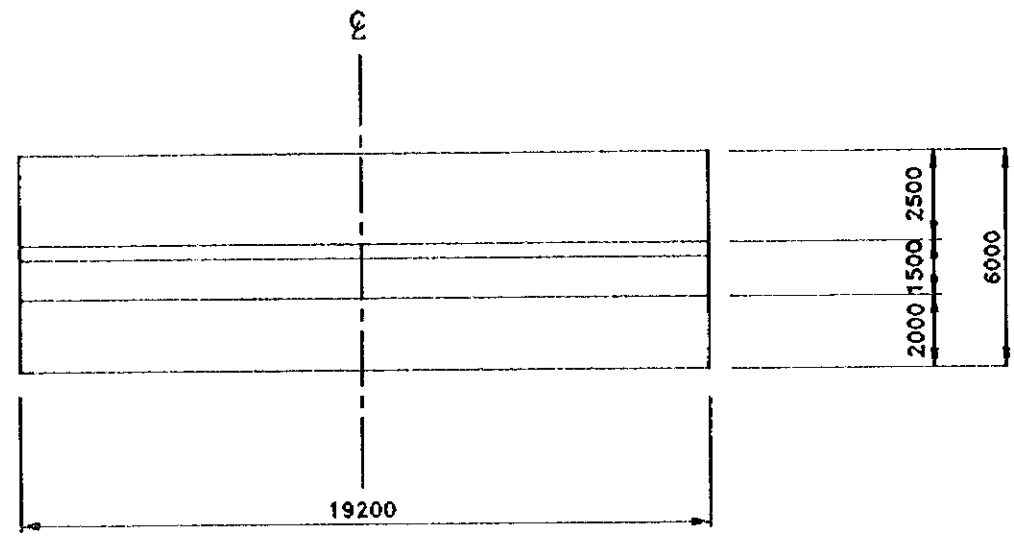


PLAN AND ELEVATION

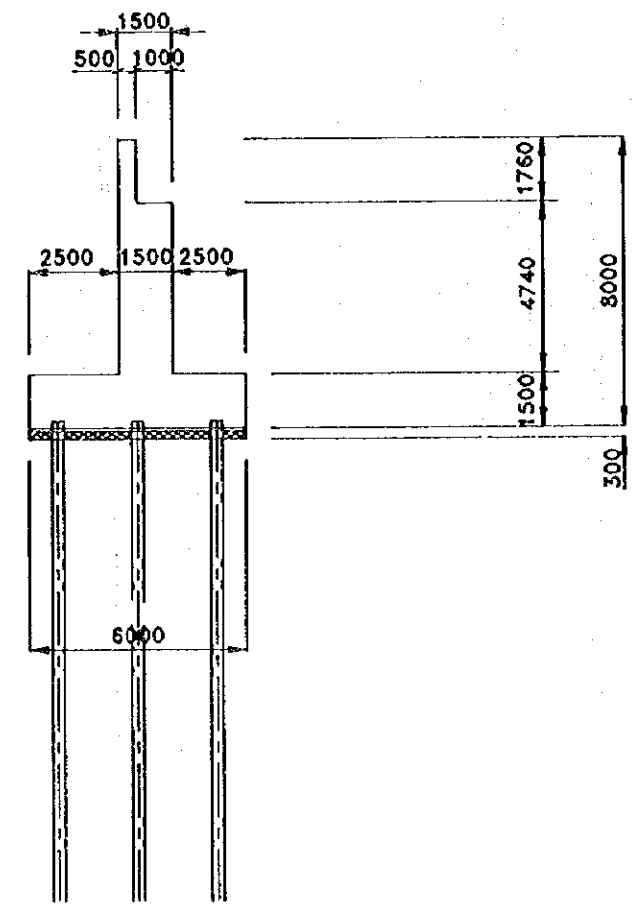


CROSS SECTION

SOCIALIST REPUBLIC OF VIETNAM		
THE FEASIBILITY STUDY OF NEW CBD FOR HANOI CITY		
TITLE	ORIGINAL SCALE	DWG. No.
ABUTMENT (SOUTH SIDE)	AS SHOWN	76



PLAN AND ELEVATION

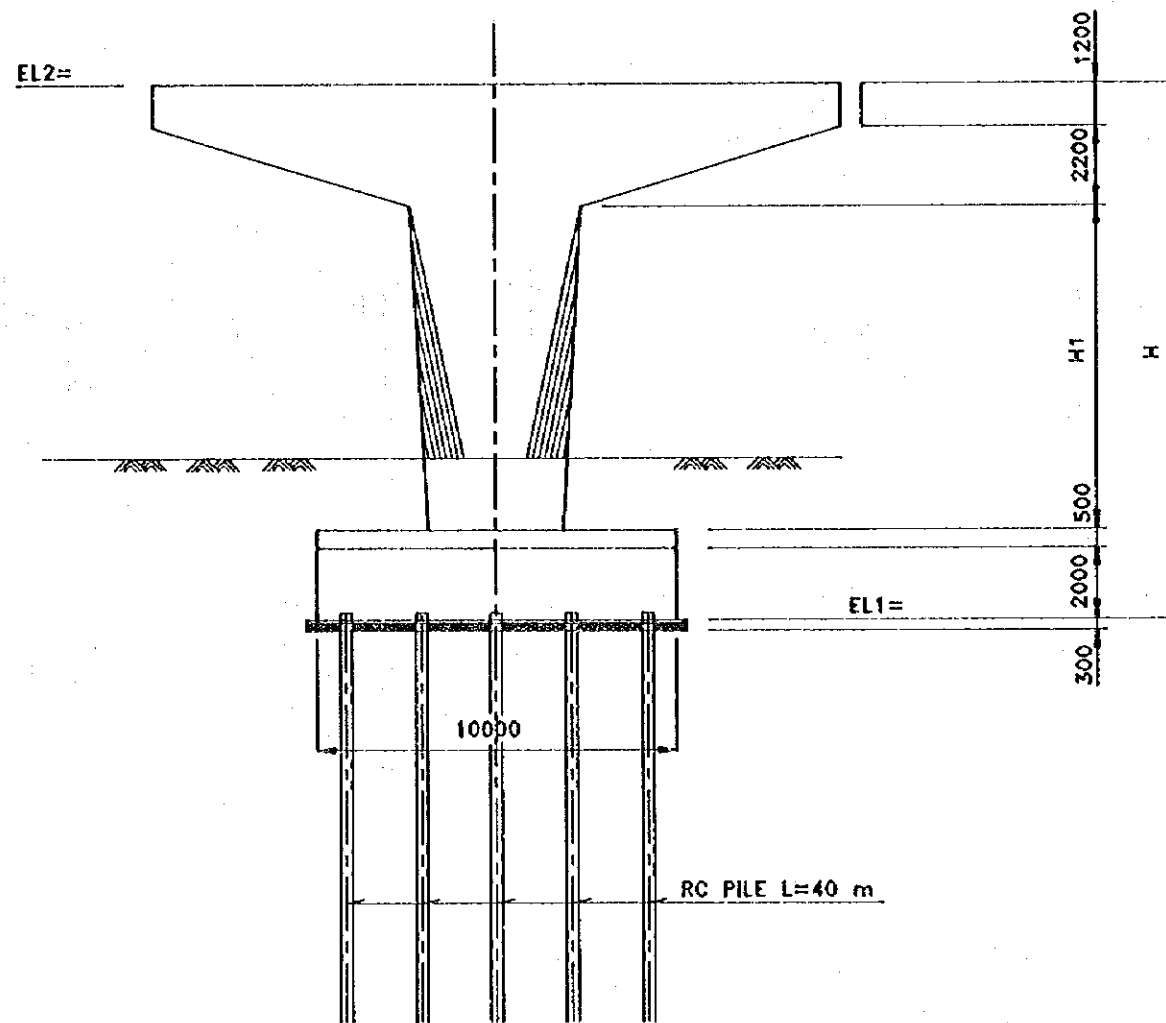
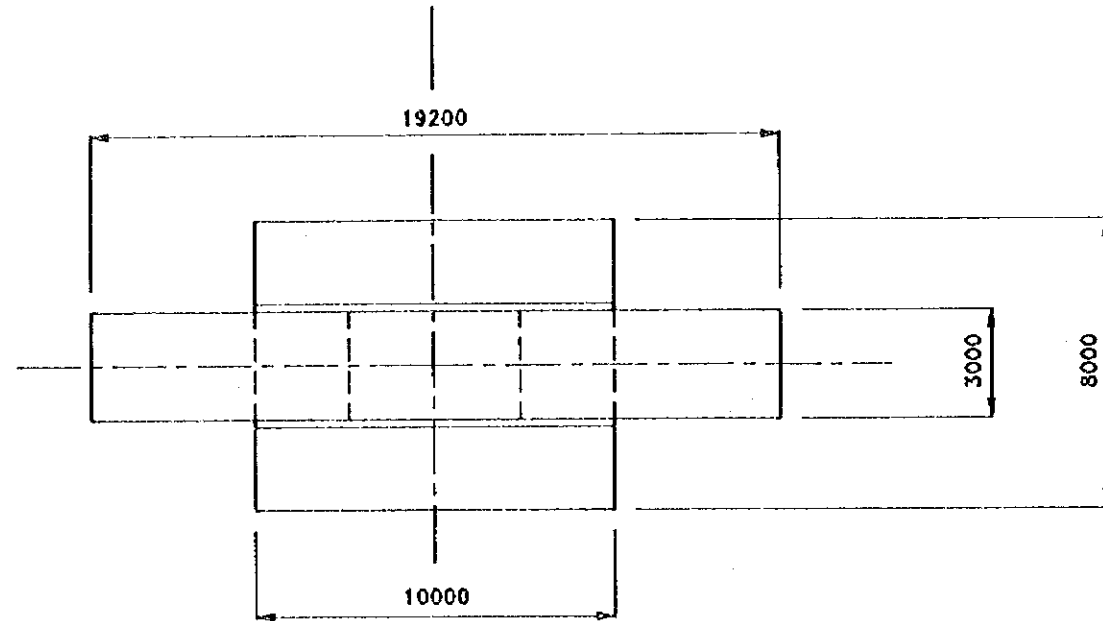


CROSS SECTION

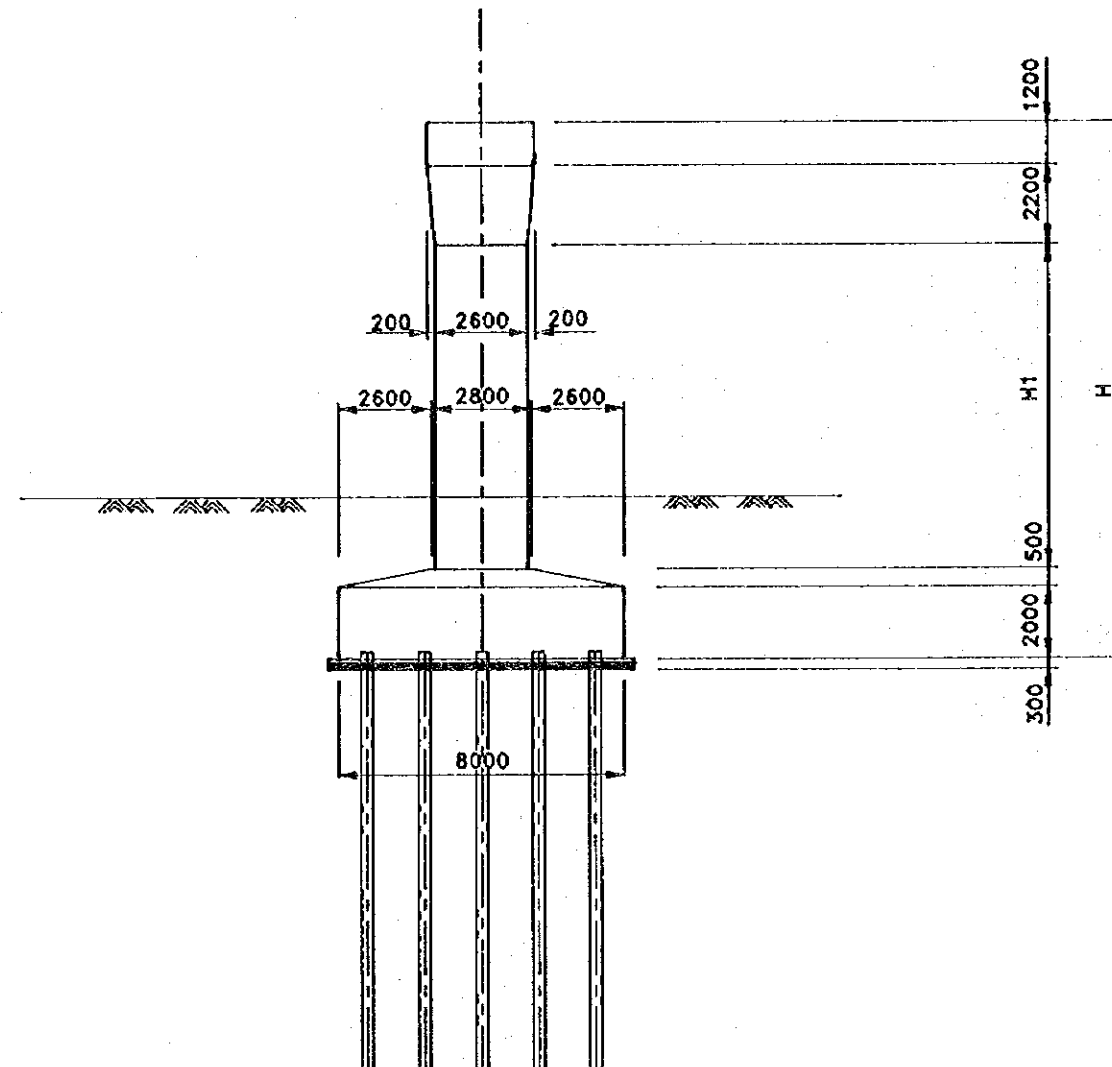
DIMENSION OF PIER

PIER	H	H1	EL1	EL2
P1	8.50	2.60	12.00	3.50
P2	9.56	3.66	13.06	3.50
P3	10.48	4.58	13.98	3.50
P4	11.24	5.34	14.74	3.50
P5	11.87	5.97	15.37	3.50
P6	12.34	6.44	15.85	3.50
P7	12.65	6.75	16.15	3.50
P8	12.78	6.88	16.28	3.50
P9	12.74	6.84	16.24	3.50
P10	12.53	6.63	16.03	3.50
P11	12.13	6.23	15.63	3.50
P12	11.38	5.48	14.88	3.50
P13	10.59	4.69	14.09	3.50
P14	9.65	3.75	13.15	3.50
P15	8.55	2.65	12.05	3.50

C OF PIER

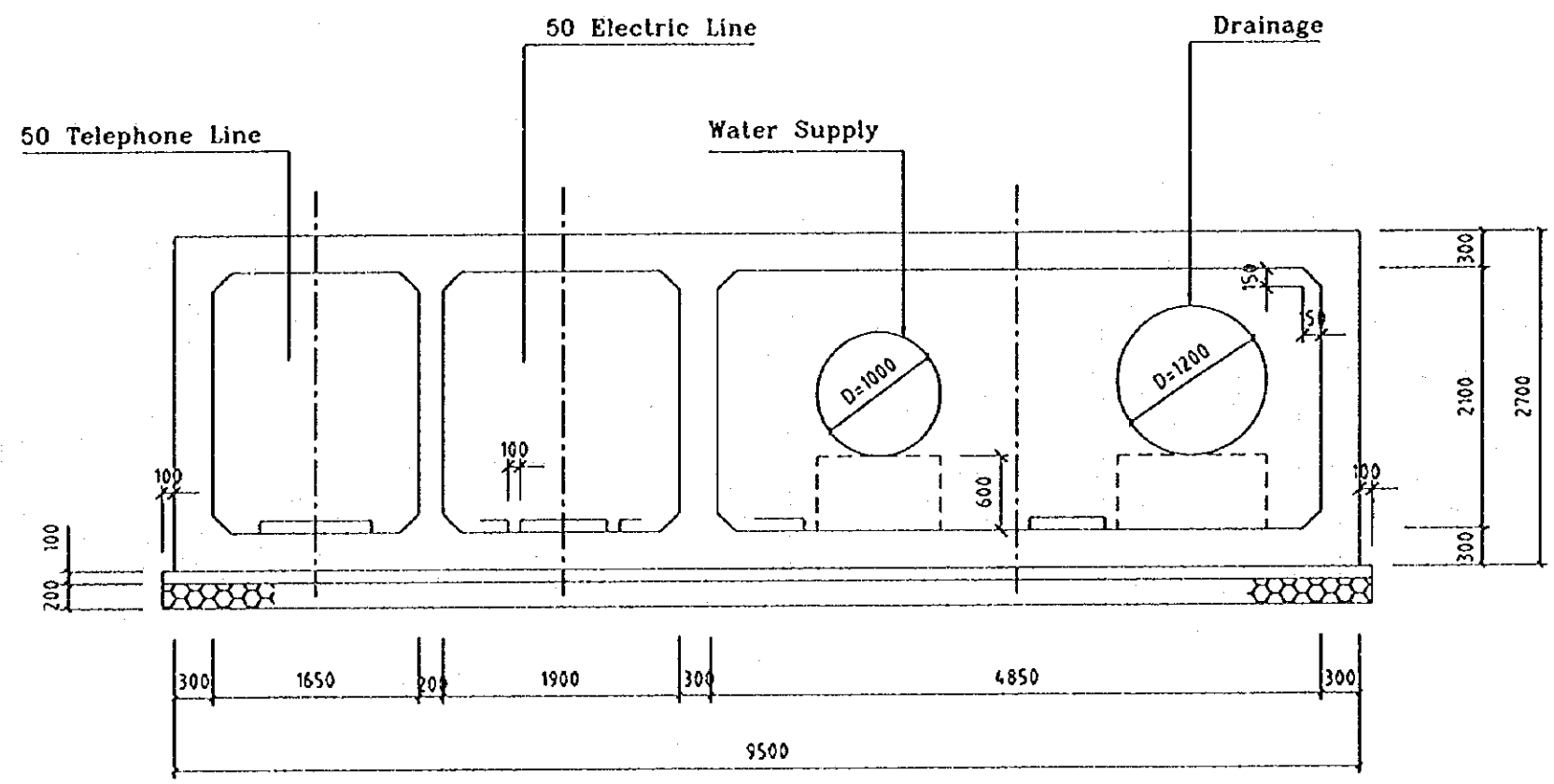


PLAN AND ELEVATION



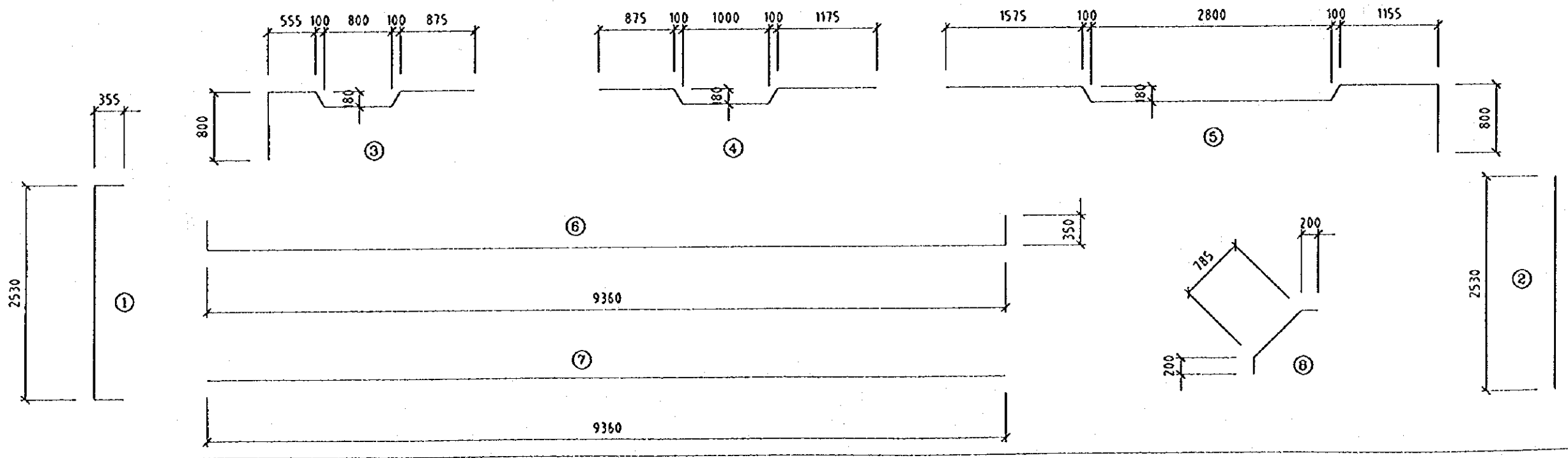
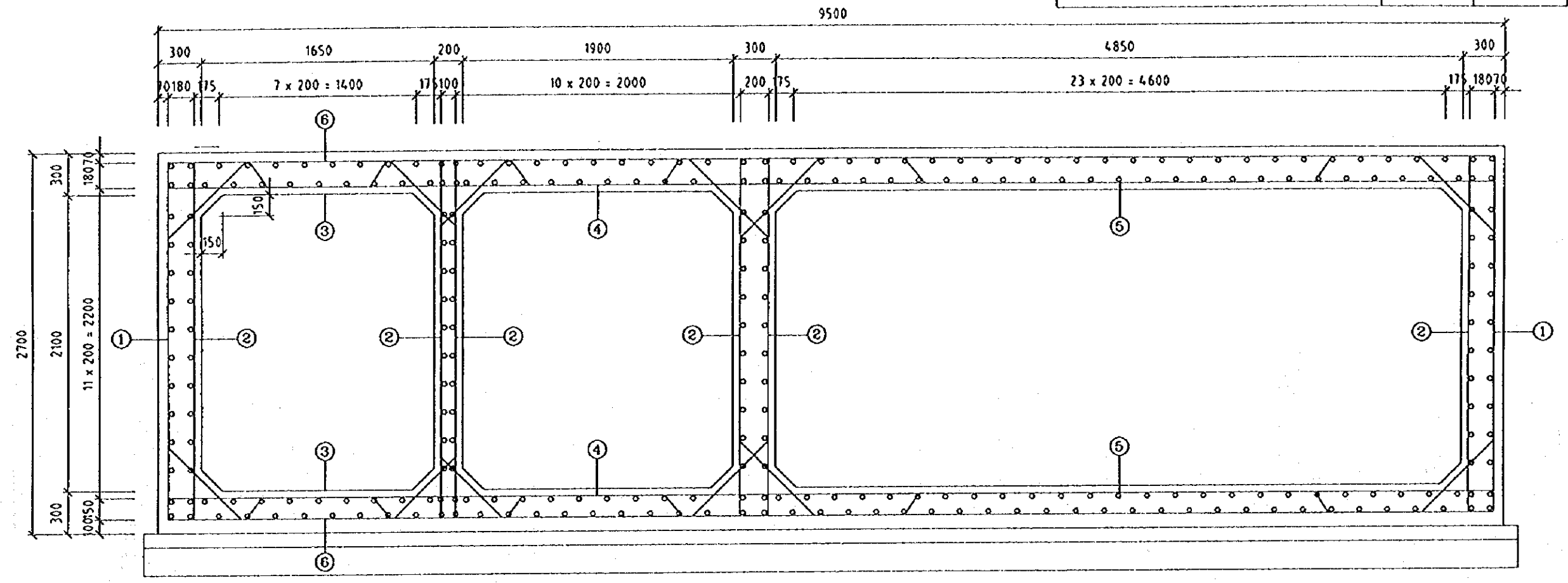
CROSS SECTION

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
UTILITY TUNNEL	AS SHOWN	78

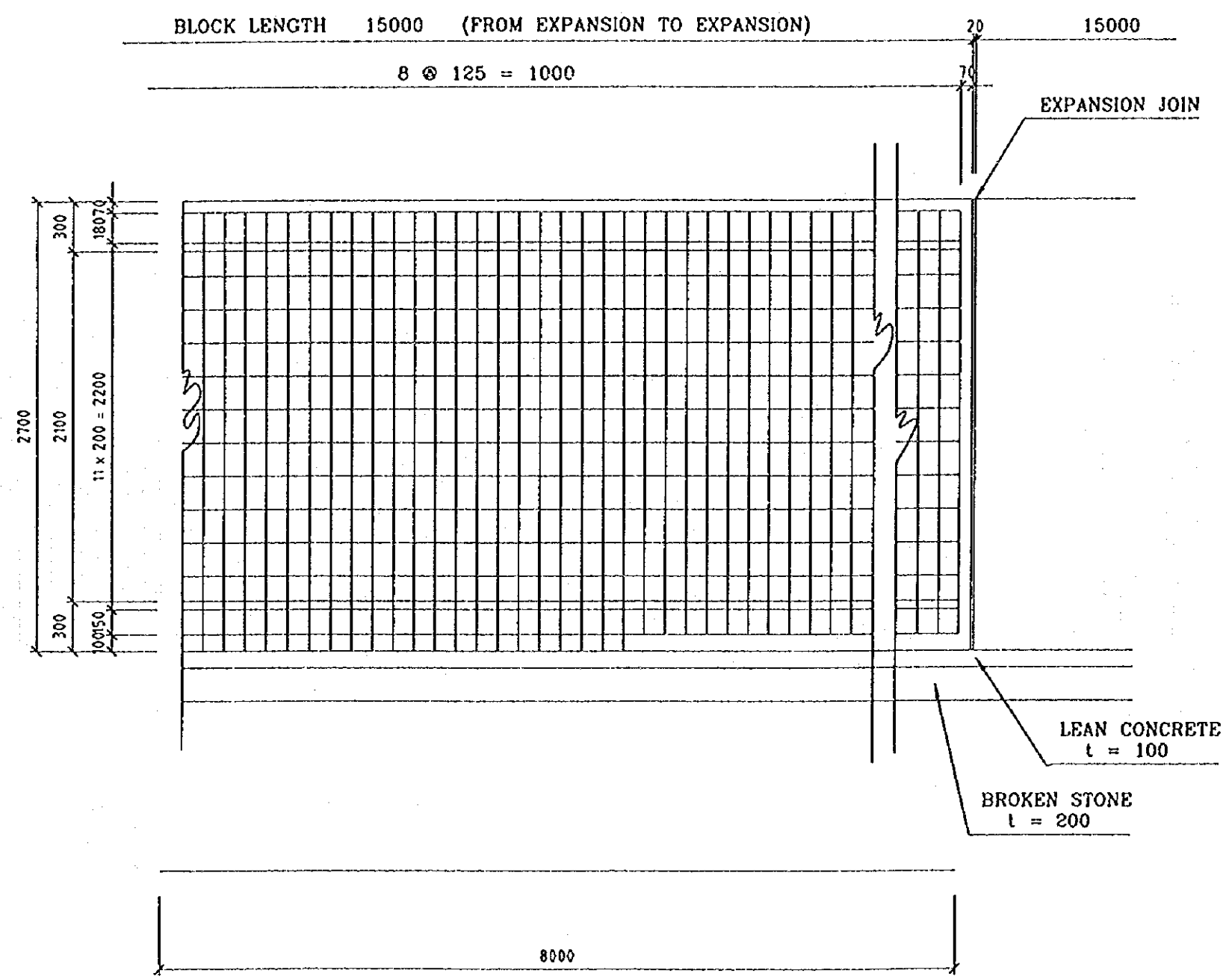


CROSS SECTION
SCALE 1:50

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
Quantity of Utility Tunnel (1)	1:30	79



SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
Quantity of Utility Tunnel (2)	1:30	80



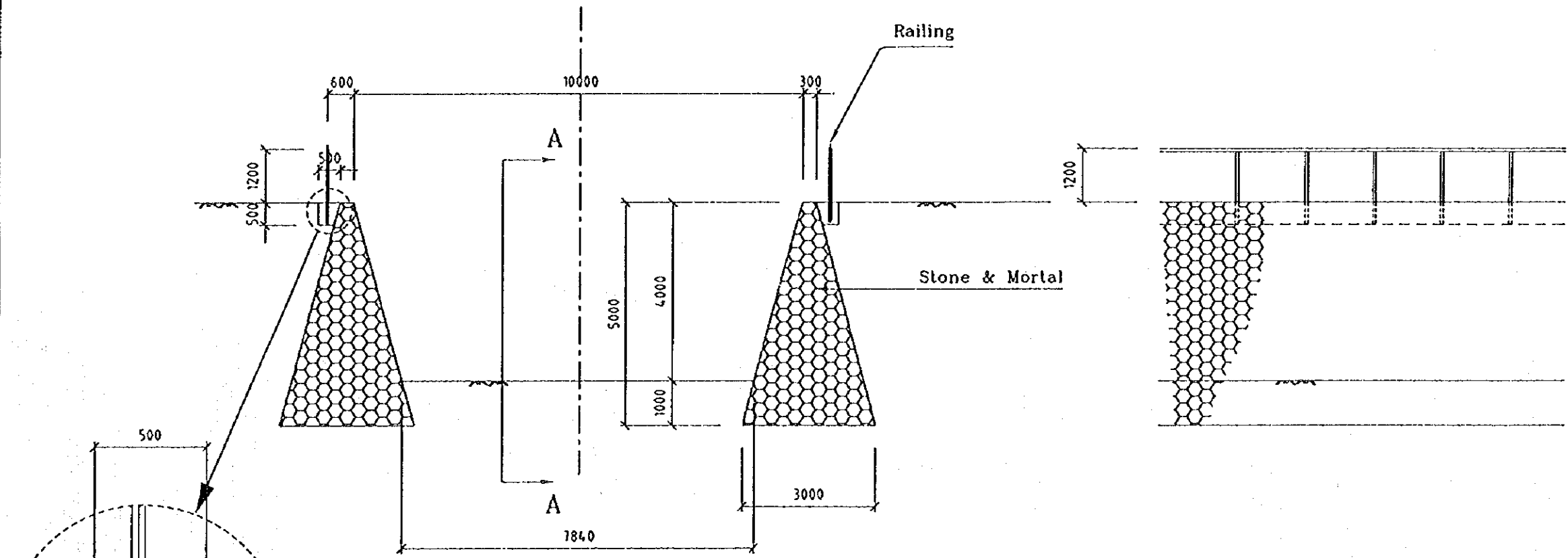
QUANTITY OF ONE BLOCK

1. REINFORCEMENT BAR

	D	L _(m)	n	W _(kg/m)	ΣW _(kg)
①	D16	3,240	240	1.56	1,213
②	D16	2,530	720	1.56	2,842
③	D19	3,442	240	2.25	1,859
④	D19	3,462	240	2.25	1,869
⑤	D22	6,742	240	3.04	4,914
⑥	D19	10,060	120	2.25	2,716
⑦	D19	9,360	120	2.25	2,527
⑧	D13	1,185	720	0.995	849
⑨	D16	8,000	556	1.56	6,939
Total Weight					25,733 (1715 kg/m)

- 2. CONCRETE V=122.25m³ (8.15m³/m)
- 3. LEAN CONCRETE V= 14.55m³ (0.97m³/m)
- 4. BROKEN STONE V= 29.10m³ (1.94m³/m)

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	ORIGINAL SCALE	DWG. No
Detail of Riprap	AS SHOWN	81



DETAIL OF CROSS SECTION
SCALE 1:100

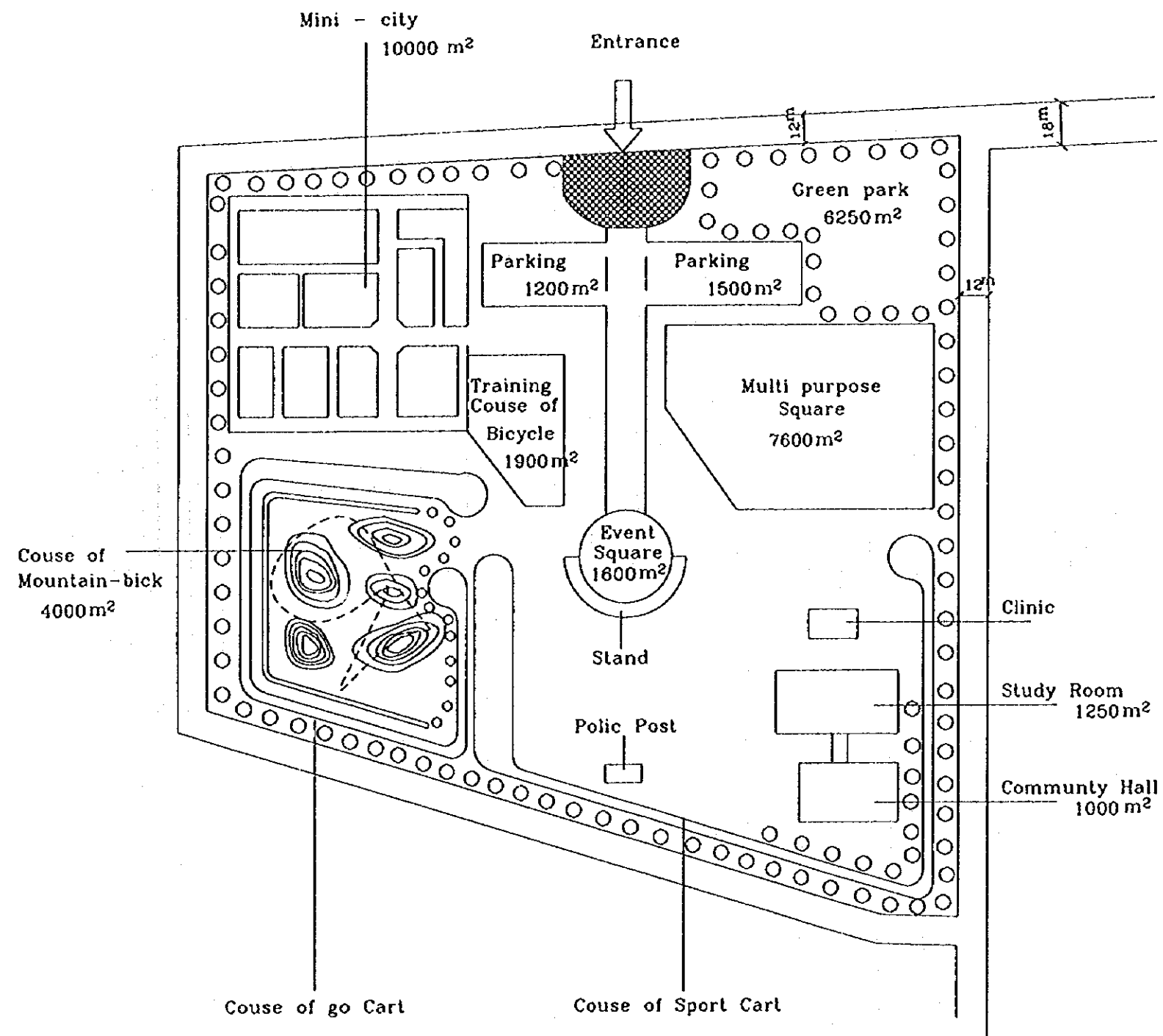
CROSS SECTION A - A
SCALE 1:100

Quantity for per meter

Item	Quantity (m ³)
Concrete (class B)	0.216
Stone	8.25

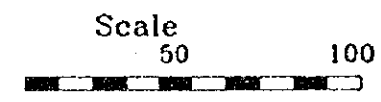
IV. TRAFFIC PLAZA

SOCIALIST REPUBLIC OF VIET NAM		
THE FEASIBILITY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	GRAPHICAL SCALE	DWG. No
Plan of Road Safety Park	AS SHOWN	82

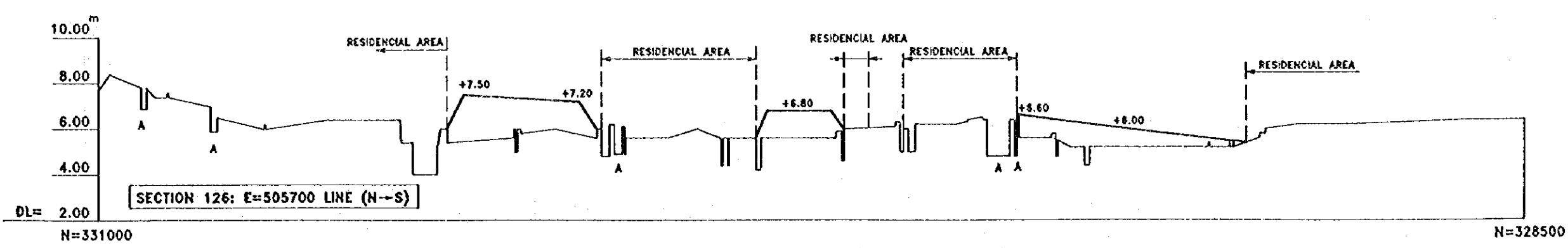
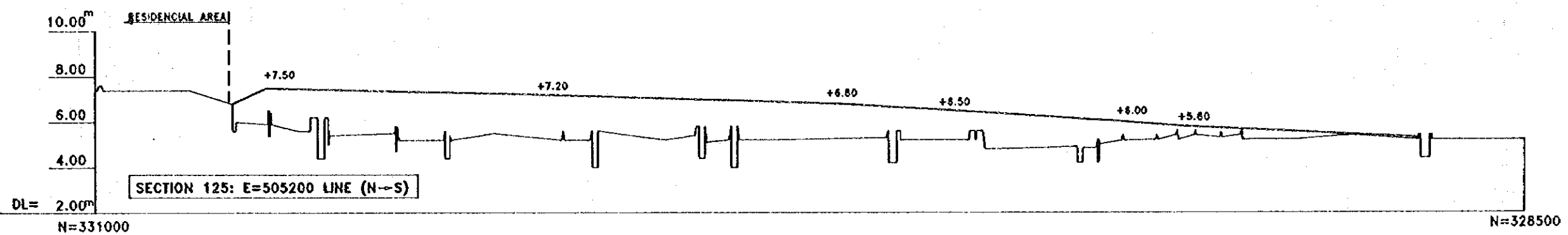
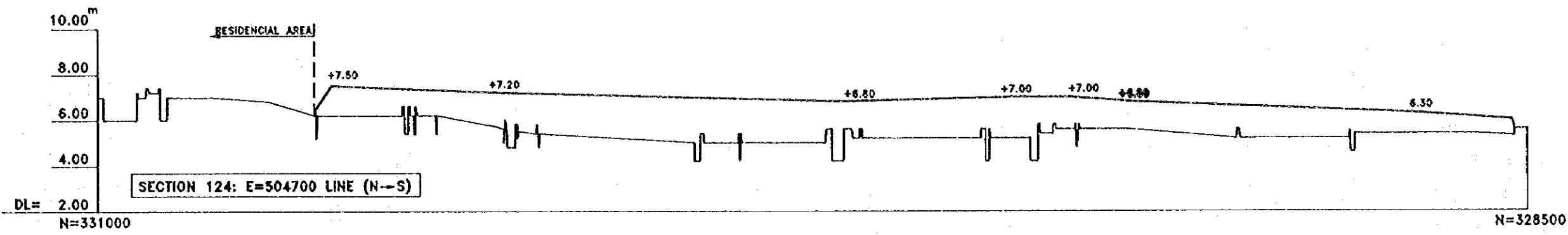
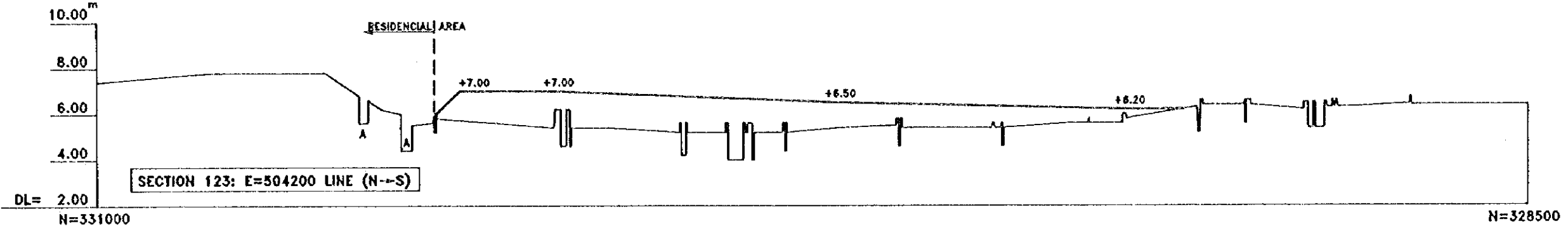
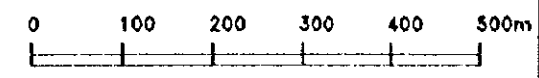
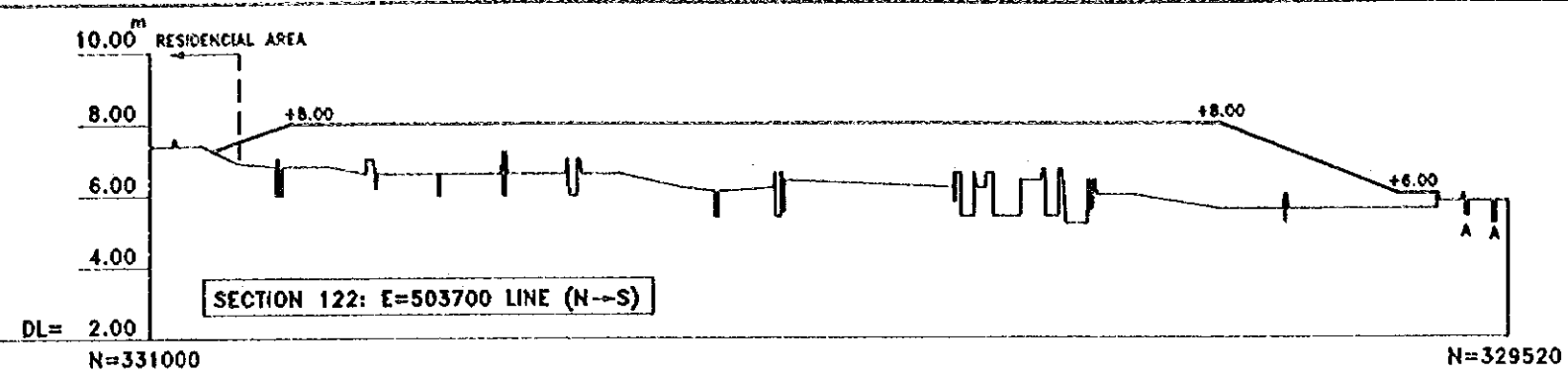


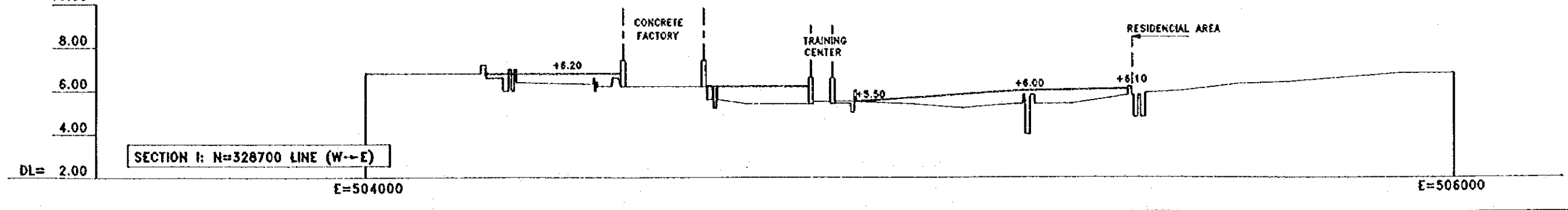
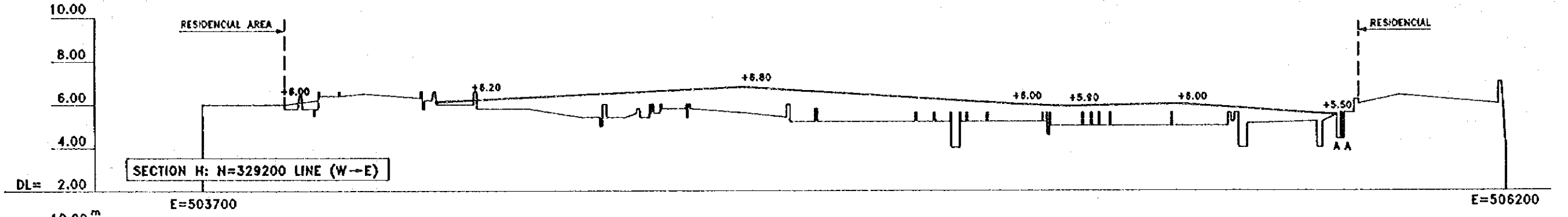
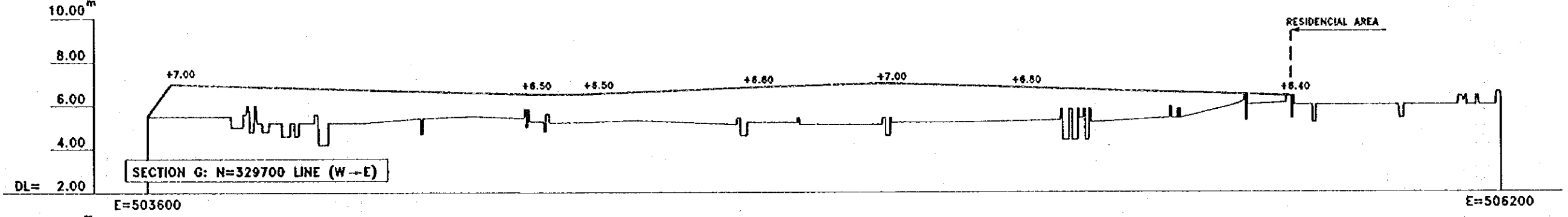
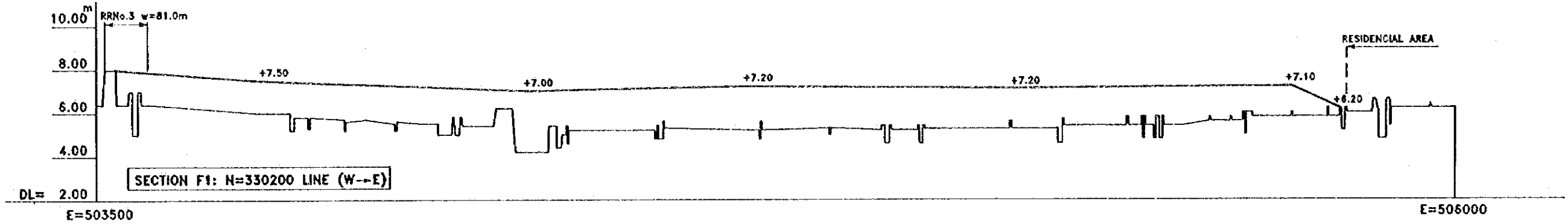
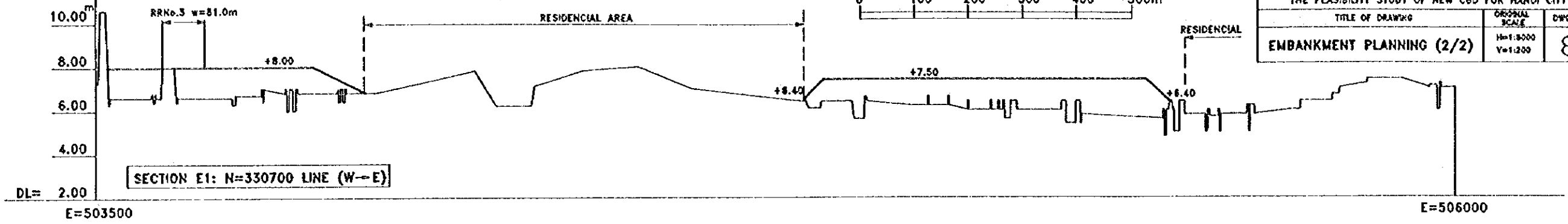
Total Area
A = 8.79 ha

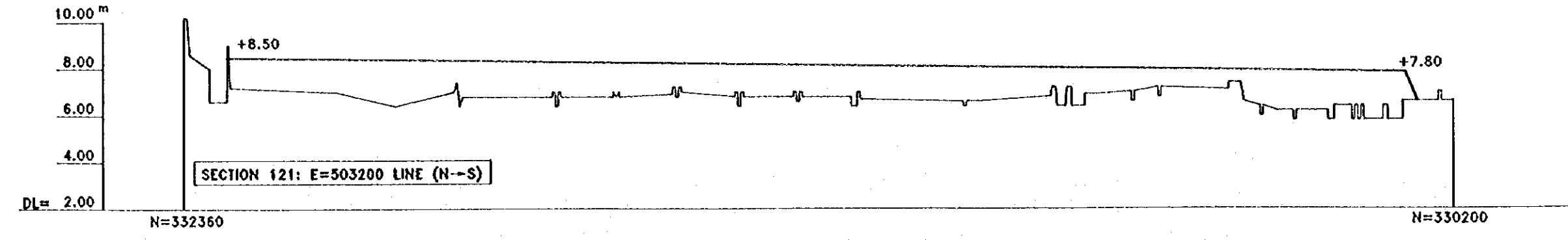
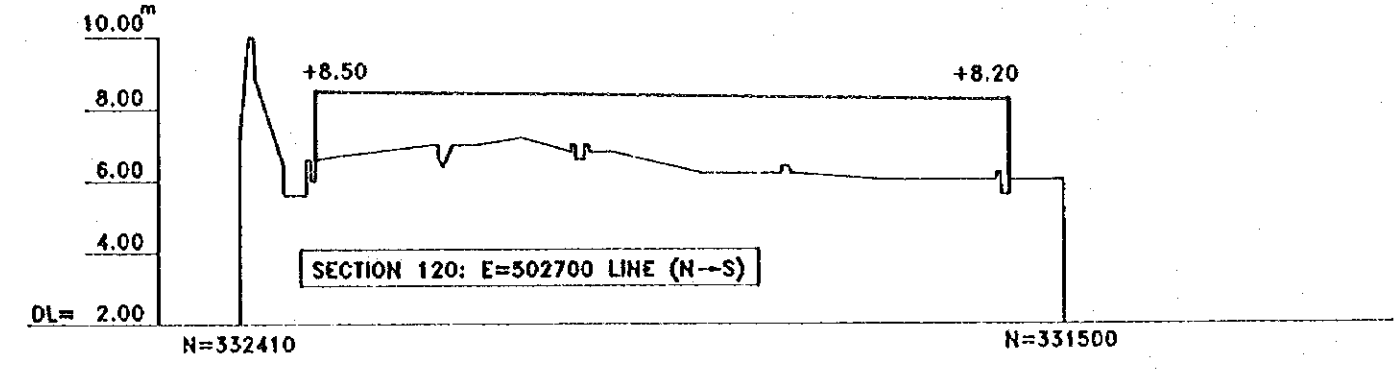
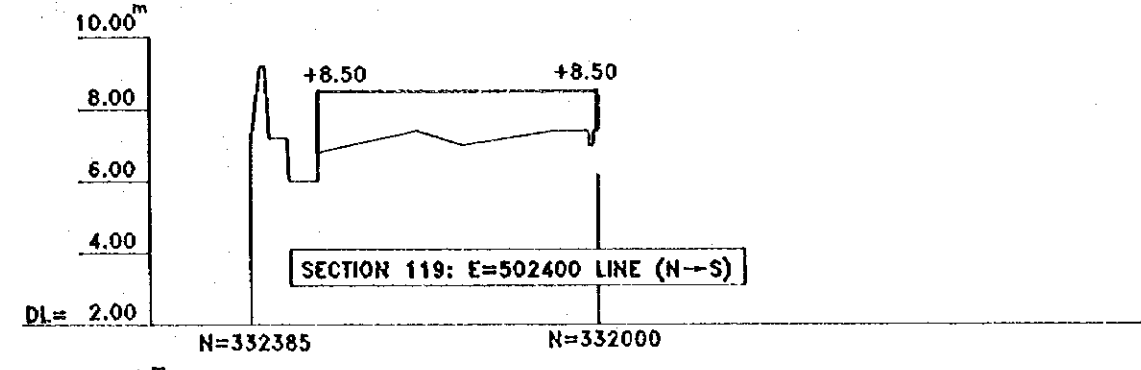
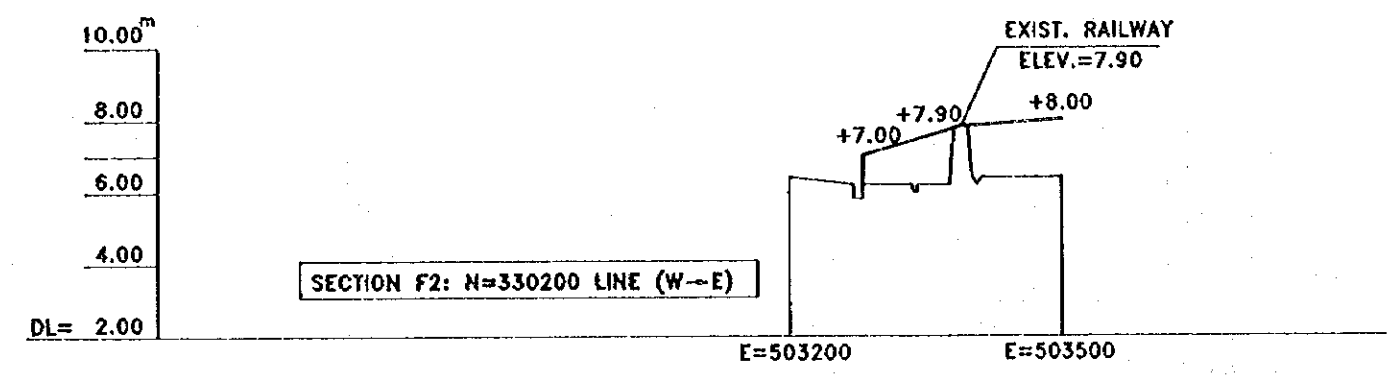
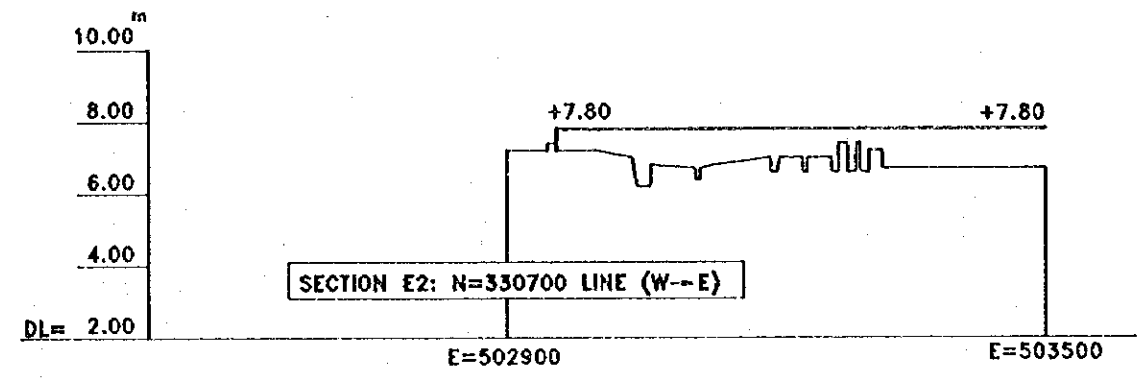
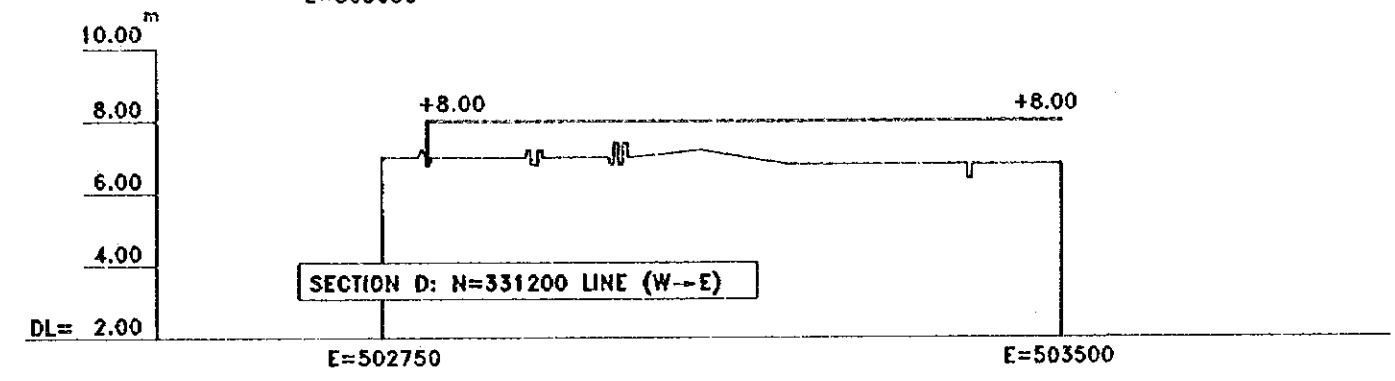
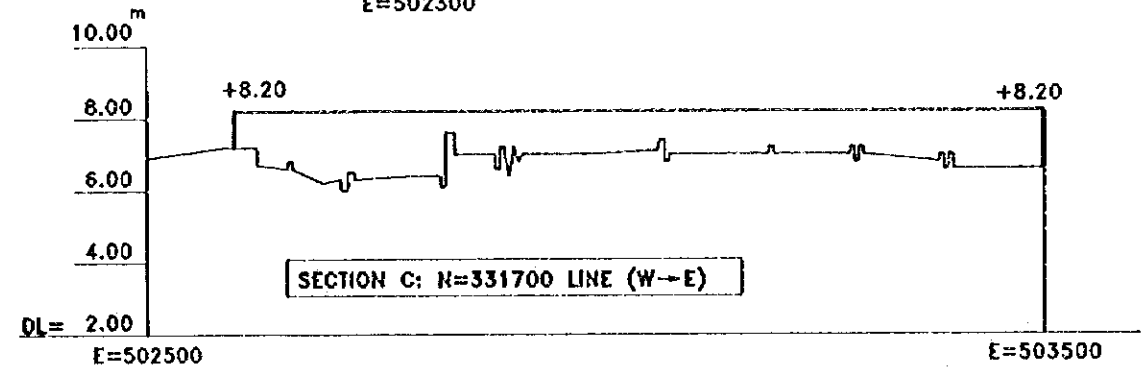
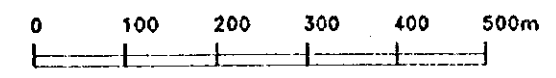
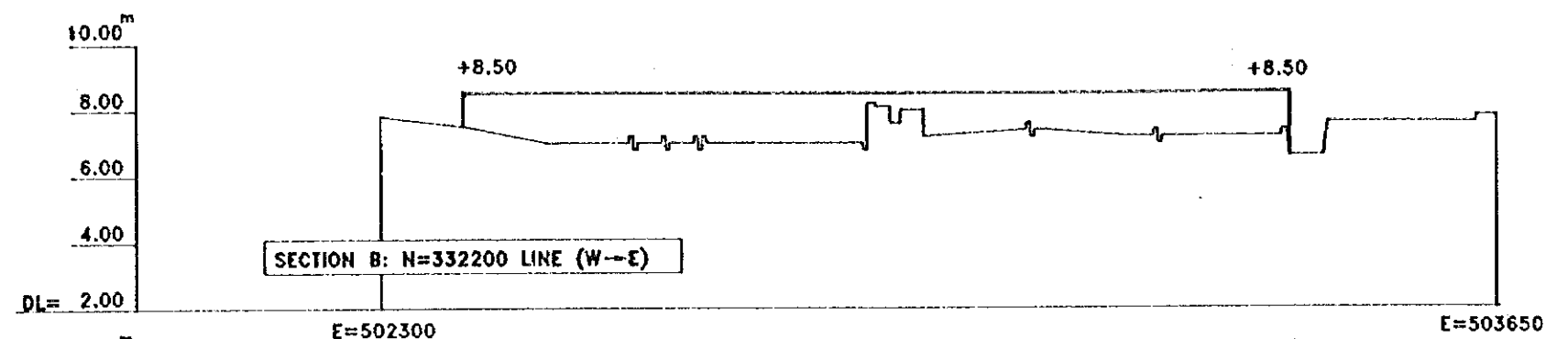
Item	Area (m ²)
Green park	6250
Mini-city	10000
Parking	2700
Training Course	1900
Multi Purpose Sq.	7600
Course of Mount-bick	4000
Community Hall	1000
Study Room	1250
Event Square	1600
Other	41350
Road	10250
Total	87900



SOCIALIST REPUBLIC OF VIETNAM THE FEASIBILITY STUDY OF NEW CBD FOR HANOI CITY		
TITLE OF DRAWING	GRAPHICAL SCALE	DWG. No.
EMBANKMENT PLANNING (1/2)	H=1:8000 V=1:200	83







JICA

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