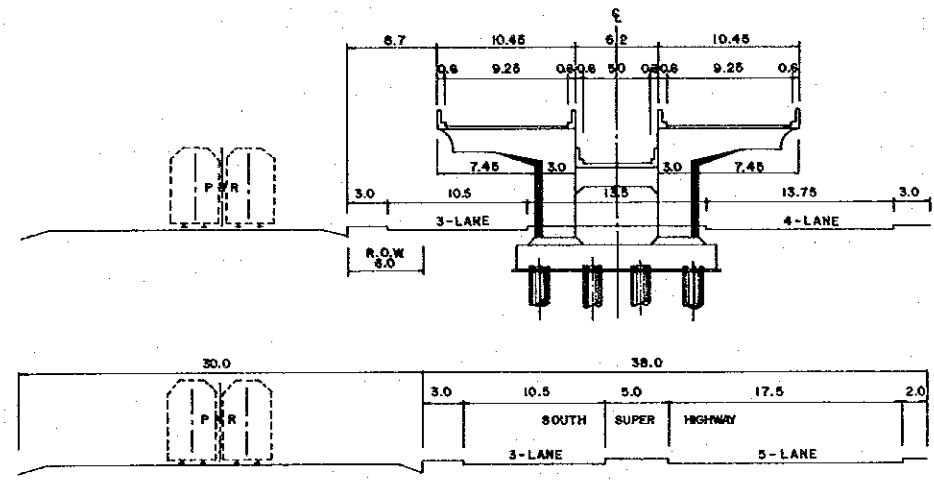
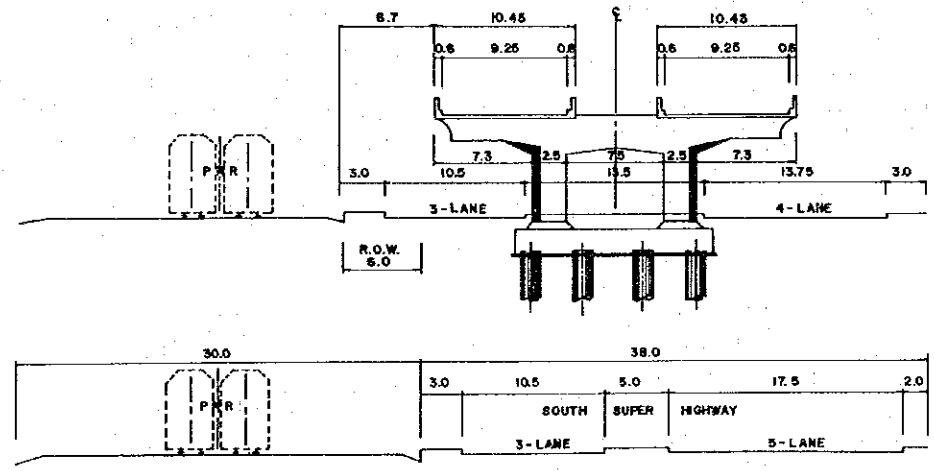


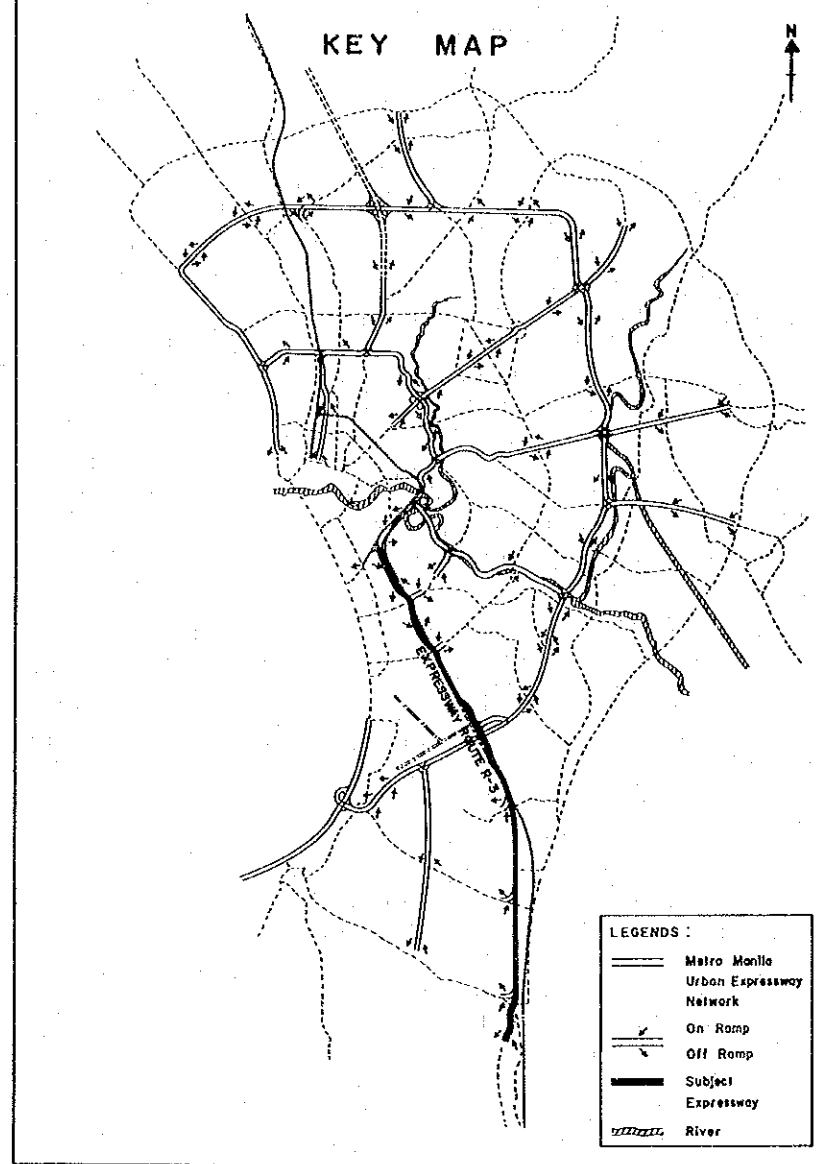
③ - ③ SECTION



② - ② SECTION



① - ① SECTION



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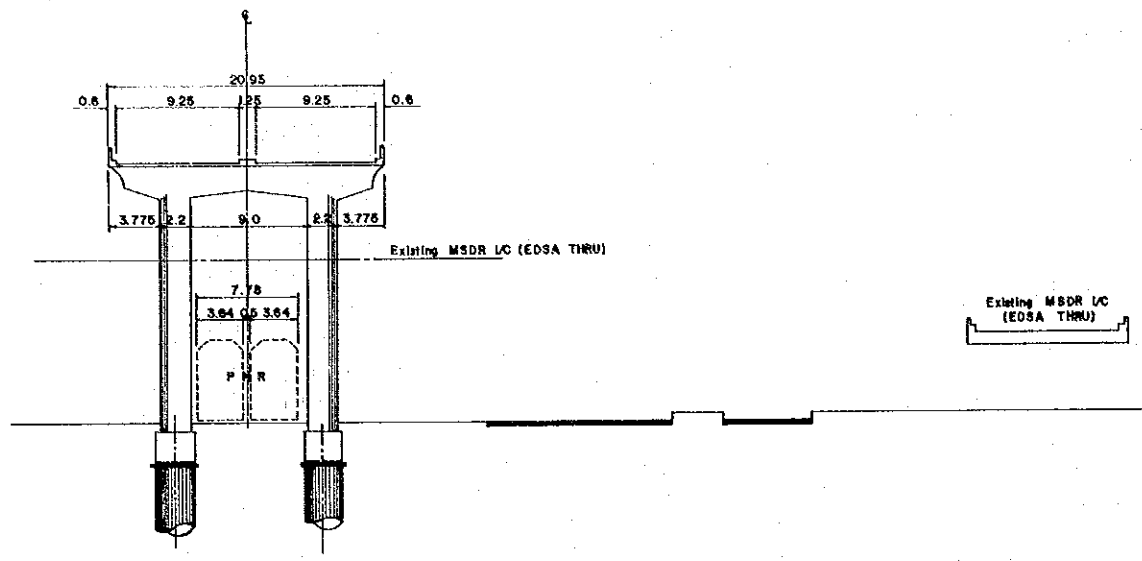
DEPARTMENT OF PUBLIC
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**FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM**

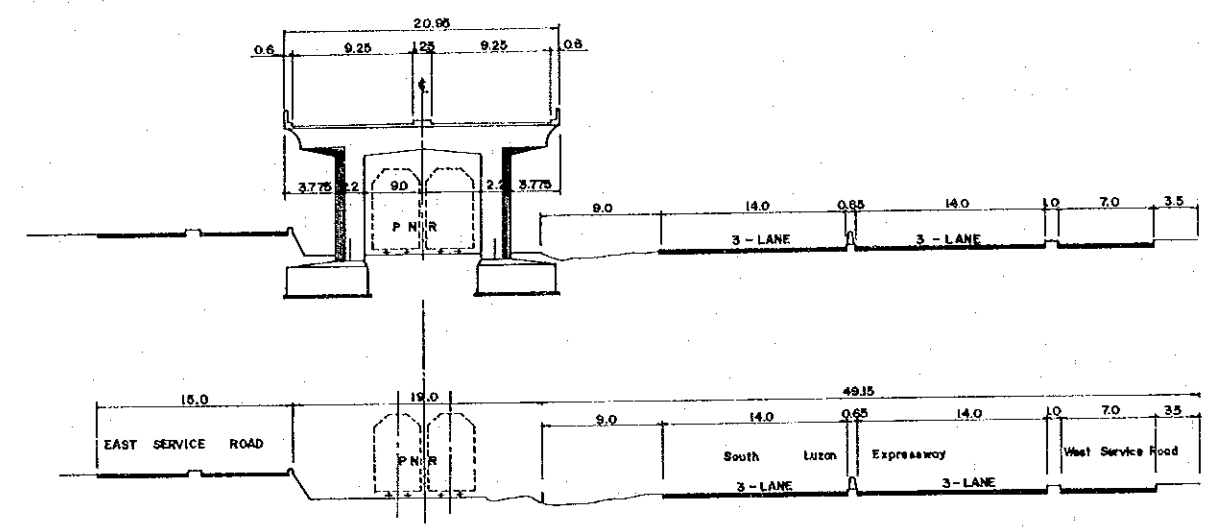
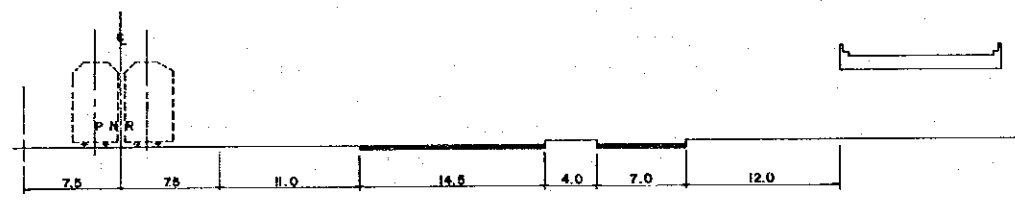
**EXPRESSWAY ROUTE R-3
TYPICAL CROSS SECTION - 1**

SCALE
1 : 300

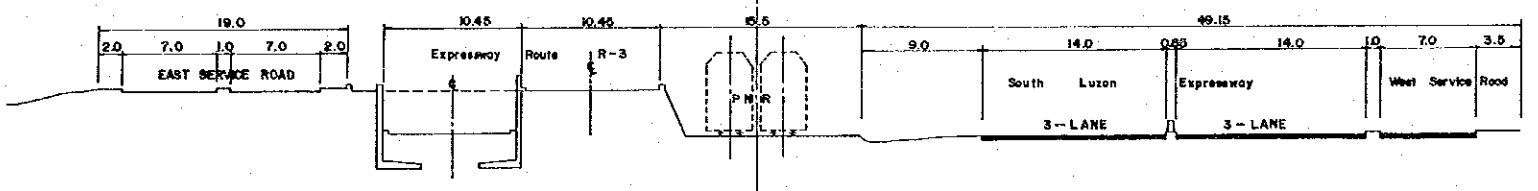
DWG. No.
2 - 1



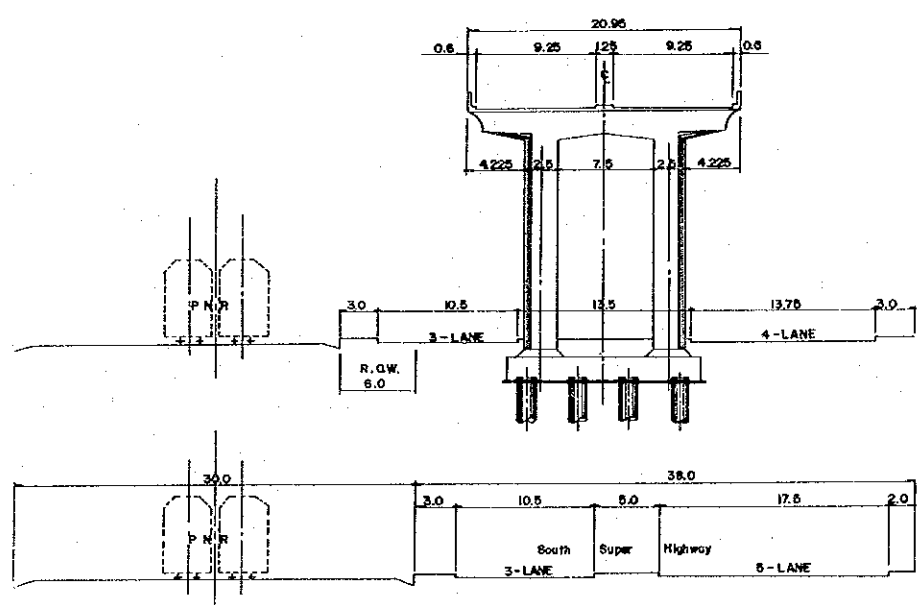
5 - 5 SECTION



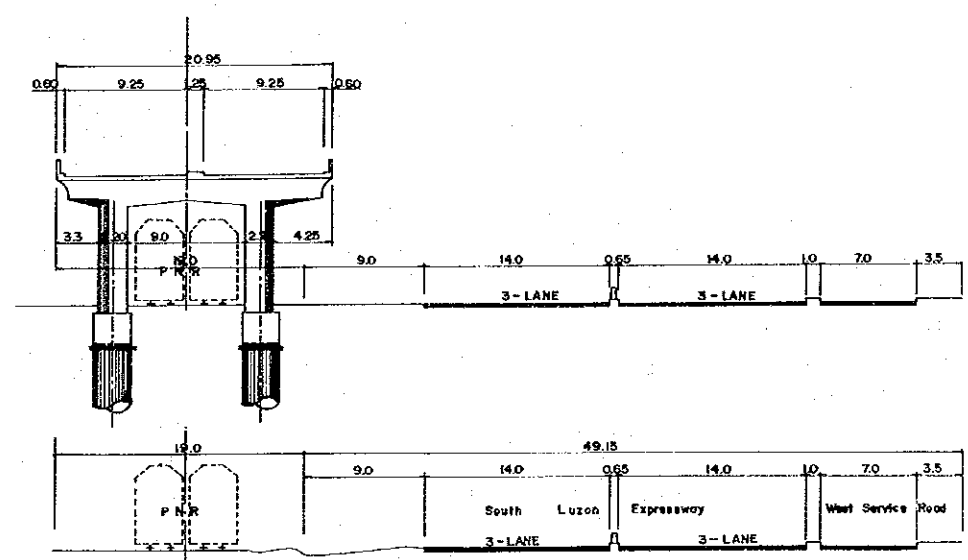
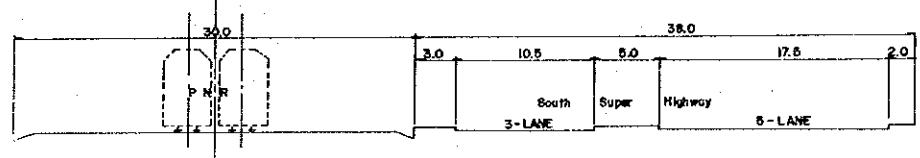
8 - 8 SECTION



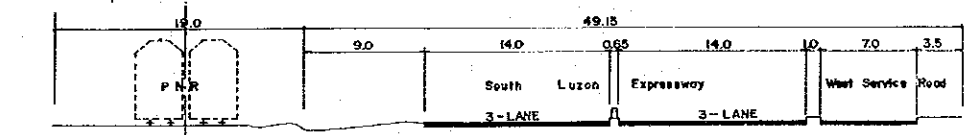
7 - 7 SECTION



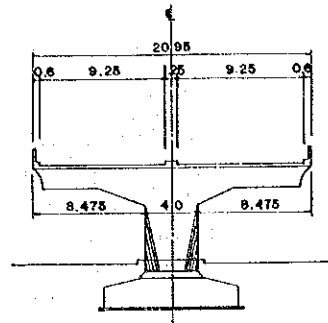
4 - 4 SECTION



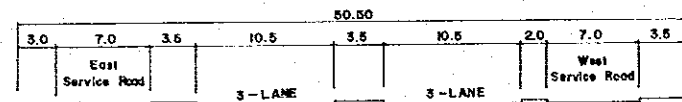
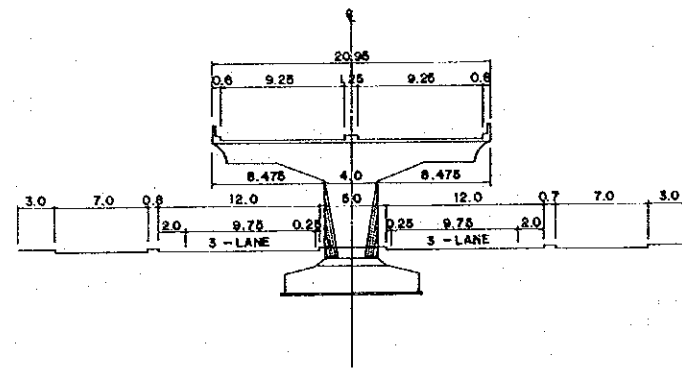
6 - 6 SECTION



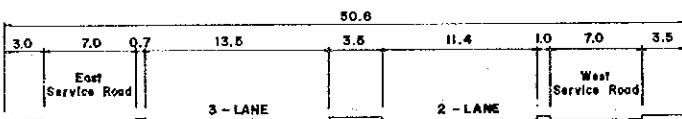
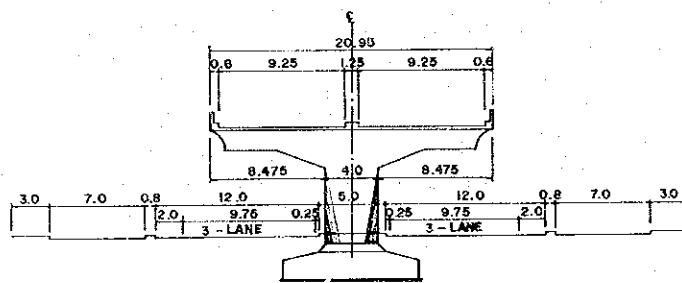
 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	EXPRESSWAY ROUTE R-3 TYPICAL CROSS SECTION-2	SCALE	DWG. No.
					1 : 300	2 - 2



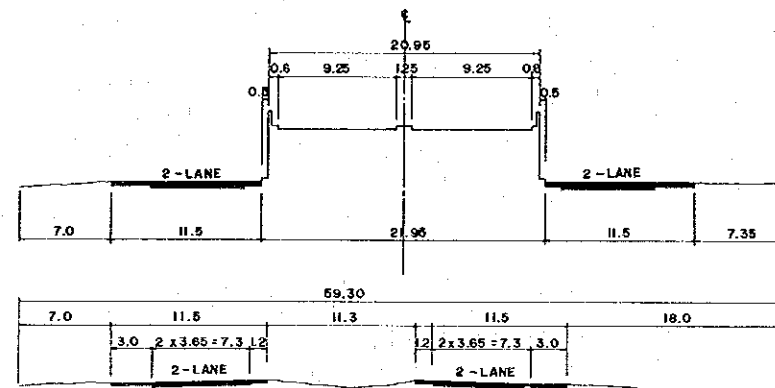
II - II SECTION






10 - 10 SECTION

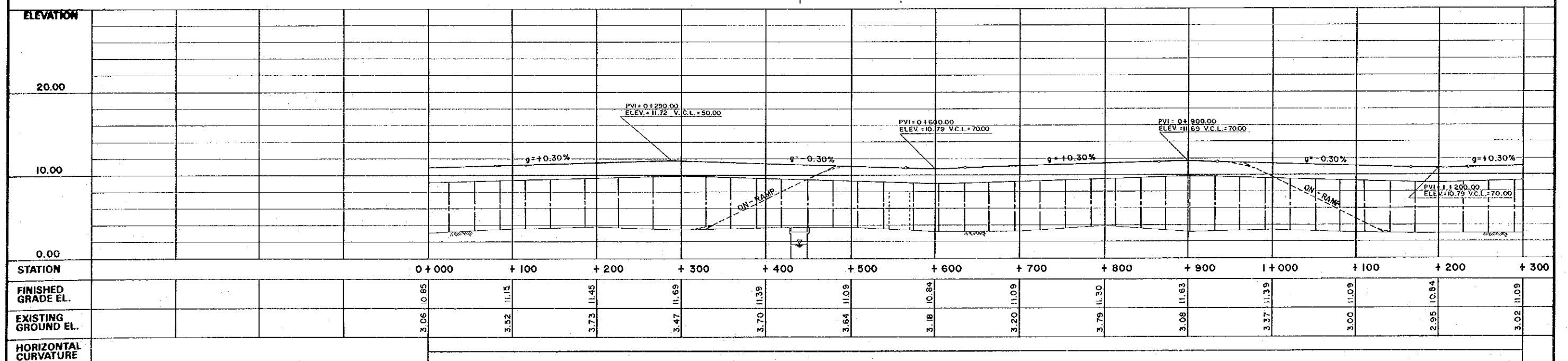
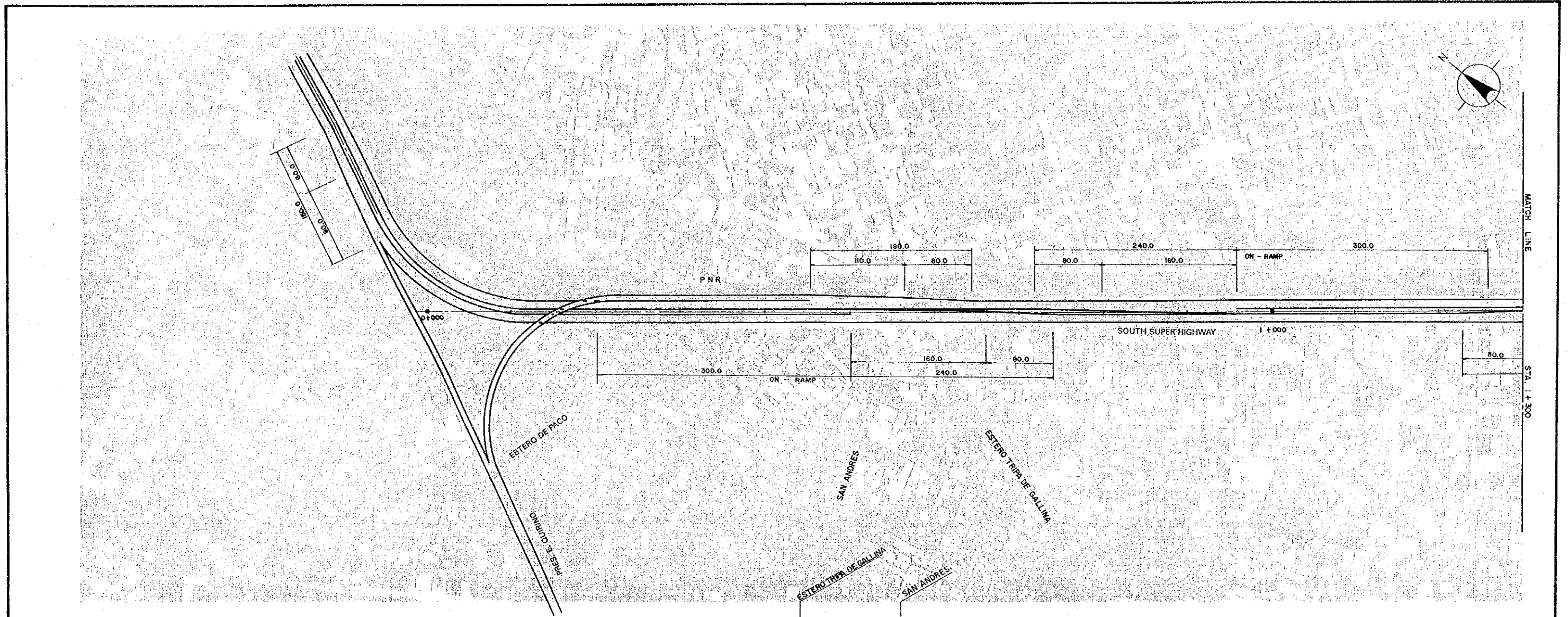


9 - 9 SECTION

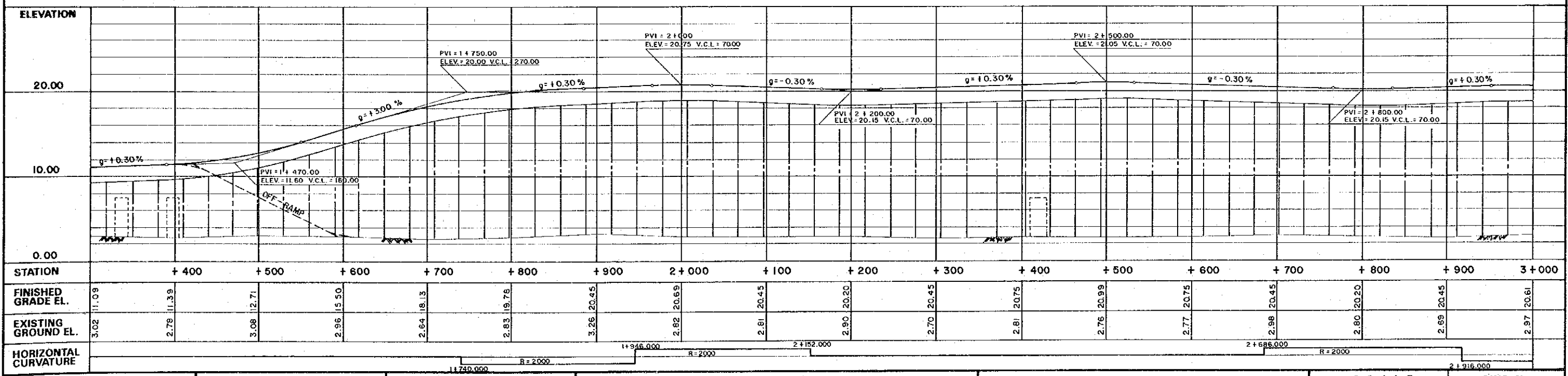
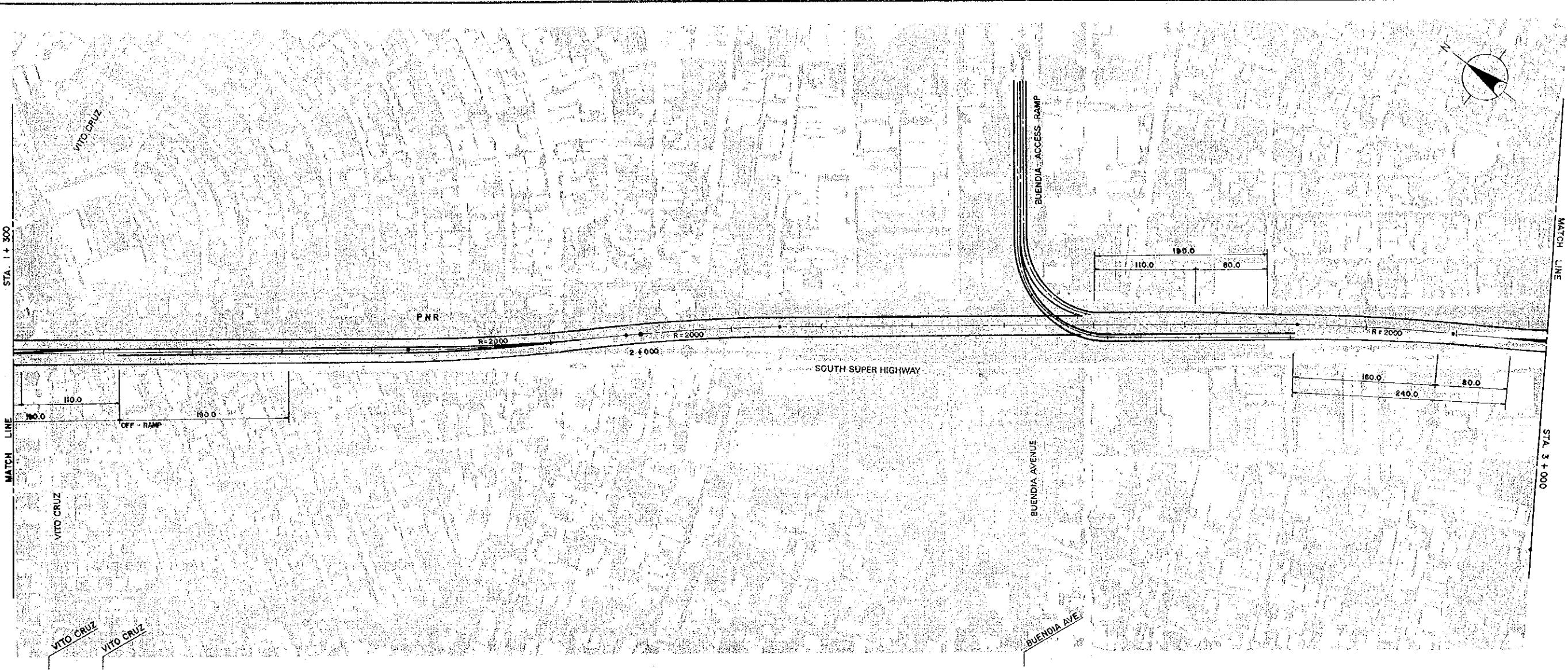


12 - 12 SECTION

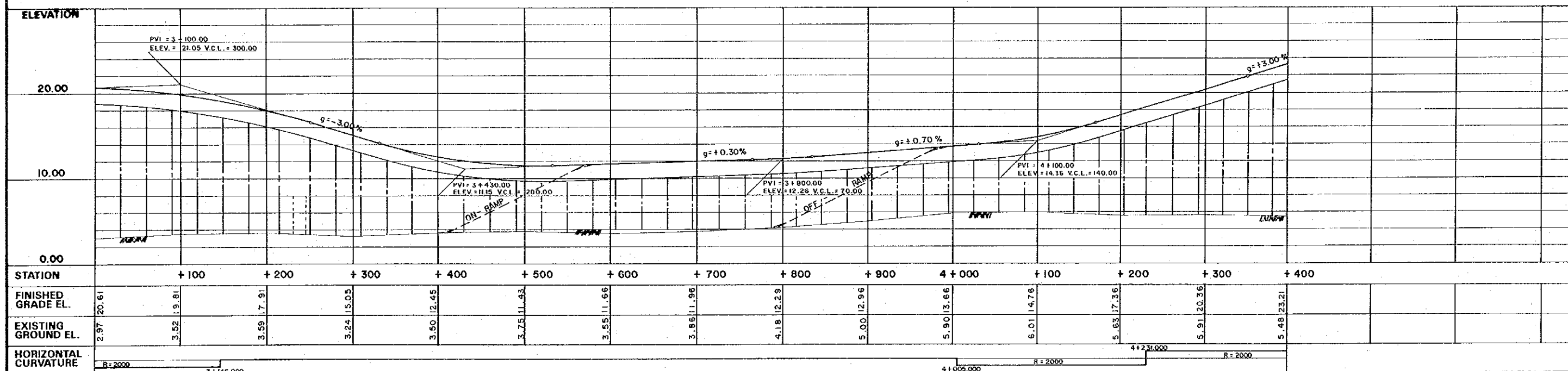
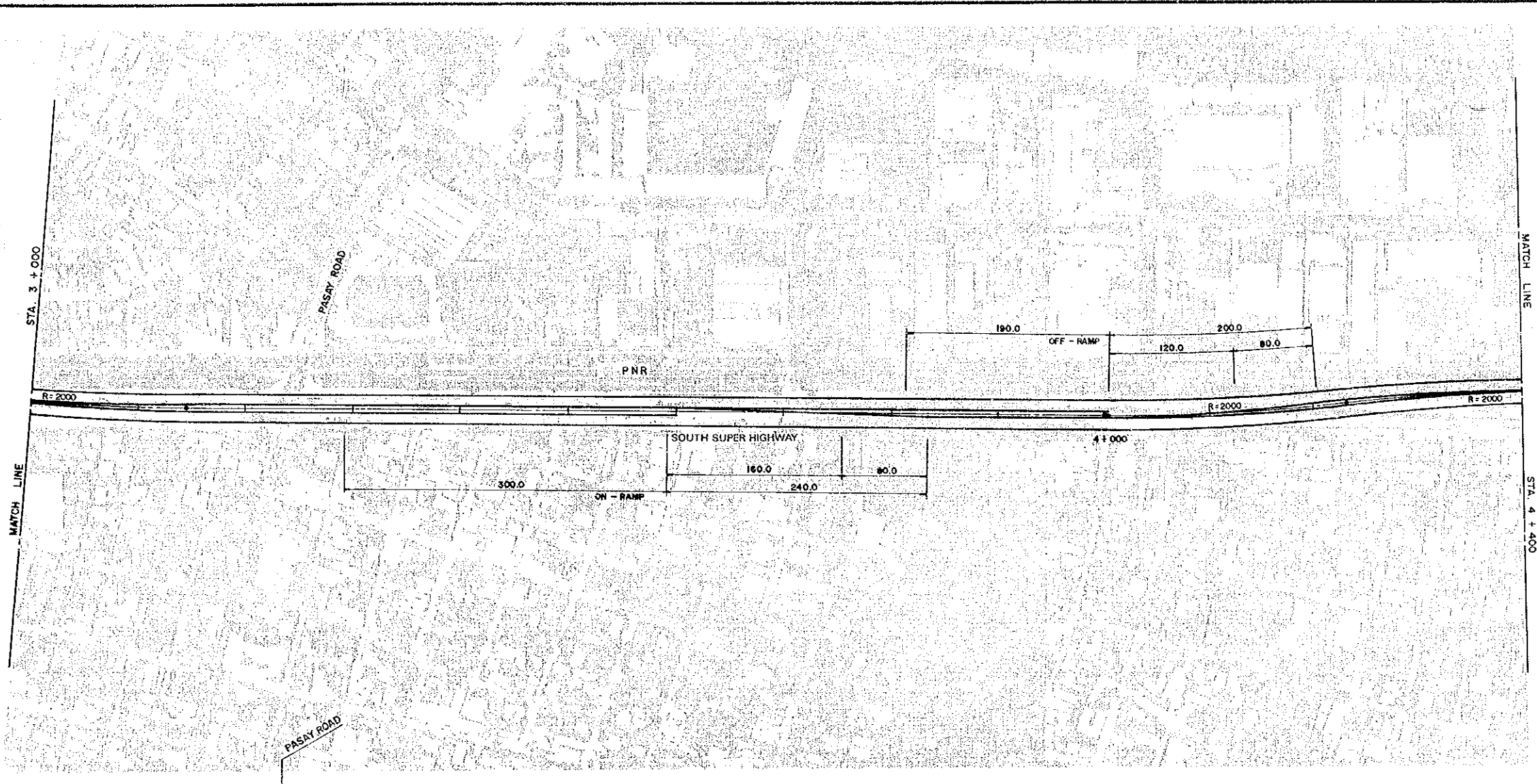
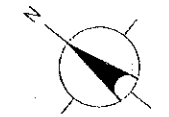
 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	EXPRESSWAY ROUTE R-3 TYPICAL CROSS SECTION -3	SCALE	DWG. No.
					1 : 300	2 - 3



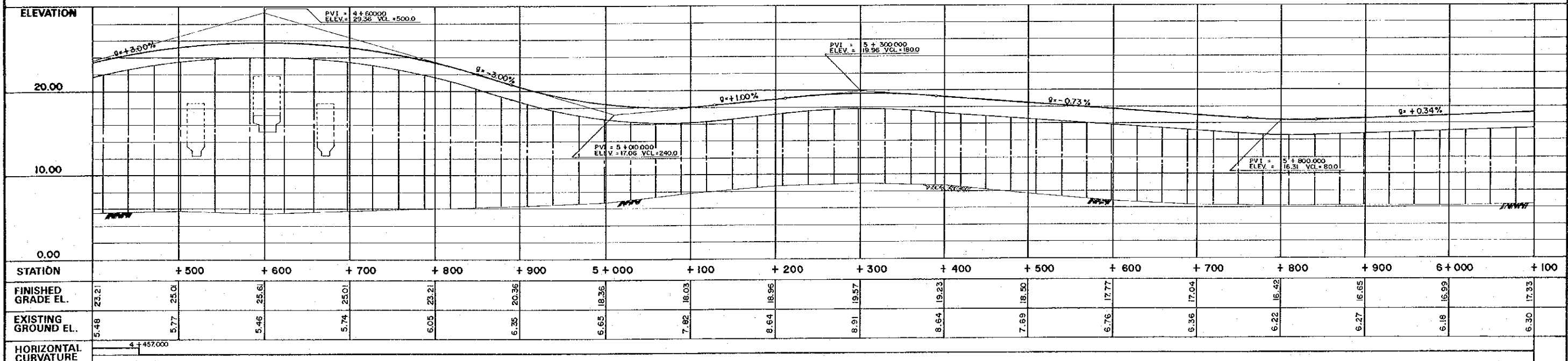
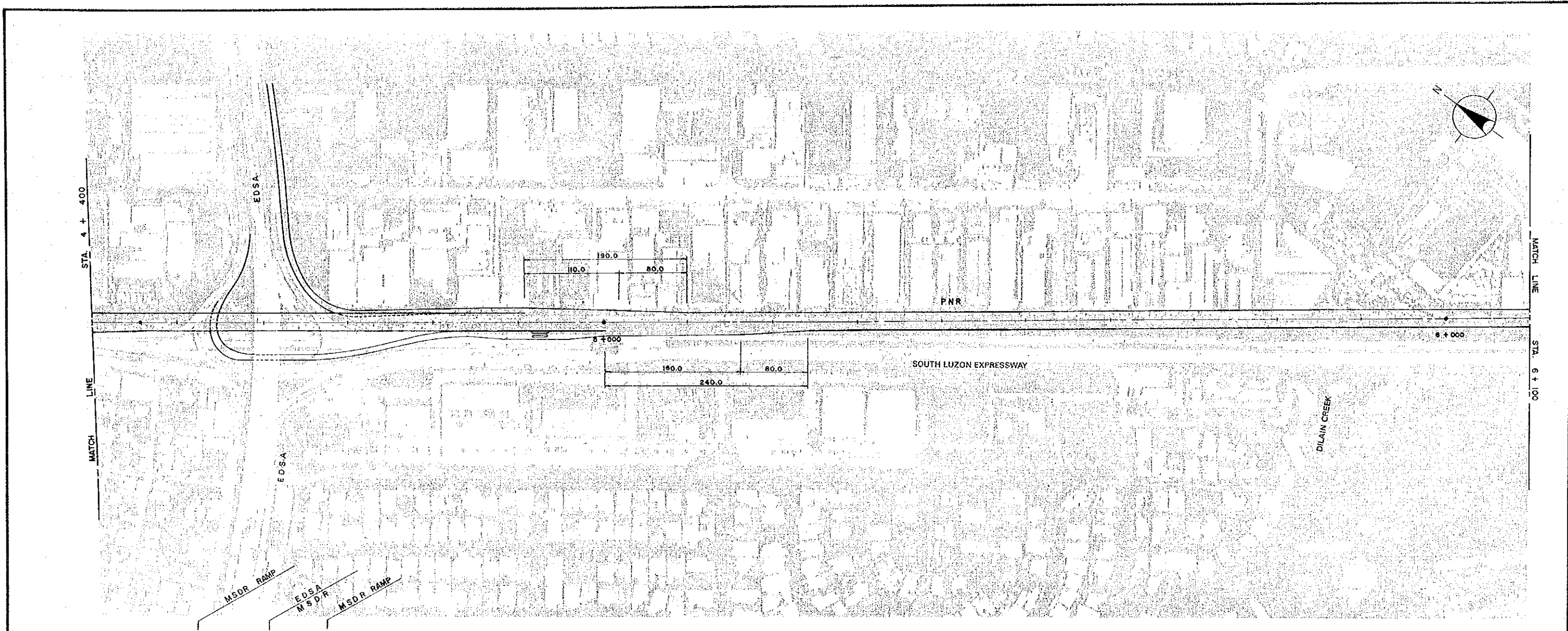
 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 0+000 - STA. 1+300 R - 3	SCALE	DWG. No.
					HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2 - 4



 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 1 + 300 - STA. 3 + 000 R - 3	SCALE	DWG. No.
					HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2 - 5



 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 3+000 - STA. 4+400 R - 3	SCALE HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	DWG. No. 2 - 6



STATION	+ 500	+ 600	+ 700	+ 800	+ 900	5 + 000	+ 100	+ 200	+ 300	+ 400	+ 500	+ 600	+ 700	+ 800	+ 900	6 + 000	+ 100
FINISHED GRADE EL.	23.21	25.01	25.61	23.21	20.36	18.36	18.03	18.96	19.57	19.23	18.50	17.77	17.04	16.42	16.65	16.99	17.33
EXISTING GROUND EL.	5.48	5.77	5.46	6.05	6.35	6.65	7.82	8.64	8.91	8.64	7.69	6.76	6.36	6.22	6.27	6.18	6.50
HORIZONTAL CURVATURE	4 + 457.000																

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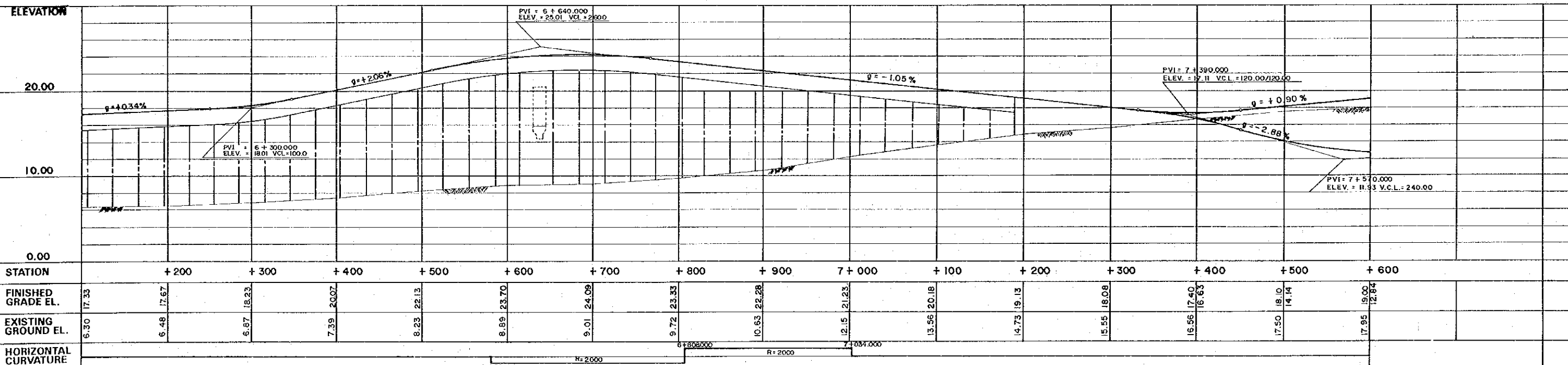
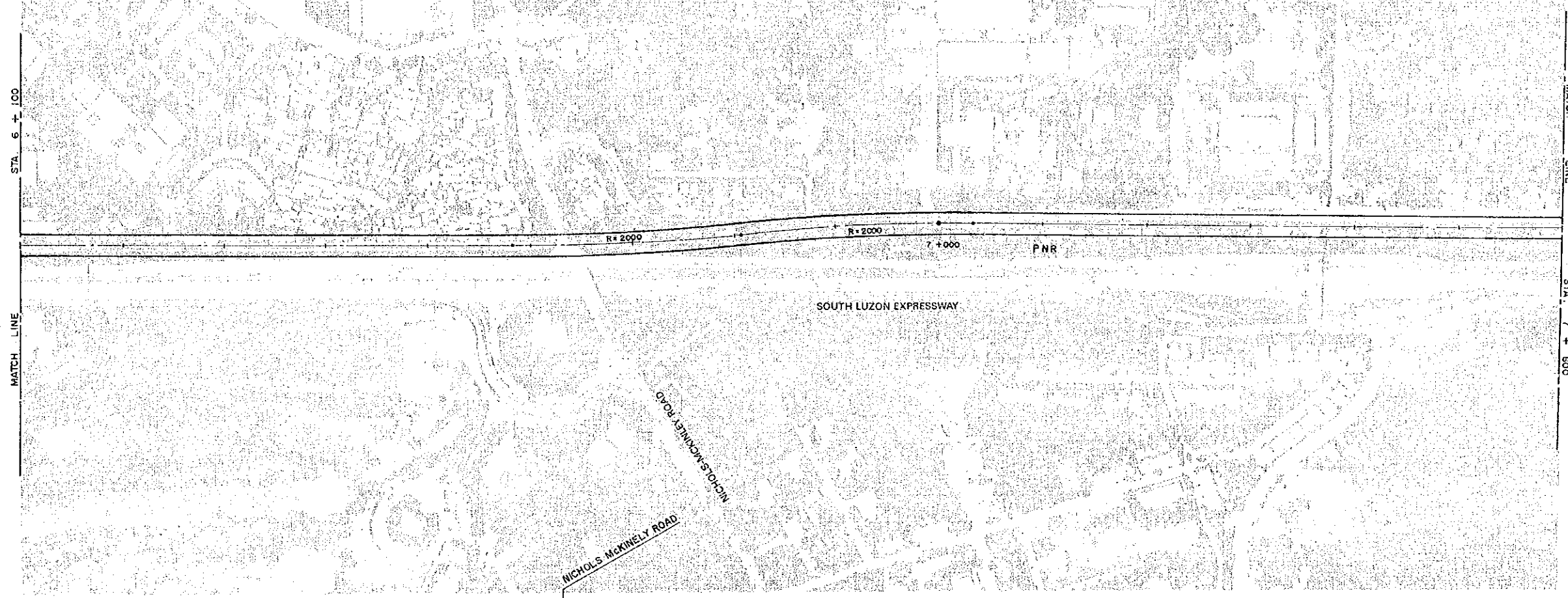
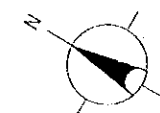
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Republic of the Philippines

**FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM**

PLAN AND PROFILE
ROUTE NAME STA. 4 + 400 - STA. 6 + 100
R - 3

SCALE
HORIZONTAL : 1 : 2,500
VERTICAL : 1 : 250

DWG. No.
2-7



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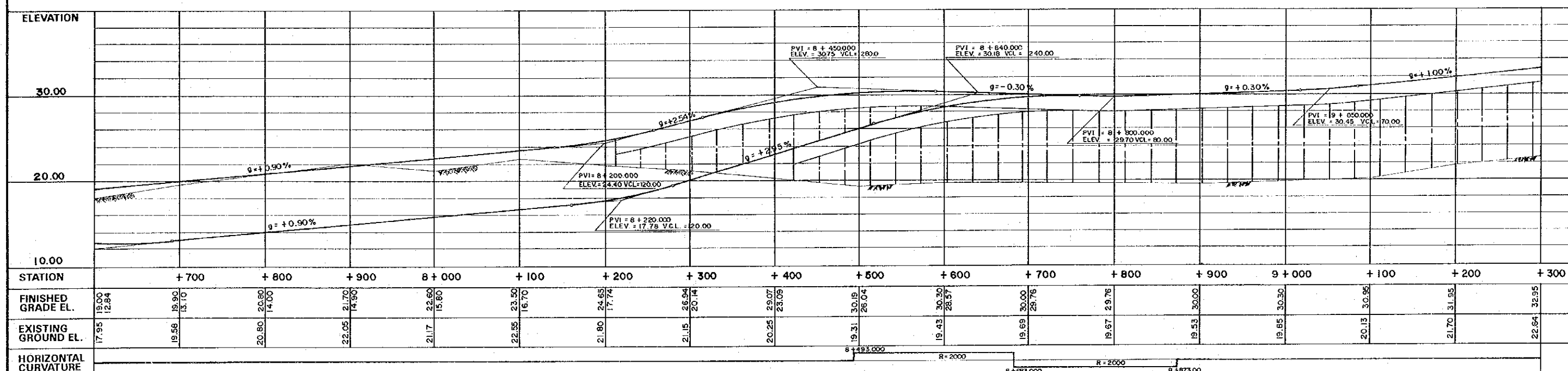
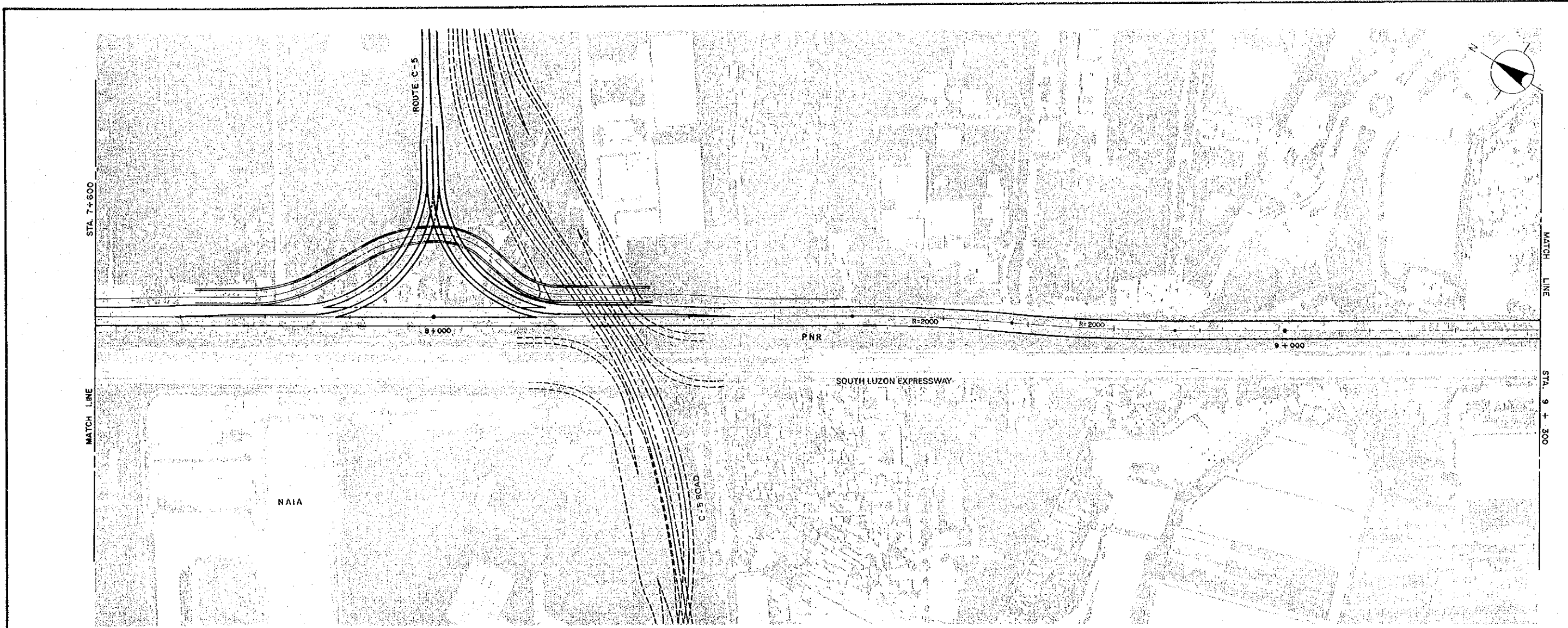
DEPARTMENT OF PUBLIC
WORKS AND HIGHWAYS
Republic of the Philippines

**FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM**

PLAN AND PROFILE
ROUTE NAME STA. 6 + 100 - STA. 7 + 600
R - 3

SCALE
HORIZONTAL : 1 : 2,500
VERTICAL : 1 : 250

DWG. No.
2-8



ELEVATION																		
30.00																		
20.00																		
10.00																		
STATION	+700	+800	+900	8+000	+100	+200	+300	+400	+500	+600	+700	+800	+900	9+000	+100	+200	+300	
FINISHED GRADE EL.	19.00 12.84	19.90 13.10	20.80 14.00	21.70 14.90	22.60 15.80	23.50 16.70	24.65 17.74	26.54 20.14	29.07 23.09	30.19 26.04	30.30 28.57	30.00 28.76	29.76	30.00	30.30	30.95	31.95	32.95
EXISTING GROUND EL.	17.95	19.58	20.80	22.05	21.17	22.85	21.80	21.15	20.25	19.31	19.43	19.69	19.67	19.53	19.65	20.13	21.70	22.64
HORIZONTAL CURVATURE	<div style="display: flex; justify-content: space-around; align-items: center;"> 8+493.000 R=2000 8+683.000 R=2000 8+873.000 </div>																	

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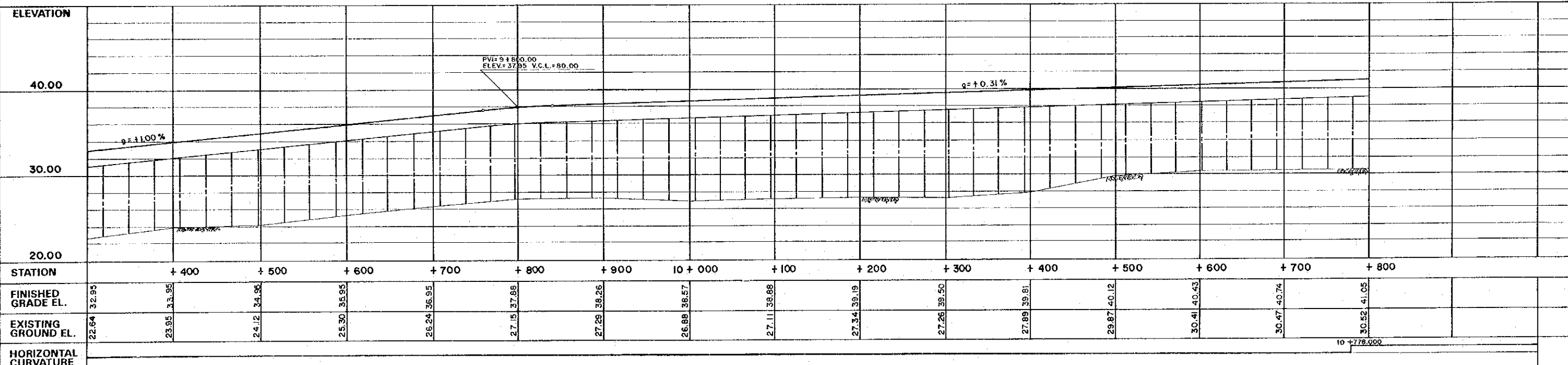
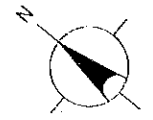
DEPARTMENT OF PUBLIC
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**FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM**

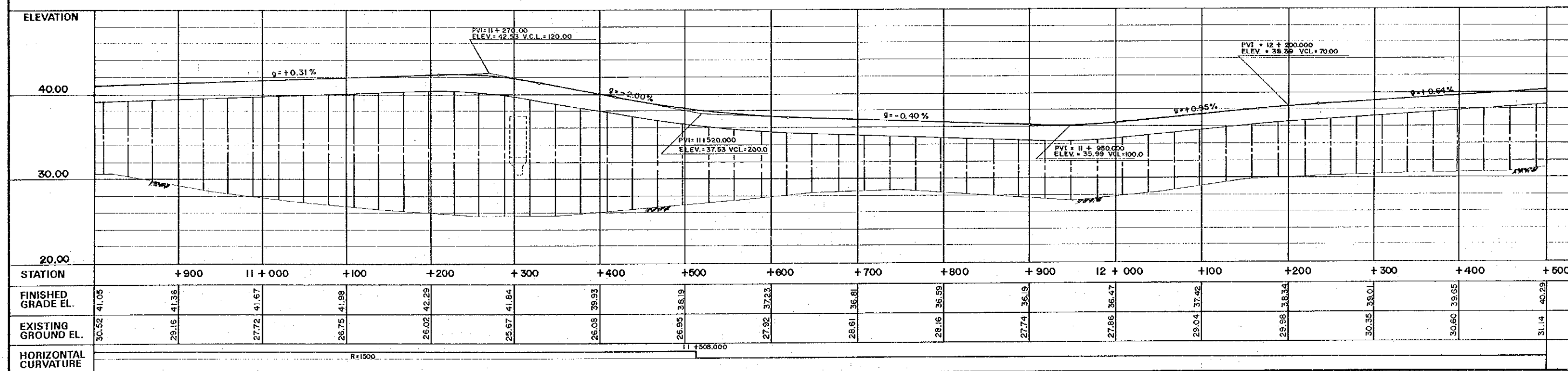
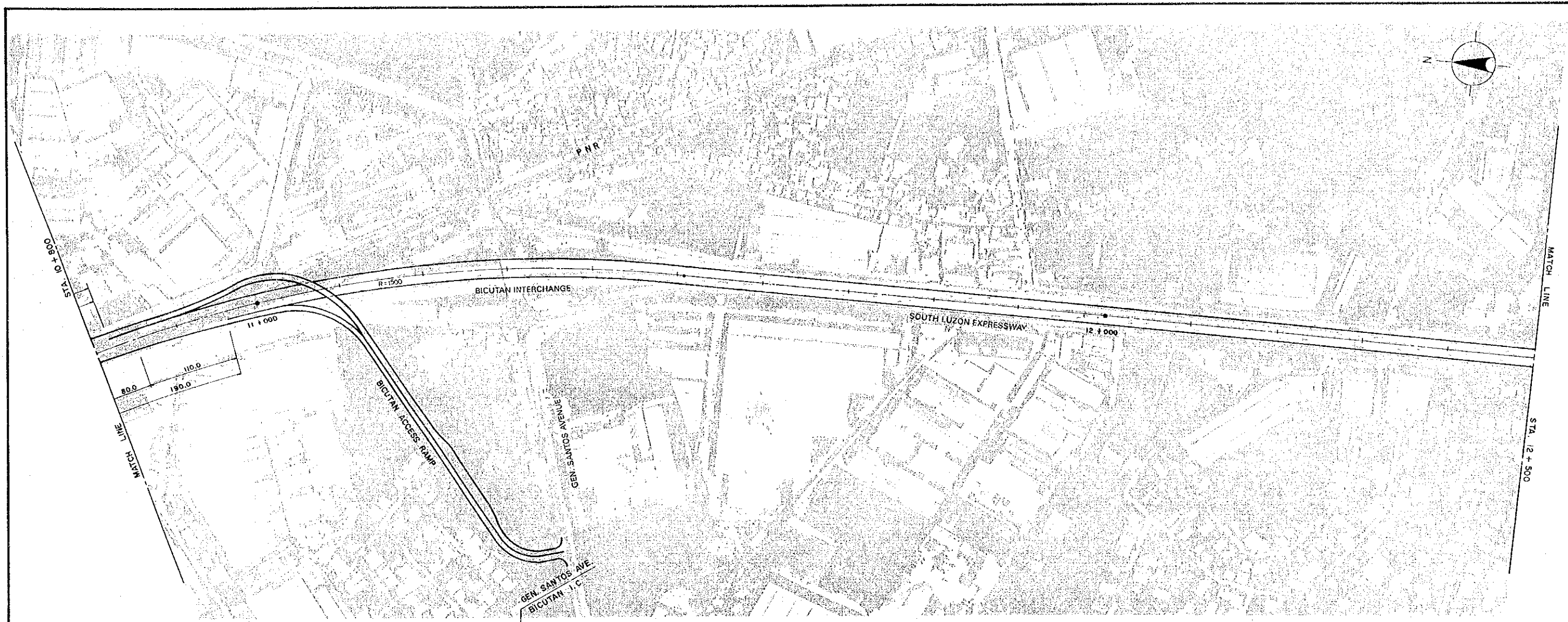
PLAN AND PROFILE
ROUTE NAME STA. 7 + 600 - STA. 9 + 300
R - 3

SCALE
HORIZONTAL : 1 : 2,500
VERTICAL : 1 : 250

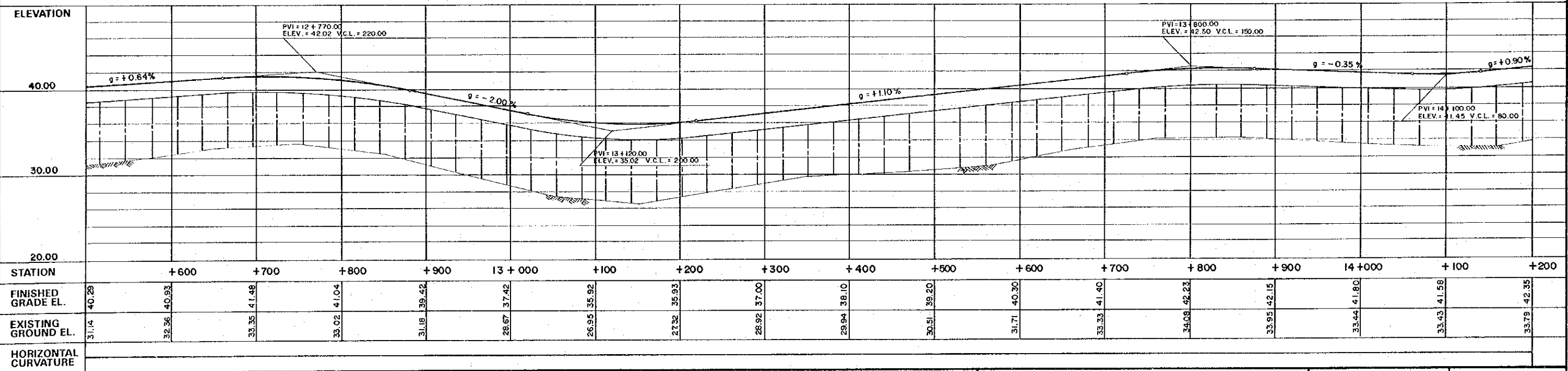
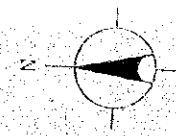
DWG. No.
2 - 9



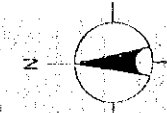
 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 9 + 300 - STA. 10 + 800 R - 3	SCALE	DWG. No.
					HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2 - 10



 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE	SCALE	DWG. No.
				ROUTE NAME STA. 10+800 - STA. 12+500 R - 3	HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2-11



 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 12 + 500 -- STA. 14 + 200 R - 3	SCALE	DWG. No.
					HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2 - 12

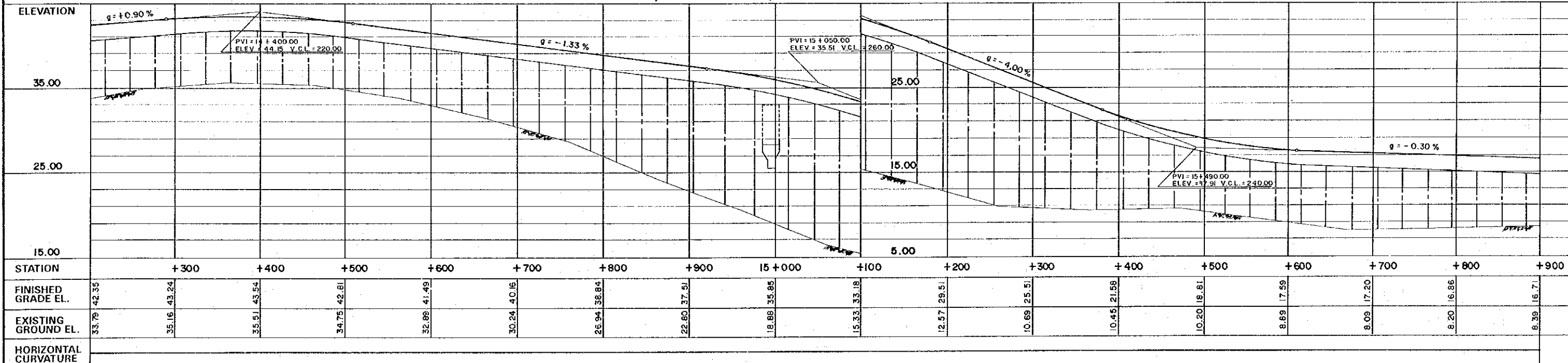
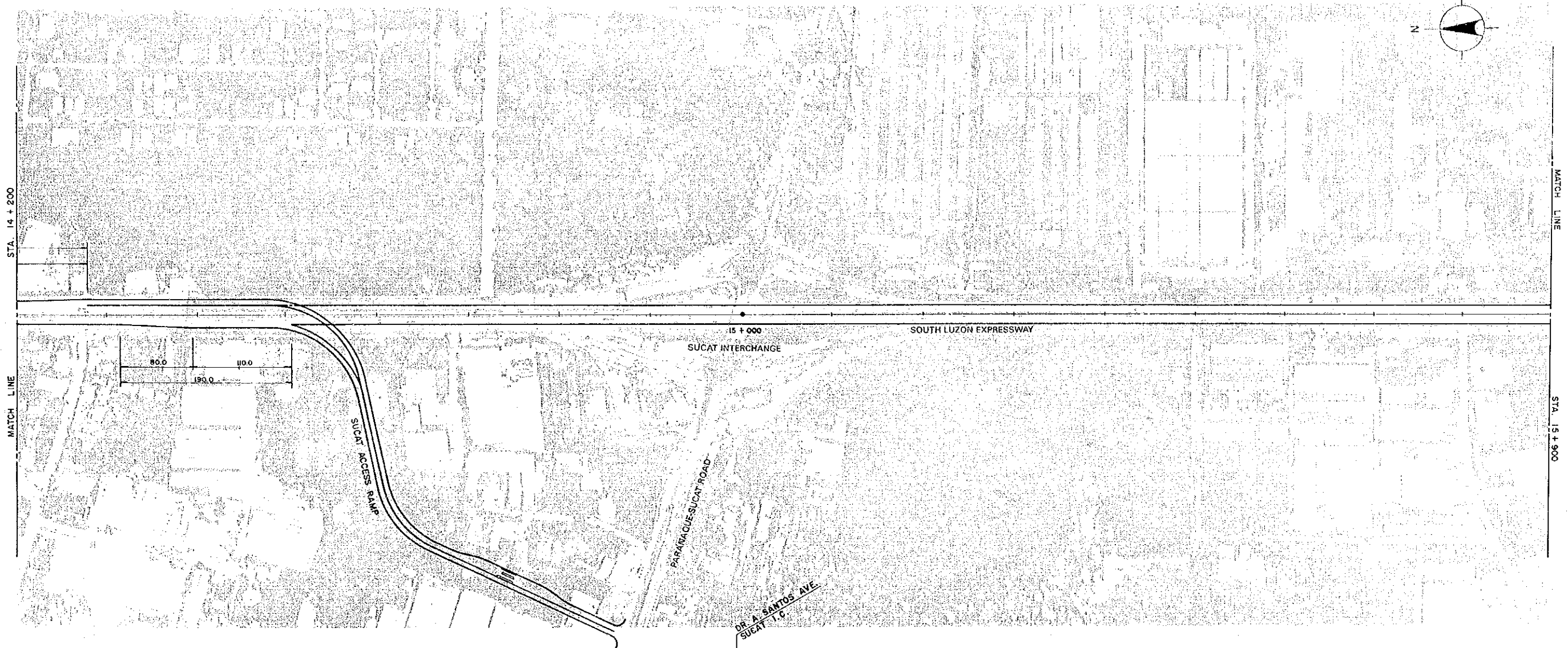


STA. 14 + 200

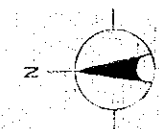
MATCH LINE

MATCH LINE

STA. 15 + 900



 KATAHIRA & ENGINEERS INTERNATIONAL	 JAPAN INTERNATIONAL COOPERATION AGENCY	 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS Republic of the Philippines	FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM	PLAN AND PROFILE ROUTE NAME STA. 14 + 200 -- STA. 15 + 900 R - 3	SCALE	DWG. No.
					HORIZONTAL : 1 : 2,500 VERTICAL : 1 : 250	2 - 13

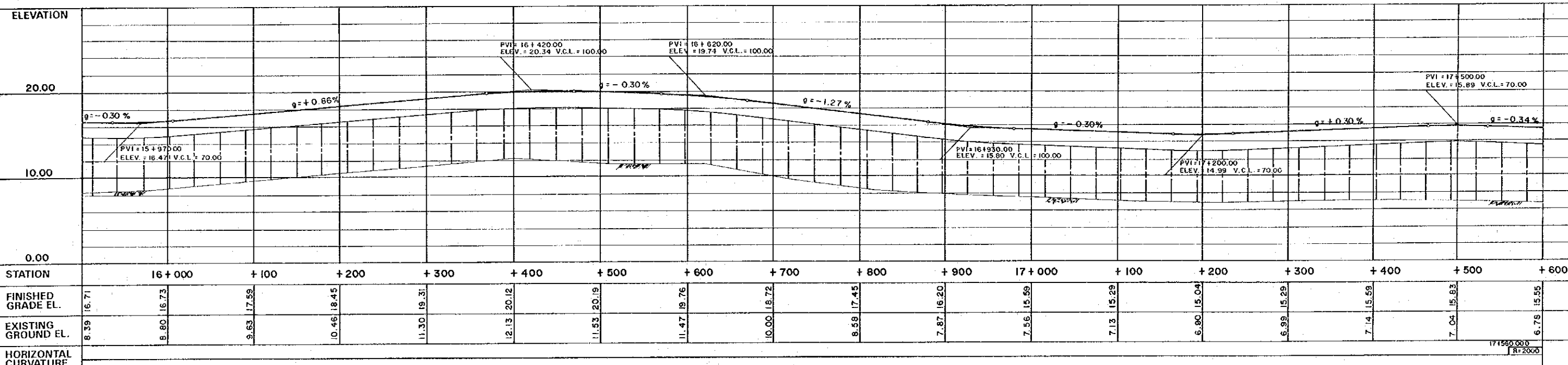
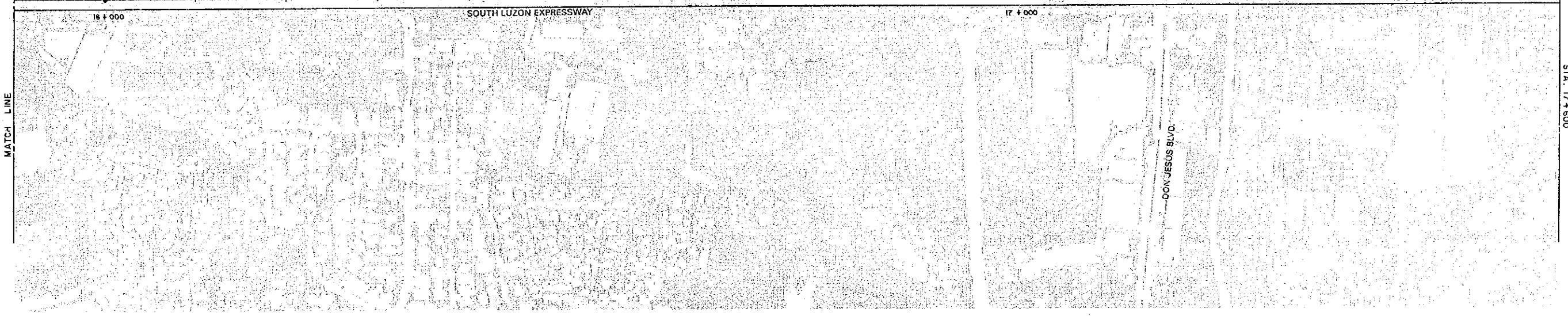


STA. 15 + 900

MATCH LINE

MATCH LINE

STA. 17 + 600



ELEVATION																		
20.00																		
10.00																		
0.00																		
STATION	16 + 000	+ 100	+ 200	+ 300	+ 400	+ 500	+ 600	+ 700	+ 800	+ 900	17 + 000	+ 100	+ 200	+ 300	+ 400	+ 500	+ 600	
FINISHED GRADE EL.	16.71	16.73	17.59	18.45	19.31	20.12	20.19	19.76	18.72	17.45	16.20	15.99	15.29	15.04	15.29	15.59	15.83	15.56
EXISTING GROUND EL.	8.39	8.60	9.63	10.46	11.30	12.13	11.53	11.47	10.00	8.58	7.87	7.56	7.13	6.90	6.99	7.14	7.04	6.78
HORIZONTAL CURVATURE	R=2000																	



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FEASIBILITY STUDY ON METRO MANILA URBAN EXPRESSWAY SYSTEM

PLAN AND PROFILE

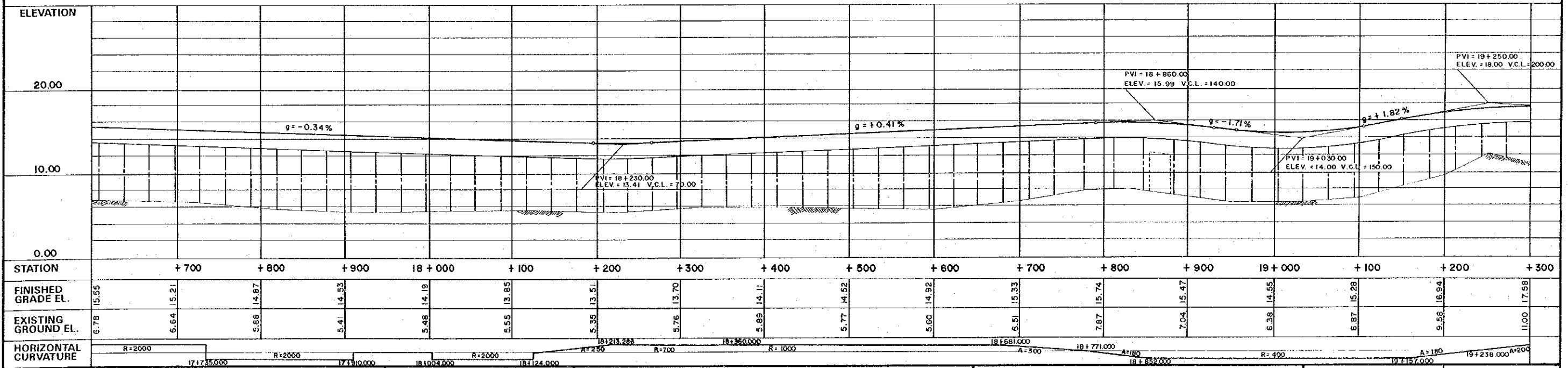
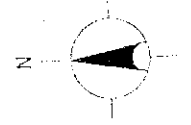
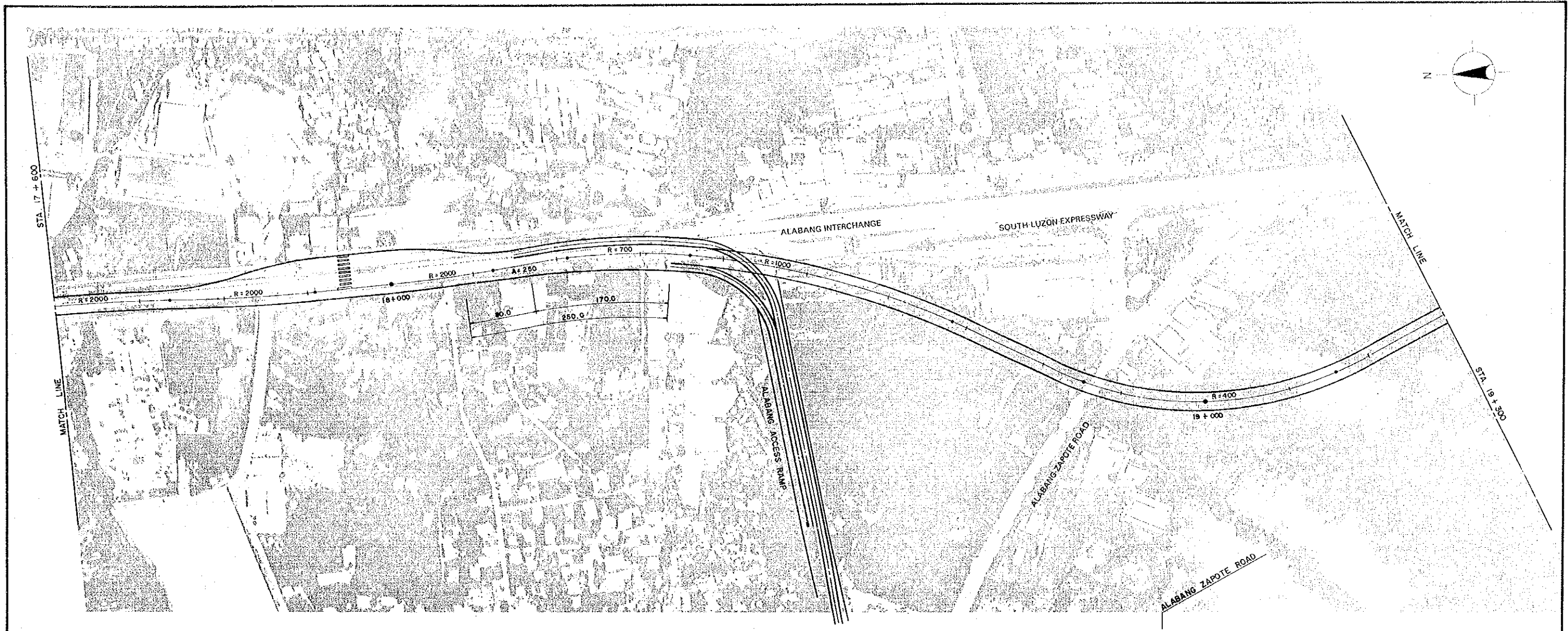
ROUTE NAME STA. 15 + 900 - STA. 17 + 600
R - 3

SCALE

HORIZONTAL : 1 : 2,500
VERTICAL : 1 : 250

DWG. No.


2 - 14



ELEVATION																	
20.00																	
10.00																	
0.00																	
STATION	+700	+800	+900	18+000	+100	+200	+300	+400	+500	+600	+700	+800	+900	19+000	+100	+200	+300
FINISHED GRADE EL.	5.55	5.21	4.87	4.53	4.19	3.85	3.51	3.17	2.83	2.49	2.15	1.81	1.47	1.13	0.79	0.45	0.11
EXISTING GROUND EL.	6.78	6.64	6.58	6.41	6.48	6.55	6.35	6.76	6.89	6.77	6.60	6.51	7.87	7.04	6.98	6.87	9.46
HORIZONTAL CURVATURE	R=2000 (17+35.000) R=2000 (17+10.000) R=2000 (18+10.000) R=2000 (18+24.000) A=250 (18+230.000) R=700 (18+360.000) R=1000 (18+681.000) A=300 (18+771.000) A=180 (18+852.000) R=400 (19+157.000) A=180 (19+238.000) A=200 (19+250.000)																

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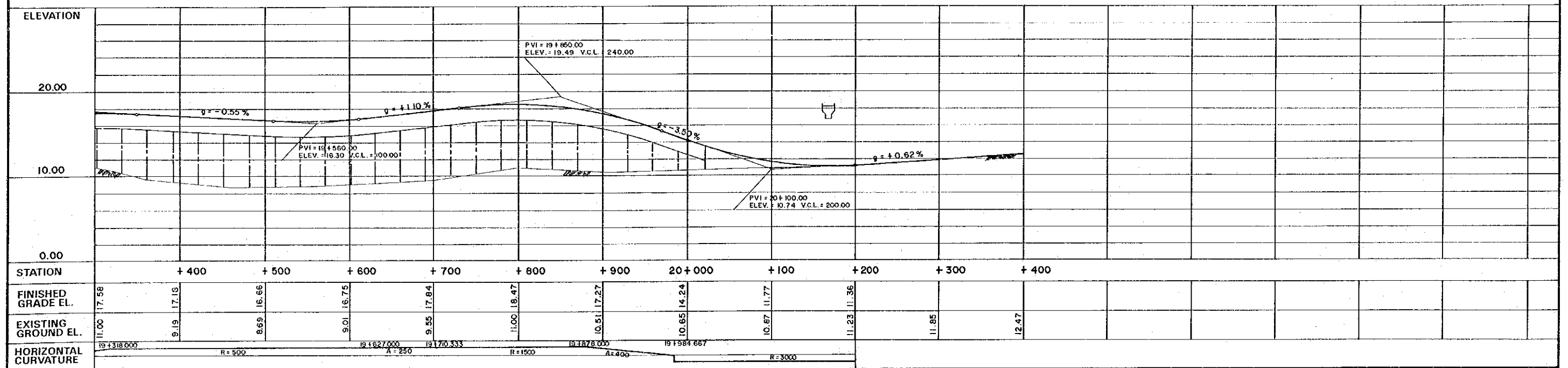
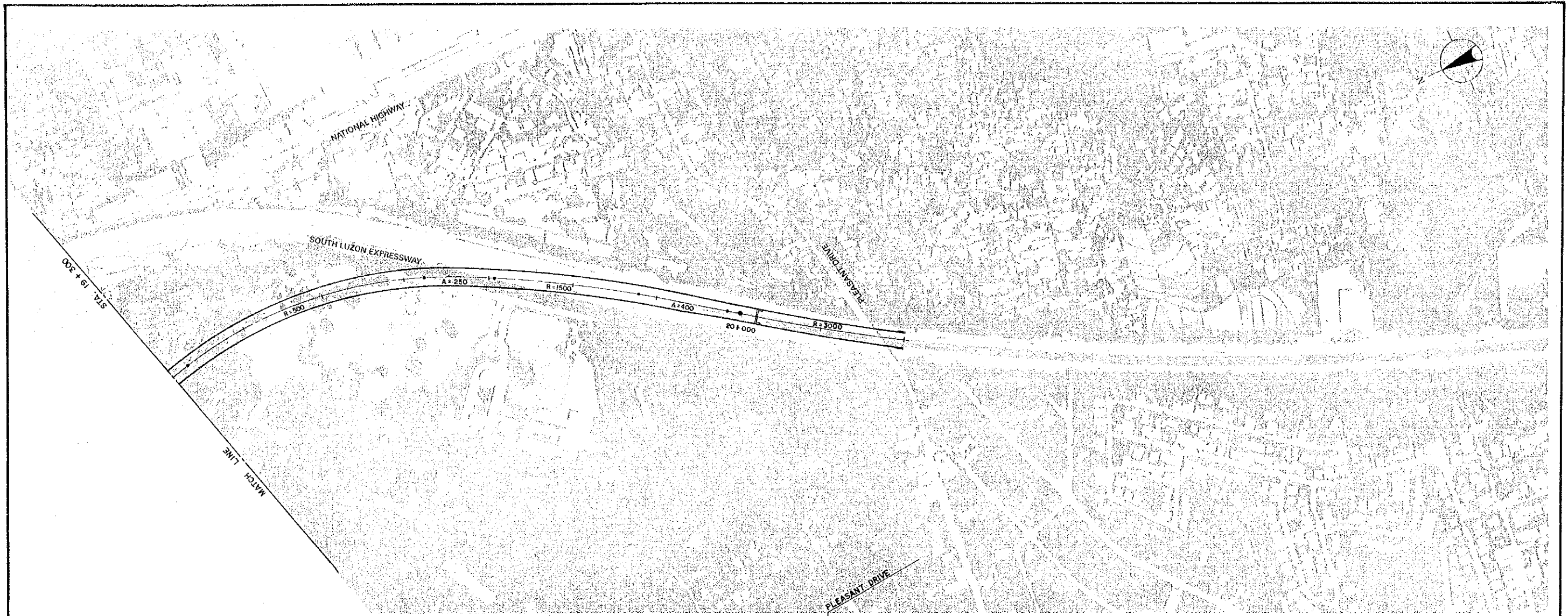

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**FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM**

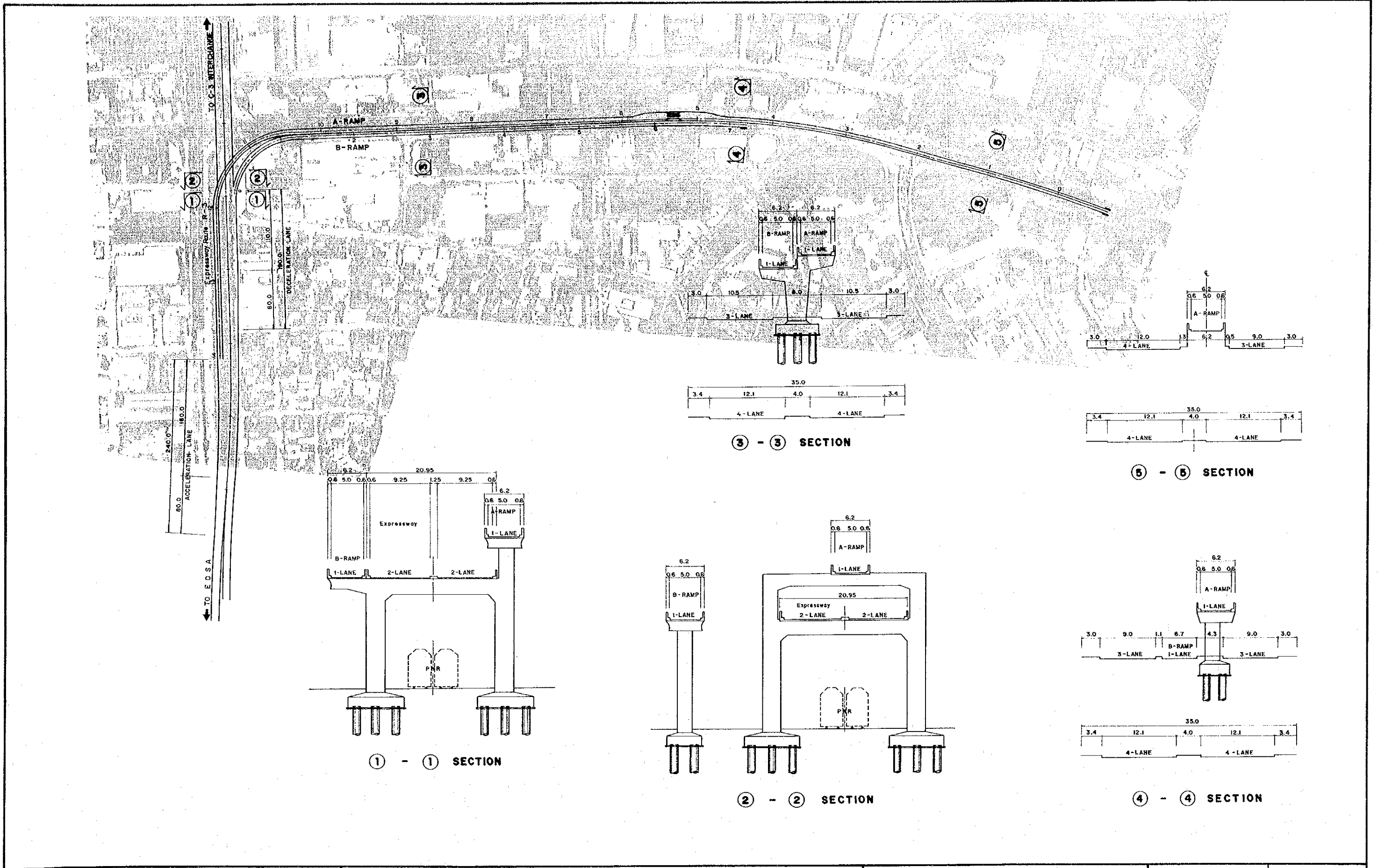
PLAN AND PROFILE
ROUTE NAME STA. 17 + 600 -- STA. 19 + 300
R - 3

SCALE
HORIZONTAL : 1 : 2,500
VERTICAL : 1 : 250

DWG. No.
2 - 15



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					HORIZONTAL : 1 : 2,500	2 - 16
					VERTICAL : 1 : 250	



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FEASIBILITY STUDY ON METRO MANILA
URBAN EXPRESSWAY SYSTEM

BUENDIA ACCESS RAMP
PLAN AND CROSS SECTION

SCALE
 1: 2,500
 1: 300

DWG. No.
2-17