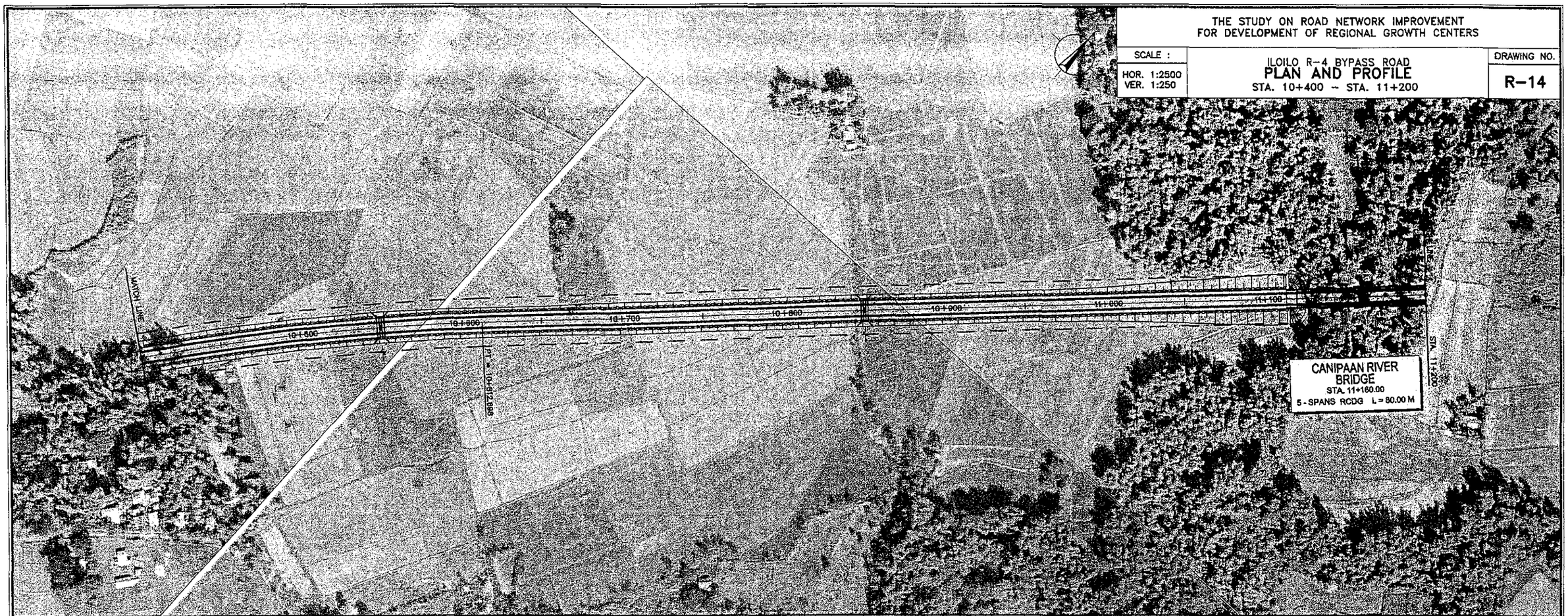
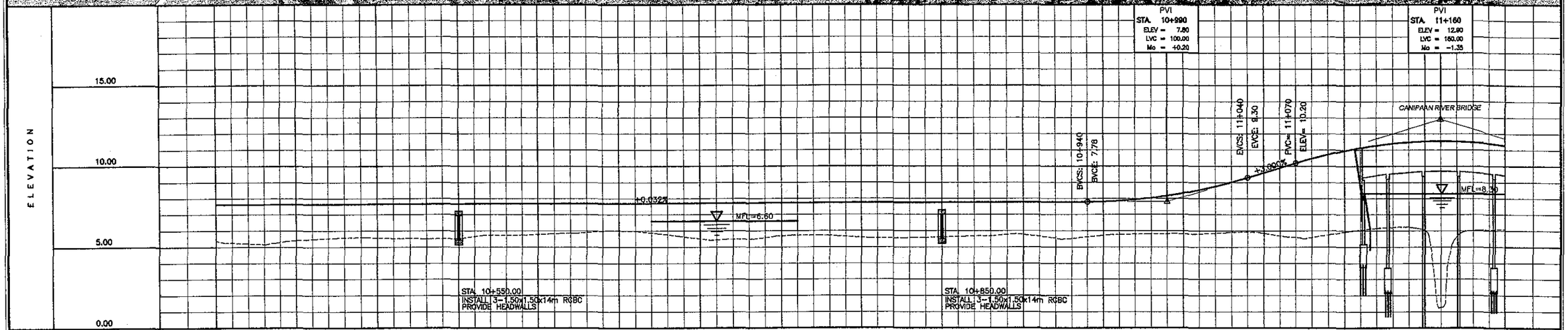
THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD	DRAWING NO.
HOR. 1:2500 VER. 1:250	**PLAN AND PROFILE** STA. 10+400 ~ STA. 11+200	R-14





STATION	10+400	10+500	10+600	10+700	10+800	10+900	11+000	11+100	11+200
FINISHED GRADE	7.613	7.629	7.645	7.660	7.676	7.692	7.708	7.724	7.740	7.756	7.772	7.788	8.267	9.600	10.950	11.534	11.284
ORIGINAL GROUND	5.38	5.41	5.56	5.51	5.78	6.00	5.51	5.68	5.59	5.61	5.76	5.72	5.81	5.85	5.91	6.24	6.08
HORIZONTAL CURVATURE	R = 1500						R = ∞										
VERTICAL CURVATURE	g = +0.032 % L = 630.00 m												g = +3.000 % L = 170.00 m			g=-3.000 % L=180.00 m	

ELEMENTS OF CURVES

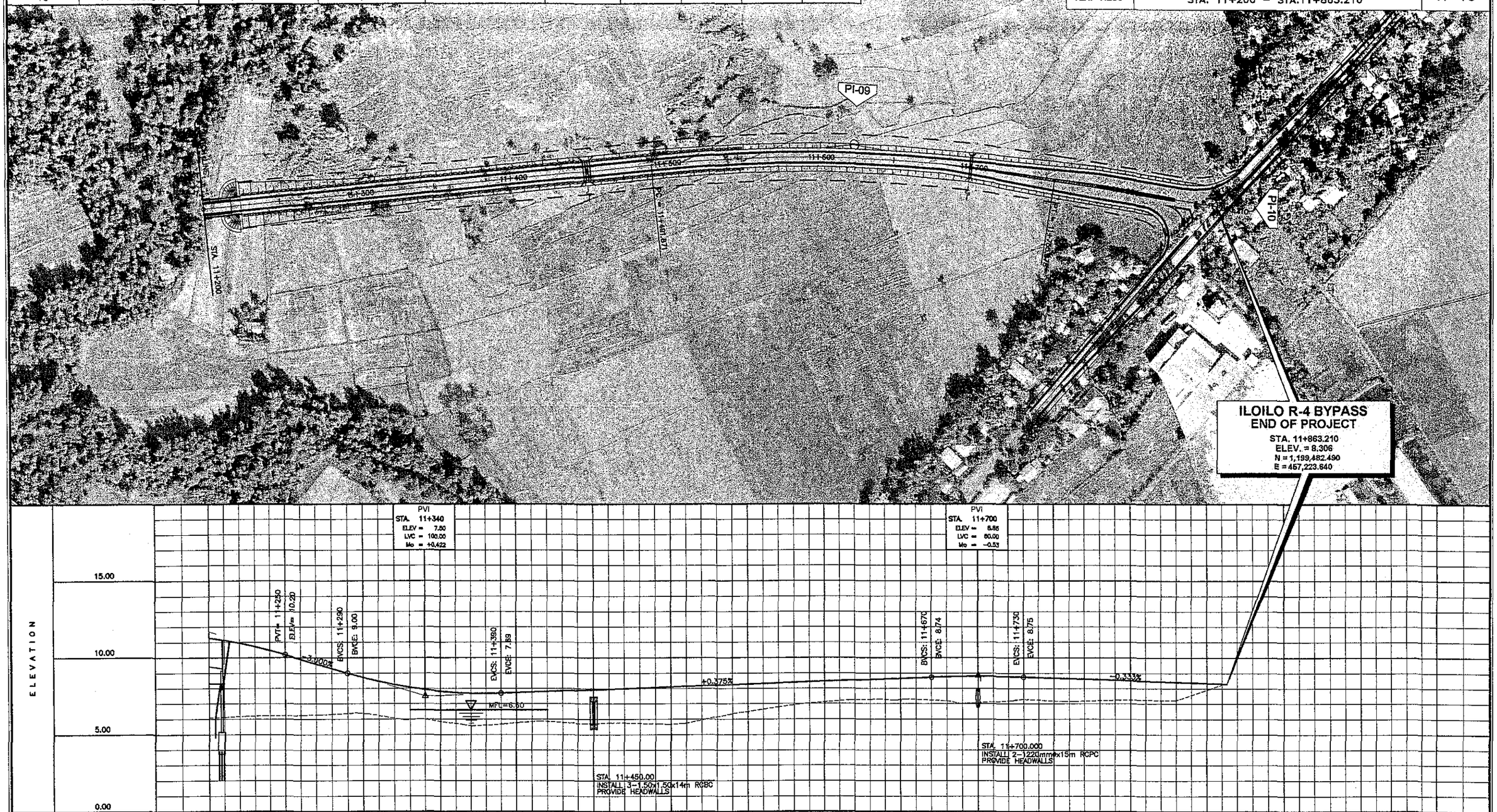
PI NO.	STATION	COORDINATES		I	R	T	Lc	Es	V (kph)
		NORTHING	EASTING						
9	11 + 624.545	1,199,366.400	457,013.350	15° 06' 54.1" R	1000.00	132.67	263.81	8.76	80.00
10	11 + 863.210	1,199,482.490	457,223.640						80.00

THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :
HOR. 1:2500
VER. 1:250

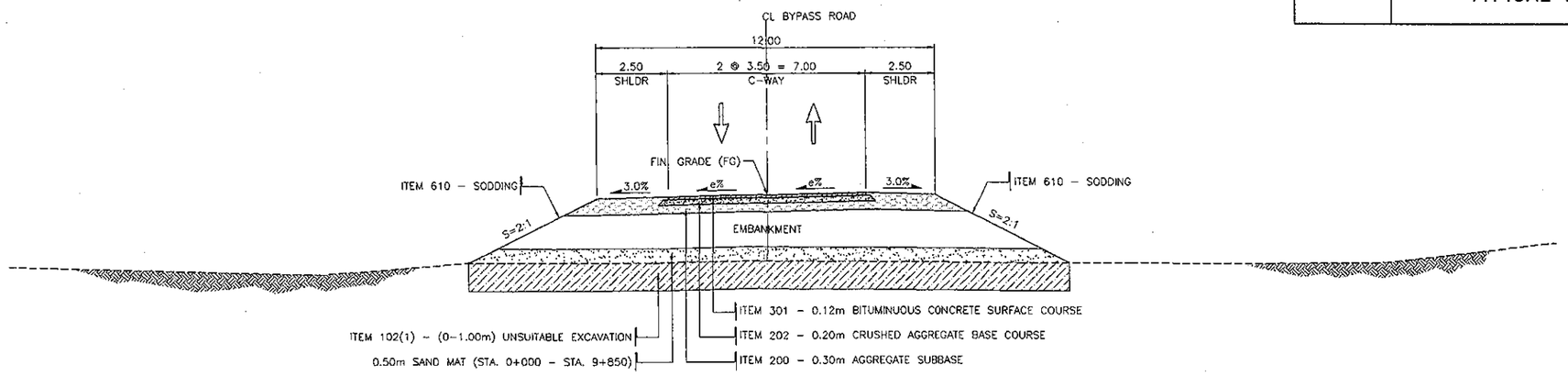
ILOILO R-4 BYPASS ROAD
PLAN AND PROFILE
STA. 11+200 – STA.11+863.210

DRAWING NO.
R-15

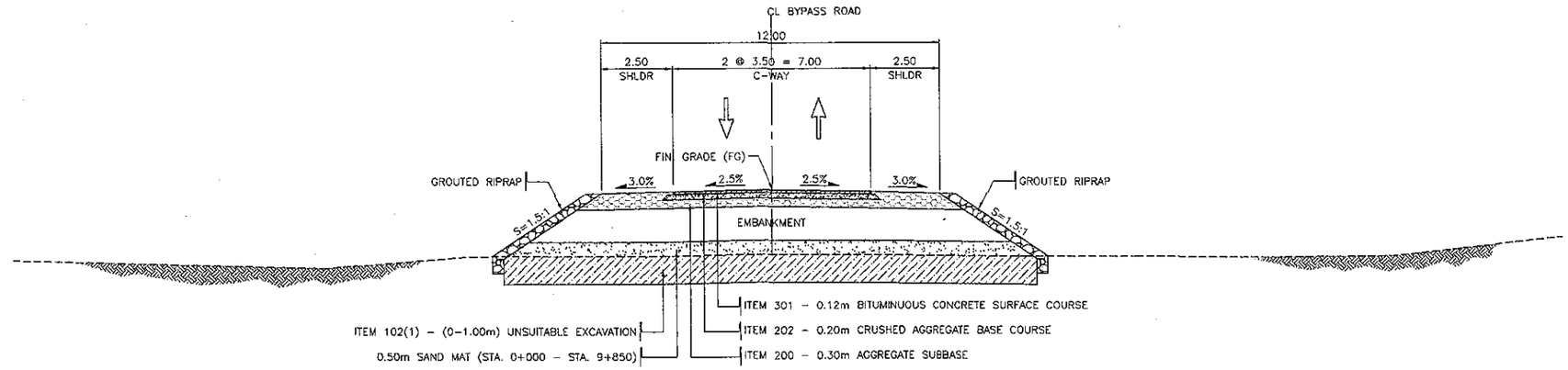


STATION	11+200	11+300	11+400	11+500	11+600	11+700	11+800						
FINISHED GRADE	11.284	10.200	8.717	7.808	7.725	7.913	8.100	8.288	8.475	8.663	8.797	8.683	8.517	8.350	8.306
ORIGINAL GROUND	6.08	6.23	6.38	5.85	5.77	5.72	5.68	6.50	7.11	7.27	7.07	7.18	7.24	7.80	8.31
HORIZONTAL CURVATURE	R = CC				PI – 9						R = 1000			R = CC	
VERTICAL CURVATURE	g = -3.000 % L = 180.00 m				g = +0.375 % L = 360.00 m						g = -0.333 % L = 163.21 m				

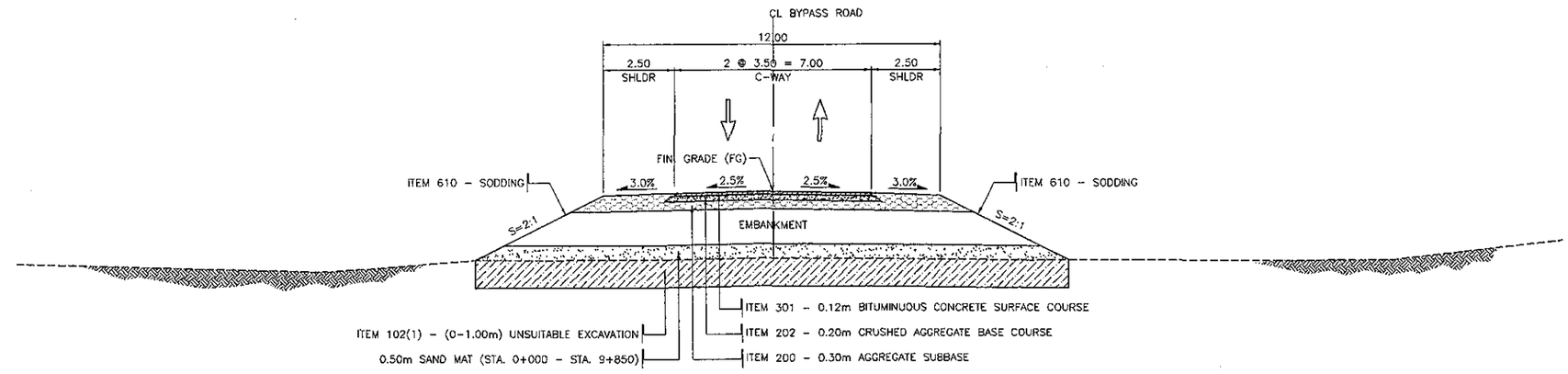
THE STUDY ON ROAD NETWORK IMPROVEMENT FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS		
SCALE :	ILOILO R-4 BYPASS ROAD TYPICAL ROAD SECTIONS	DRAWING NO. R-16



SUPERELEVATED SECTION



NORMAL SECTION WITH RIPRAP

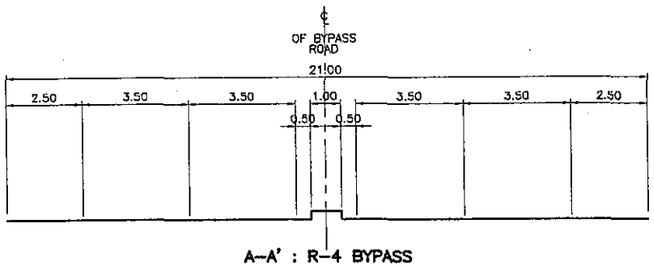


NORMAL SECTION

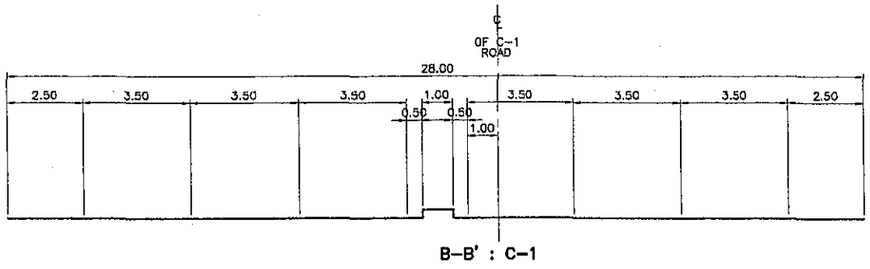
TYPICAL ROAD SECTIONS

THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

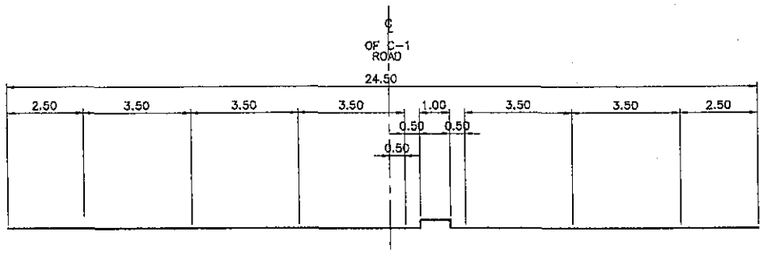
SCALE :	ILOILO R-4 BYPASS ROAD	DRAWING NO.
PLAN. 1:1000 SECTION.1:200	**INTERSECTION WITH C-1 ROAD** STA. 8+611.56	R-17



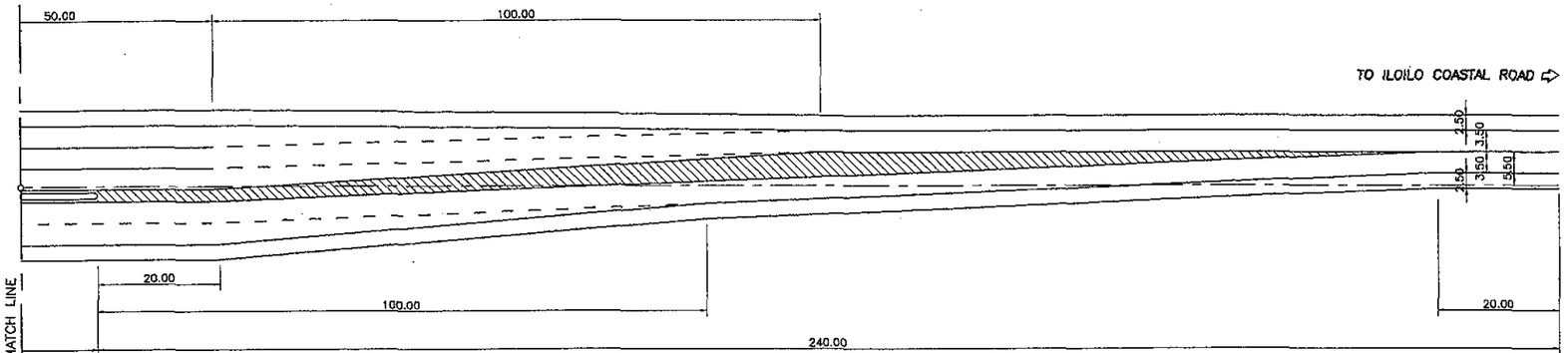
A–A' : R–4 BYPASS

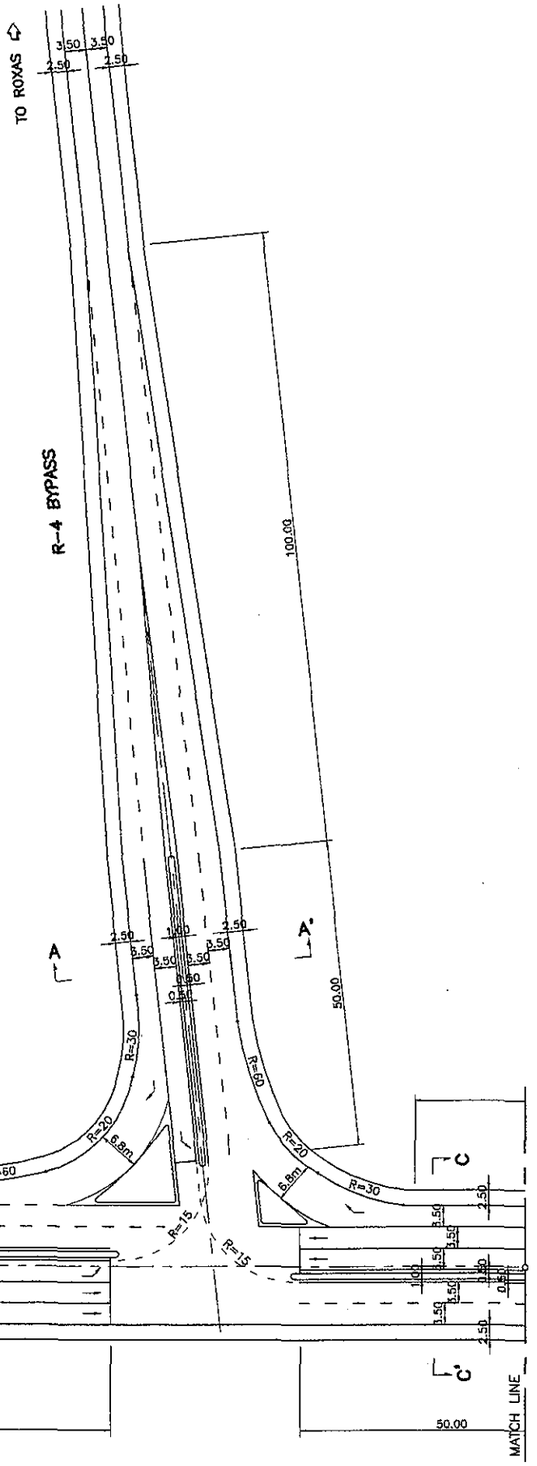


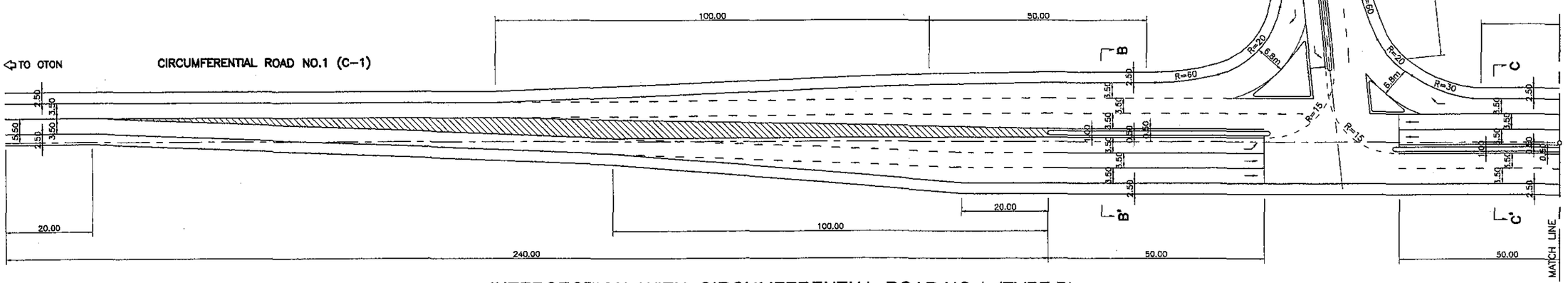
B–B' : C–1



C–C' : C–1



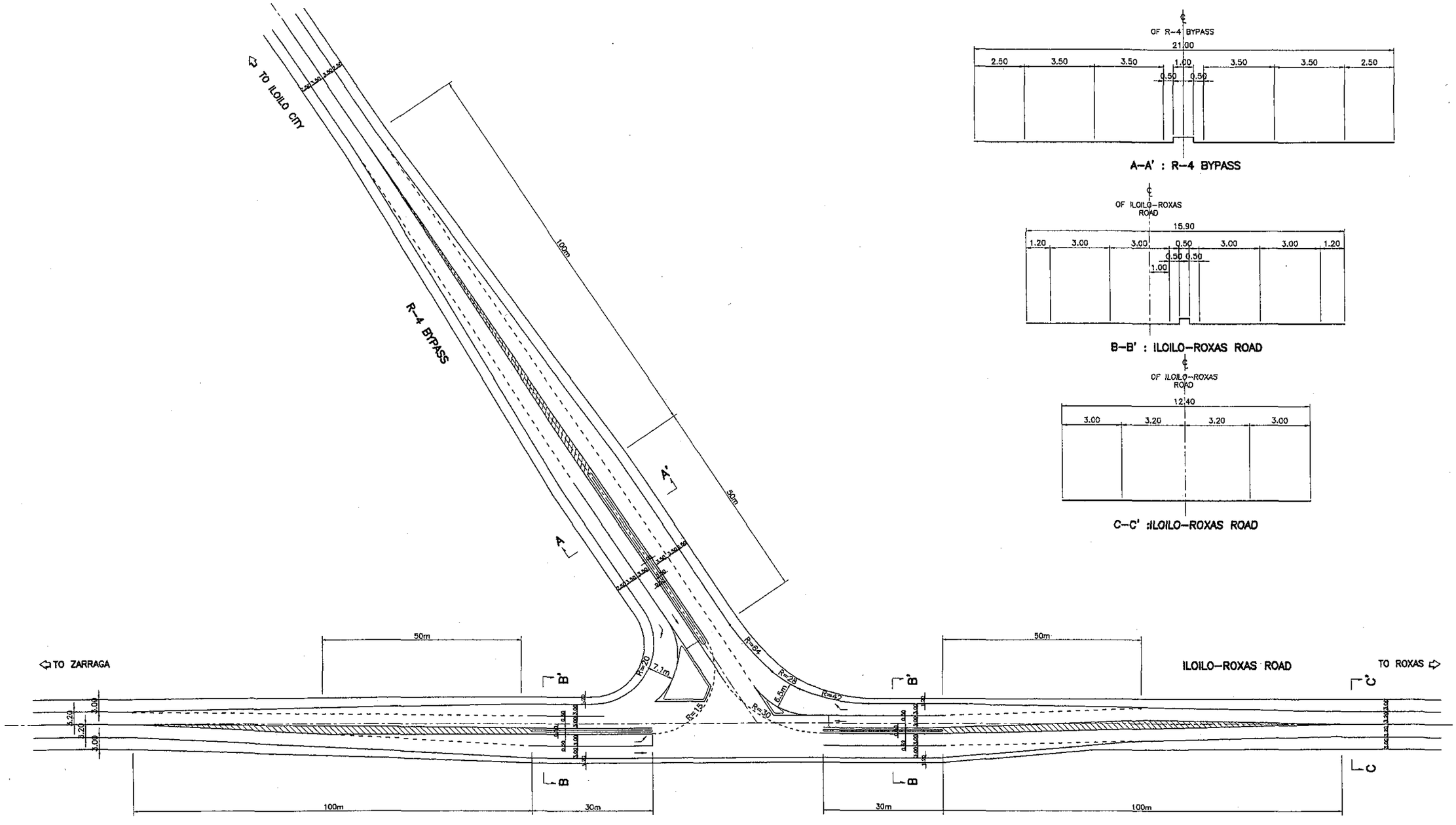




INTERSECTION WITH CIRCUMFERENTIAL ROAD NO.1 (TYPE D)
STA. 8+611.56, BEG. OF R-4 BYPASS ROAD

THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD	DRAWING NO.
PLAN. 1:1000 SECTION.1:200	**INTERSECTION WITH ILOILO CITY-ROXAS ROAD** STA. 11+863.21	R-18



A–A' : R–4 BYPASS

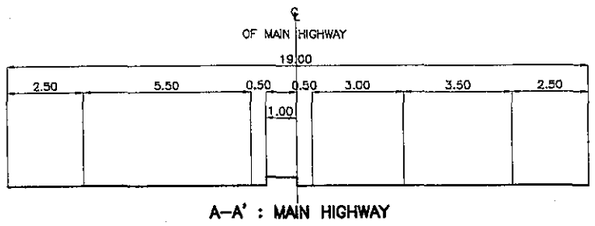
B–B' : ILOILO–ROXAS ROAD

C–C' :ILOILO–ROXAS ROAD

INTERSECTION WITH ILOILO CITY-ROXAS ROAD (TYPE H)
STA. 11+863.21, END OF ILOILO R-4 BYPASS ROAD

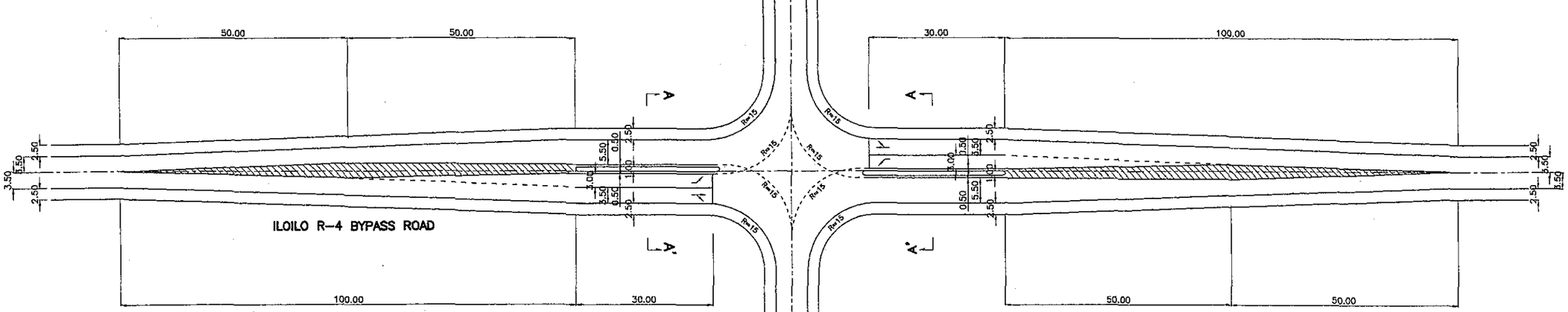
THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD	DRAWING NO.
PLAN. 1:1000 SECTION.1:200	**INERSECTION DETAILS WITH MINOR ROADS** (TYPE Q)	R-19



A–A' : MAIN HIGHWAY

W	4m ~ 6.5m
W1	0 ~ 0.5m

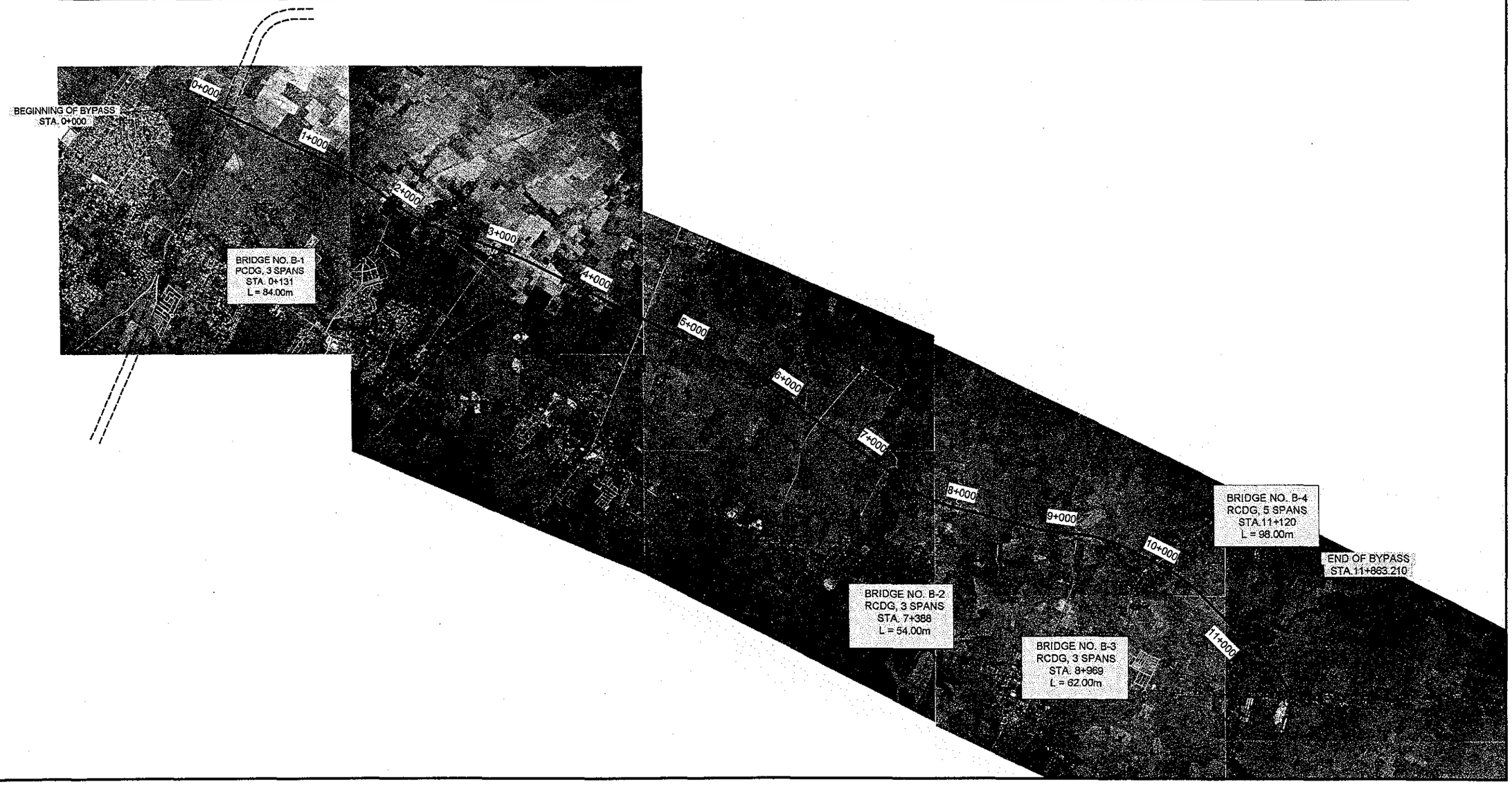


INTERSECTION DETAILS WITH MINOR ROADS (TYPE Q)

THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

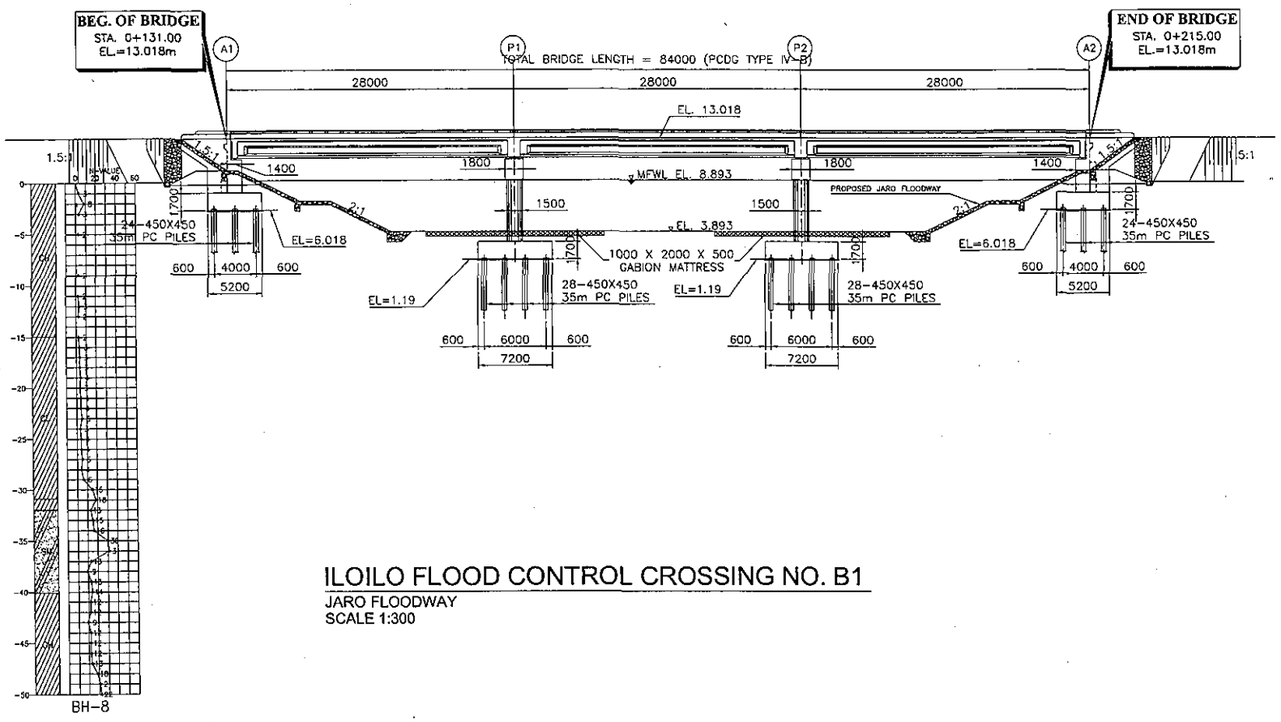
SCALE :	ILOILO BYPASS ROAD LOCATION PLAN AND BRIDGE LIST	DRAWING NO.
1:30000		B−1

Bridge No.	Station		River Name	River Hydraulics			Proposed Bridge				
	Beg	End		Elev. MFWL	Q(cms) (50yrs)	Velocity m/s	No. of Span	Span Length(m)	Bridge Length(m)	Skew (deg)	Superstructure Type
B1	Sta. 0+131	Sta. 0+215	JARO FLOODWAY	8.893	FLOOD CONTROL PROJECT	x	3	28	84.00	90	PCDG, AASHTO Type IV-B
B2	Sta. 7+388	Sta. 7+442	CALABOA CREEK	7.80	92.15	2.23	3	16+22+16	54.00	90	RCDG
B3	Sta. 8+969	Sta. 9+031	CANIPAAN CREEK	6.60	207.26	1.96	3	20+22+20	62.00	90	RCDG
B4	Sta. 11+120	Sta. 11+200	CANIPAAN RIVER	8.30	460.82	1.57	5	16+22+22+22+16	98.00	90	RCDG



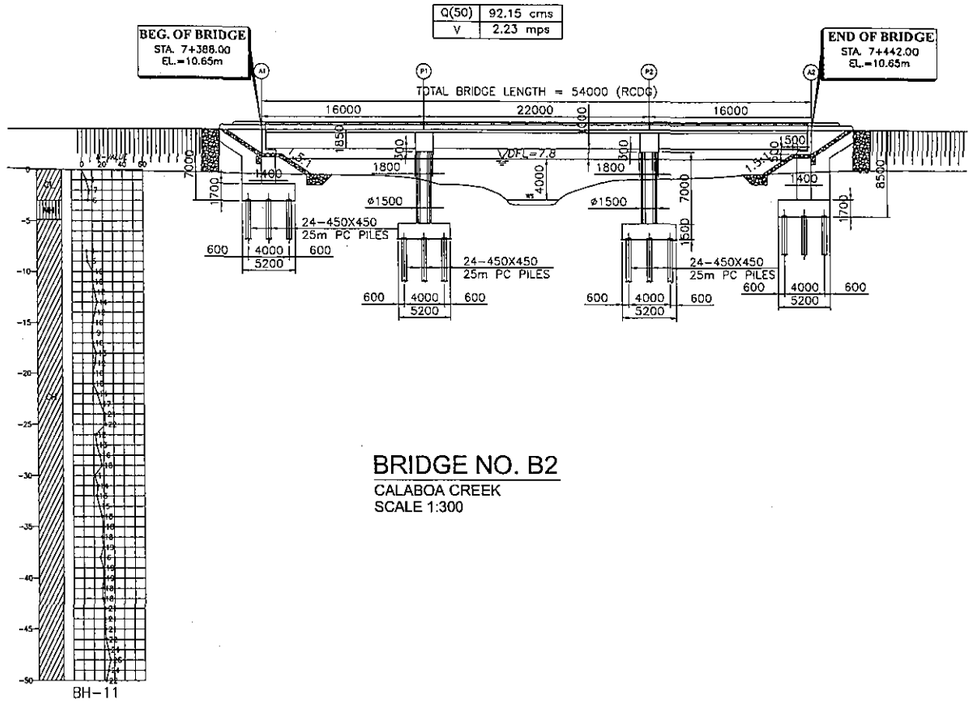
THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD BRIDGE ELEVATIONS, B1 TO B4	DRAWING NO.
AS SHOWN		B-2



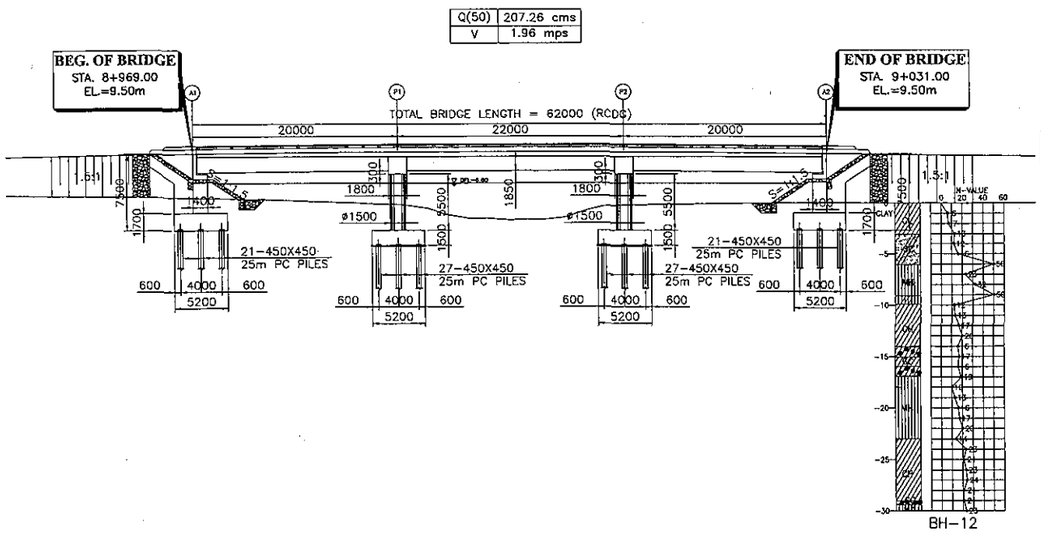
ILOILO FLOOD CONTROL CROSSING NO. B1

JARO FLOODWAY
SCALE 1:300



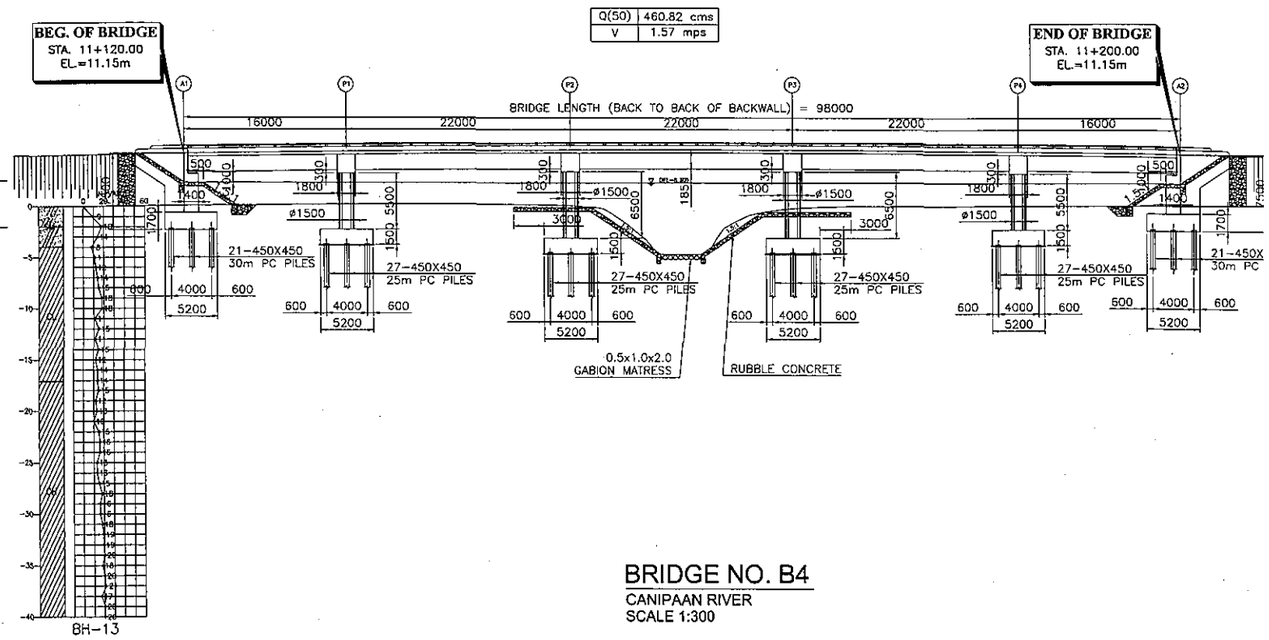
BRIDGE NO. B2

CALABOA CREEK
SCALE 1:300



BRIDGE NO. B3

CANIPAAN CREEK
SCALE 1:300

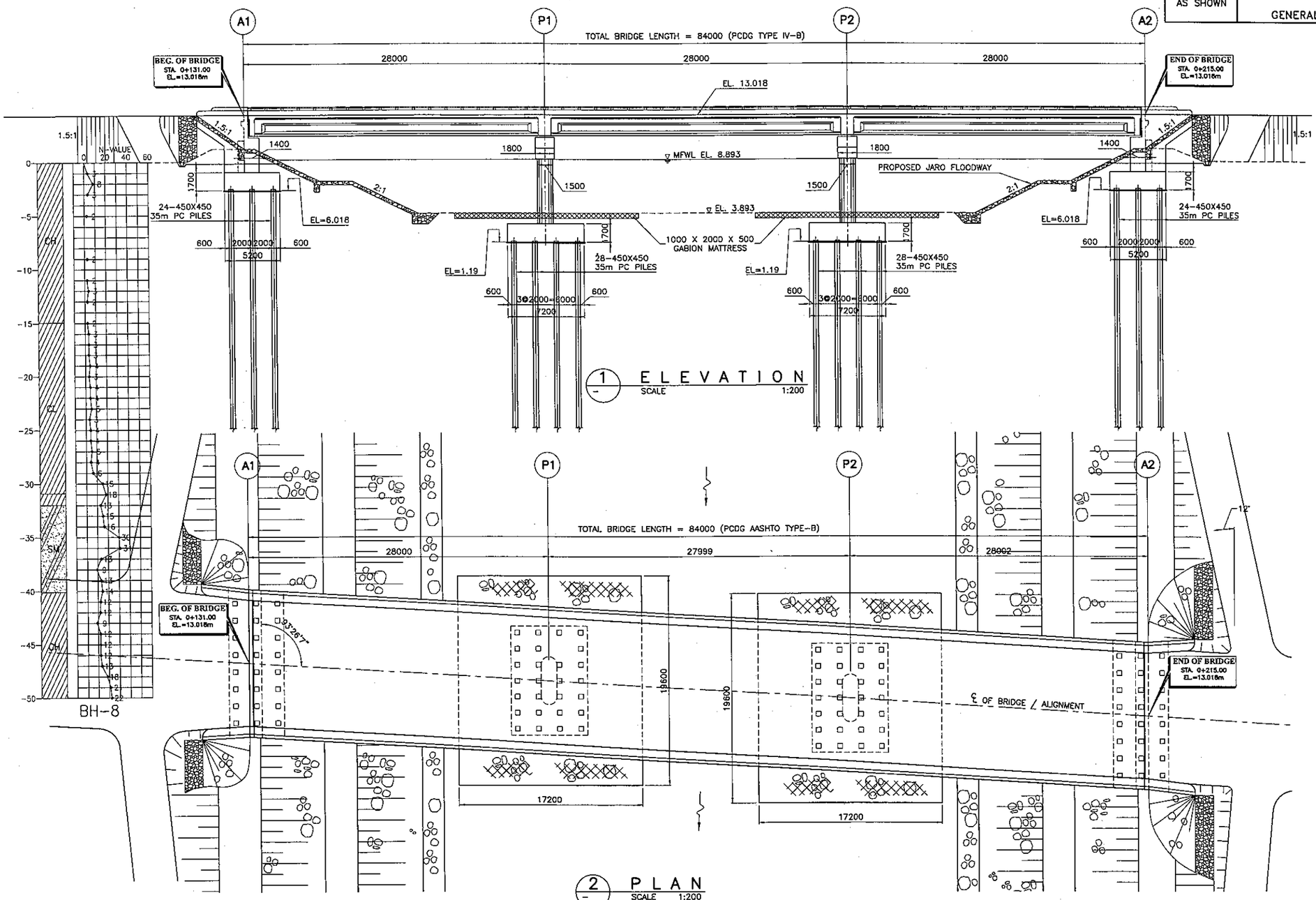


BRIDGE NO. B4

CANIPAAN RIVER
SCALE 1:300

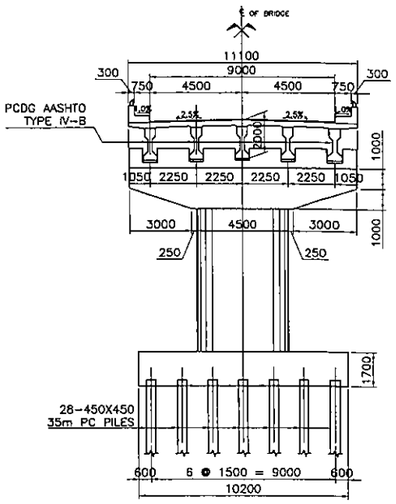
THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD **BRIDGE NO. B1 (JARO FLOODWAY)** STA. 0+131.00 GENERAL PLAN, ELEVATIONS AND SECTIONS	DRAWING NO.
AS SHOWN		B-3

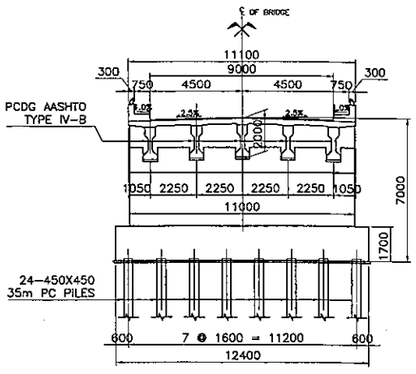


1 — ELEVATION
SCALE 1:200

2 — PLAN
SCALE 1:200



3 — SECTION @ PIER
SCALE 1:150



4 — SECTION @ ABUTMENT
SCALE 1:150

NOTE:

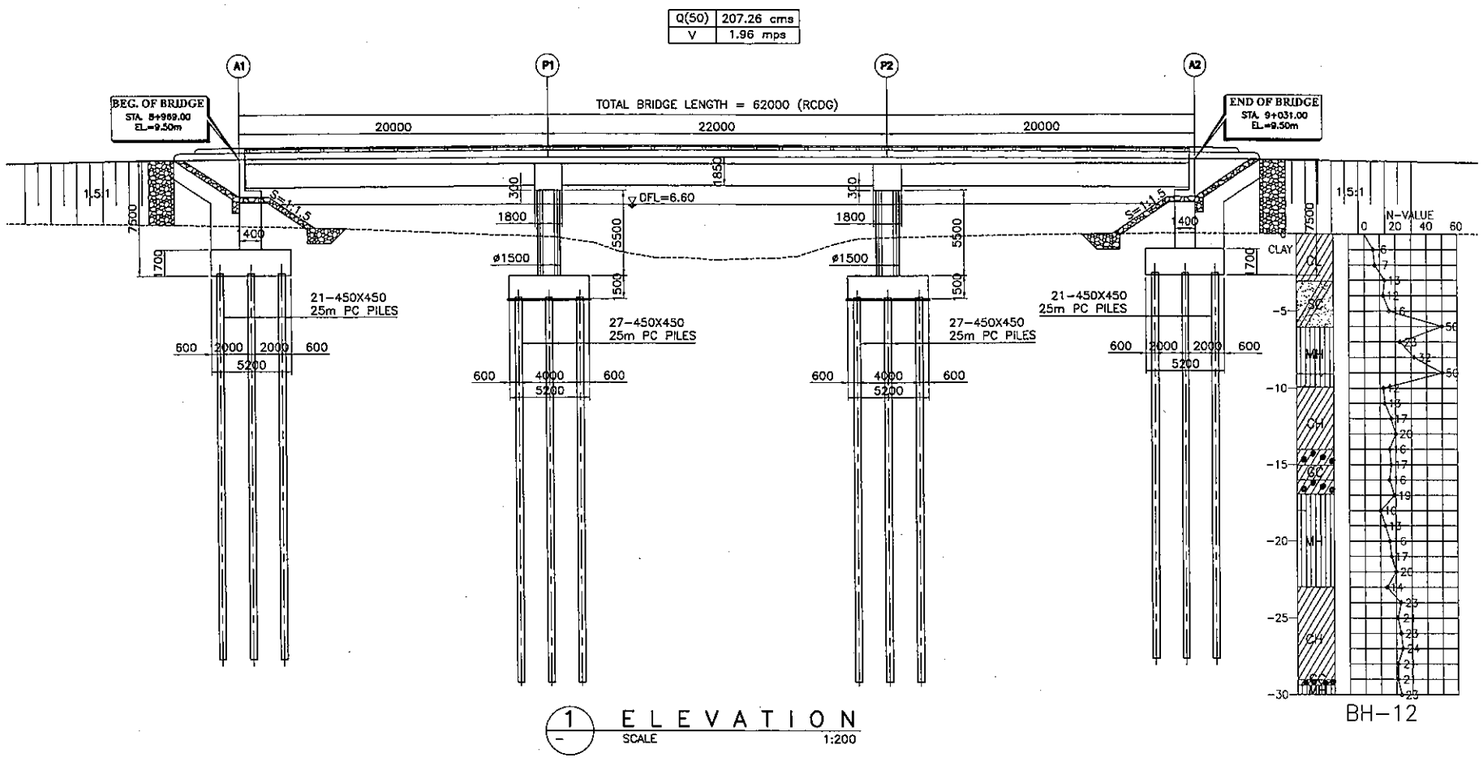
1. JARO FLOODWAY IS NON-EXISTENT BUT PART OF THE PROPOSED ILOILO FLOOD CONTROL PROJECT.
2. SECTION SHOWN IS THE PROPOSED FLOODWAY OF THE FLOOD CONTROL PROJECT.

SUMMARY OF ESTIMATED QUANTITIES

ITEM No.	DESCRIPTION	UNIT	QUANTITY
103(2)	BRIDGE EXCAVATION, COMMON, ABOVE OWL	m^3	457.00
103(2)b	BRIDGE EXCAVATION, COMMON, BELOW OWL	m^3	505.00
104(1)c	SELECTED BORROW FOR BACKFILLING	m^3	600.00
311(2)	PCC PAVEMENT (REINFORCED) FOR APPROACH SLAB, t = 300mm	m^2	90.00
400(4)	PRECAST CONCRETE PILES (450x450), FURNISHED and DRIVEN	m	3,500.00
400(15)	TEST PILES (450x450) FURNISHED and DRIVEN	m	104.00
400(19)	PILE SHOES for 450x450 PILES	ea	96.00
401	CONCRETE RAILINGS	m	168.00
404(2)	REINFORCING STEEL, GRADE 60(fy = 415MPa)	kg	145,241.30
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE(fc' = 24MPa)	m^3	412.00
405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE(fc' = 24MPa)	m^3	363.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (fc' = 17MPa)	m^3	37.00
406(1)f	PRESTRESSED CONCRETE GIRDER, AASHTO TYPE IV-B, L = 28m	ea	15.00
407(1)c	ELASTOMERIC BEARING PAD, 625 x 400 x 60(DURO 60)	ea	10.00
407(2)a	EXPANSION JOINT,MULTIPLEX M80(± 30mm MOVEMENT)	m	18.00
407(4)	METAL DRAIN (ø150mm G.I. DRAIN PIPE)	m	24.00
504	GROUTED RIPRAP SLOPE PROTECTION	m^3	20.00
509	GABIONS	m^3	675.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t = 350mm	m^3	307.00

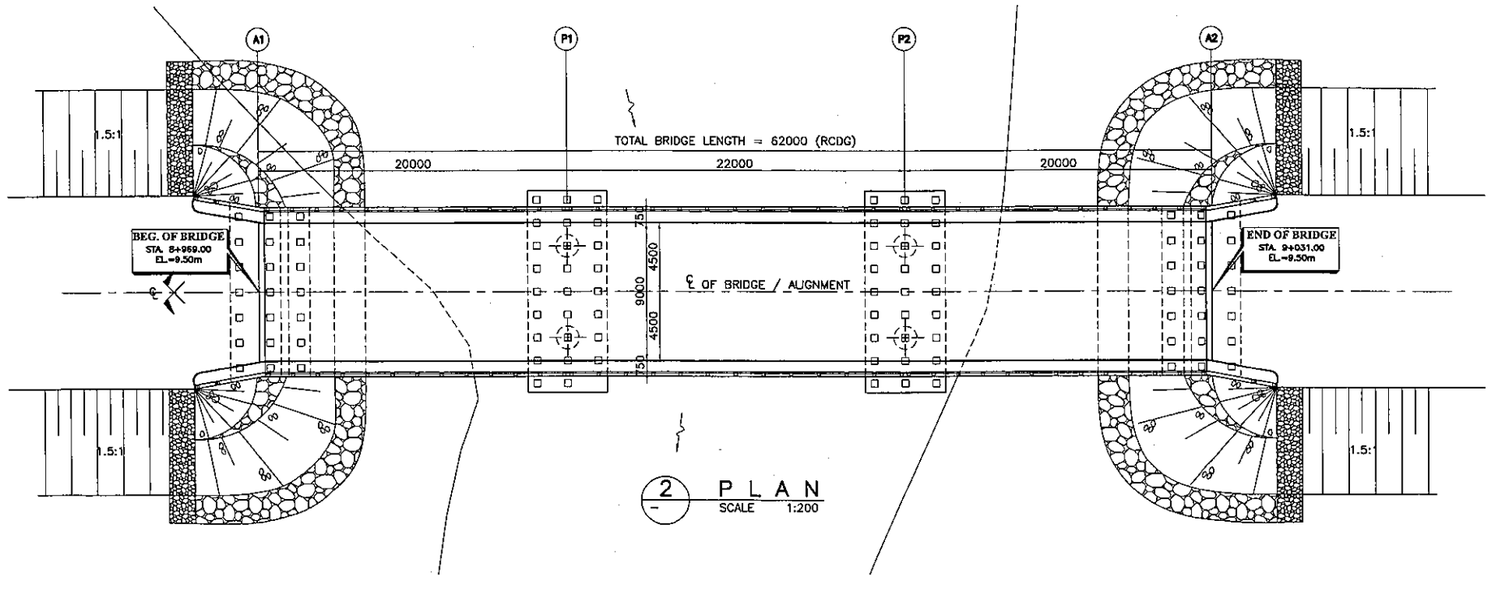
THE STUDY ON ROAD NETWORK IMPROVEMENT
FOR DEVELOPMENT OF REGIONAL GROWTH CENTERS

SCALE :	ILOILO R-4 BYPASS ROAD **BRIDGE NO. B3 (CANIPAAN CREEK)** STA. 8+969.00 GENERAL PLAN, ELEVATION AND SECTIONS	DRAWING NO.
AS SHOWN		B-4

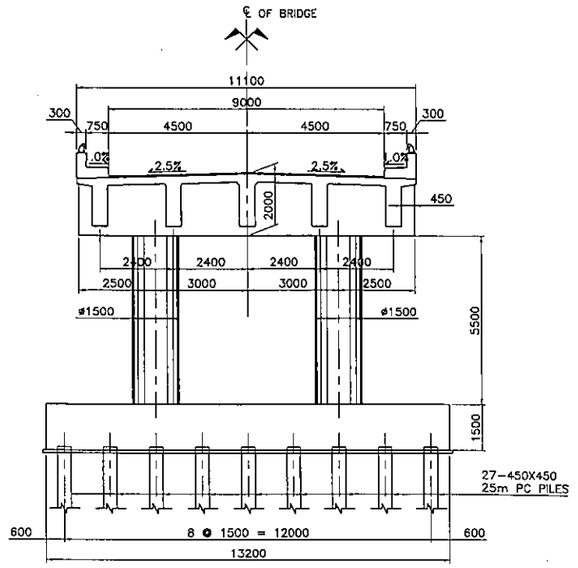


1 ELEVATION
SCALE 1:200

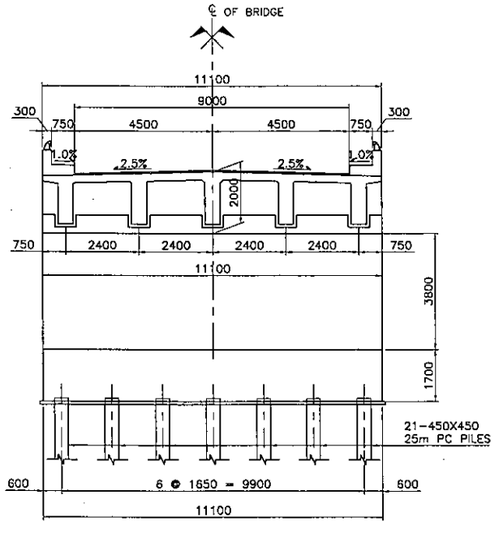
BH-12



2 PLAN
SCALE 1:200



3 SECTION @ PIER
SCALE 1:100



4 SECTION @ ABUTMENT
SCALE 1:100

SUMMARY OF ESTIMATED QUANTITIES

ITEM No.	DESCRIPTION	UNIT	QUANTITY
103(2)	BRIDGE EXCAVATION, COMMON, ABOVE OWL	m^3	450.00
103(2)b	BRIDGE EXCAVATION, COMMON, BELOW OWL	m^3	704.00
104(1)c	SELECTED BORROW FOR BACKFILLING	m^3	409.00
311(2)	PCC PAVEMENT (REINFORCED) FOR APPROACH SLAB, t = 300mm	m^3	90.00
400(4)	PRECAST CONCRETE PILES (450x450), FURNISHED and DRIVEN	m^2	2,300.00
400(15)	TEST PILES (450x450) FURNISHED and DRIVEN	m	108.00
400(19)	PILE SHOES for 450x450 PILES	ea	96.00

401	CONCRETE RAILINGS	m	124.00
404(2)	REINFORCING STEEL, GRADE 60(fy = 415MPa)	kg	195,114.00
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE(fc' = 24MPa)	m^3	459.00
405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE(fc' = 24MPa)	m^3	467.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (fc' = 17MPa)	m^3	41.00
407(1)a	ELASTOMERIC BEARING PAD, 450 x 350 x 60(DURO 60)	ea	10.00
407(2)a	EXPANSION JOINT,MULTIPLEX M80(± 30mm MOVEMENT)	m	18.00
407(4)	METAL DRAIN (ø150mm G.I. DRAIN PIPE)	m	24.00
504	GROUTED RIPRAP SLOPE PROTECTION	m^3	11.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t = 350mm	m^3	150.00

JICA