

ELEMENTS OF CURVES

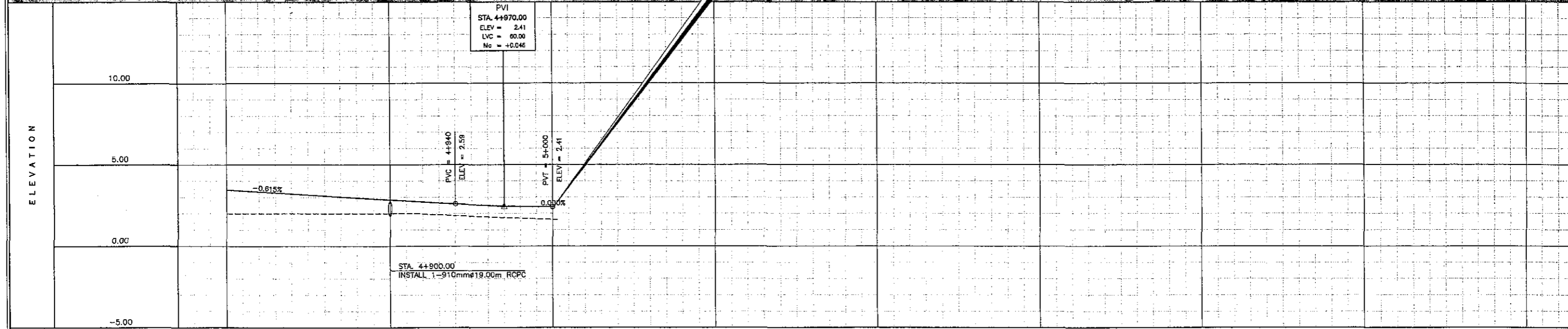
PI NO.	STATION	COORDINATES		I	R	T	Lc	Es	V(kph)
		NORTHING	EASTING						
14	4+923.705	941400.444	457182.412	43°23'44"	150.00	59.685	113.609	11.438	60.00
15	5+000.742	941482.780	457191.130						

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

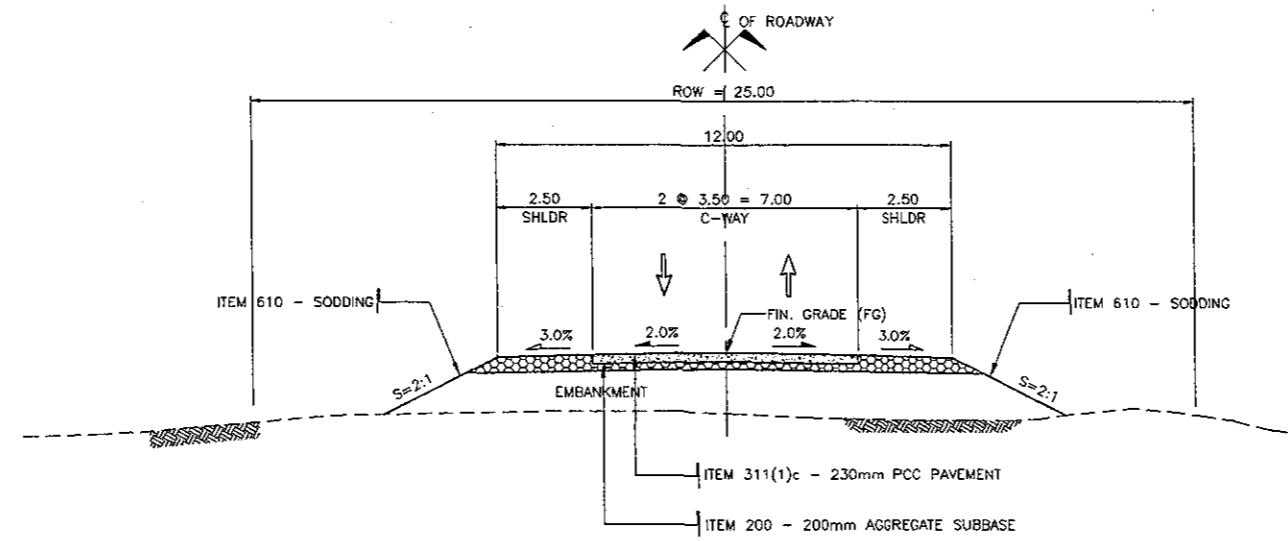
SCALE :
HOR. 1:2500
VER. 1:250

CAGAYAN DE ORO WESTERN DIVERSION ROAD
PLAN AND PROFILE
STA. 4+800 - STA. 5+000.742

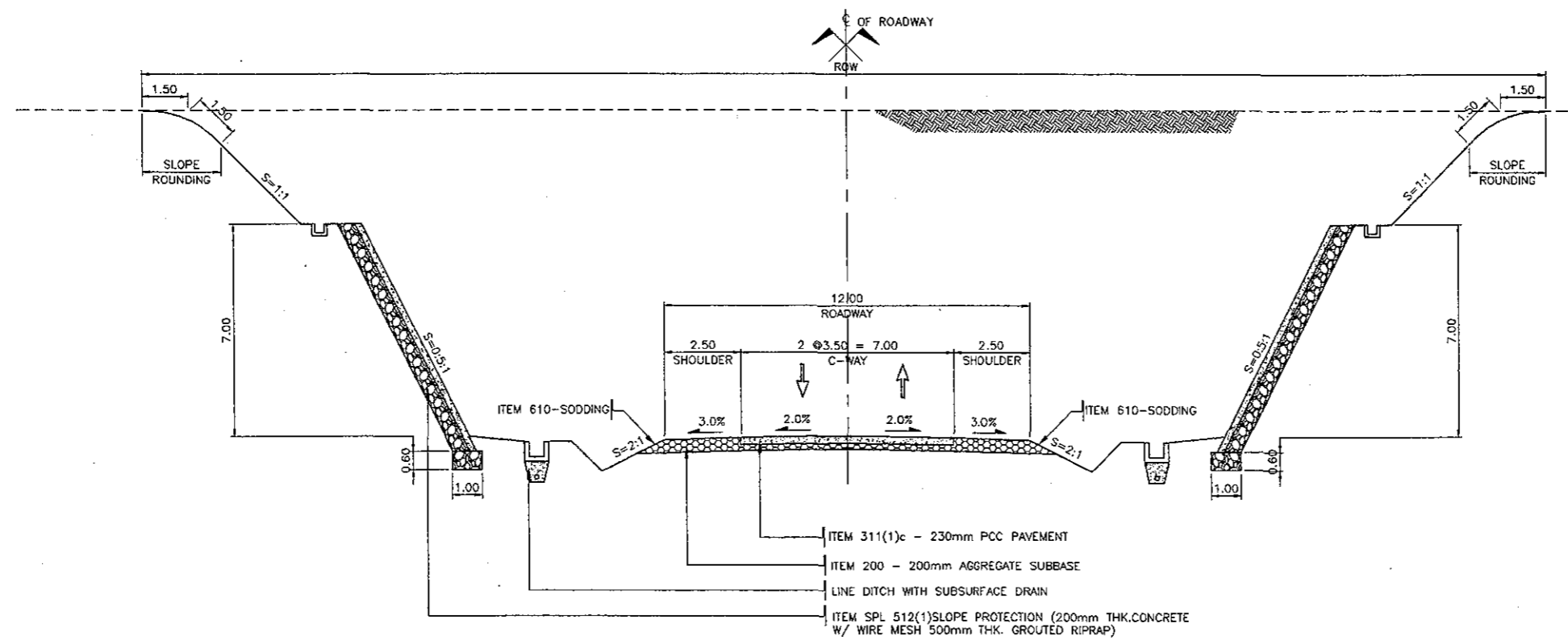
DRAWING NO.
R-7



STATION	4+800	4+900	5+000	5+100	5+200	5+300	5+400	5+500
FINISHED GRADE	3.455	3.148	2.840	2.538	2.410			
ORIGINAL GROUND	2.00	2.00	2.00	1.84	1.83			
HORIZONTAL CURVATURE	— R = ∞ —		PI - 14	R = 150	— R = ∞ —			
VERTICAL CURVATURE	g = -0.615 %		L = 300.00 m		g = 0.000 %		L = 30.742 m	



NORMAL SECTION



CUT SECTION

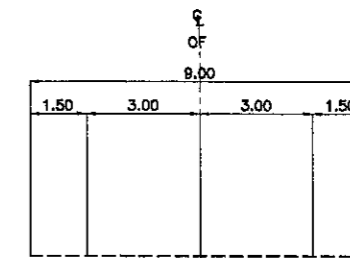
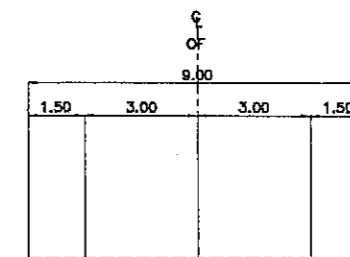
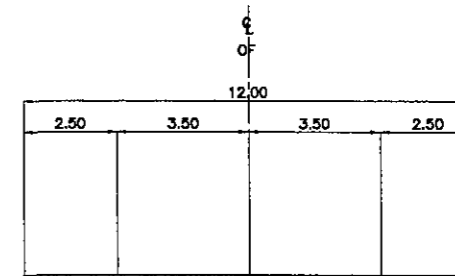
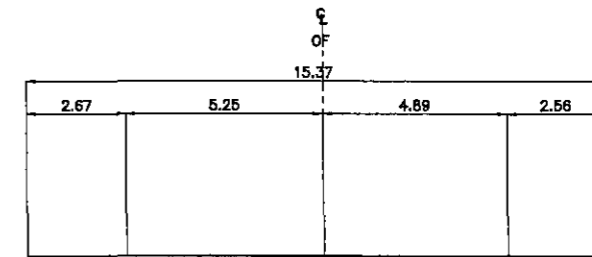
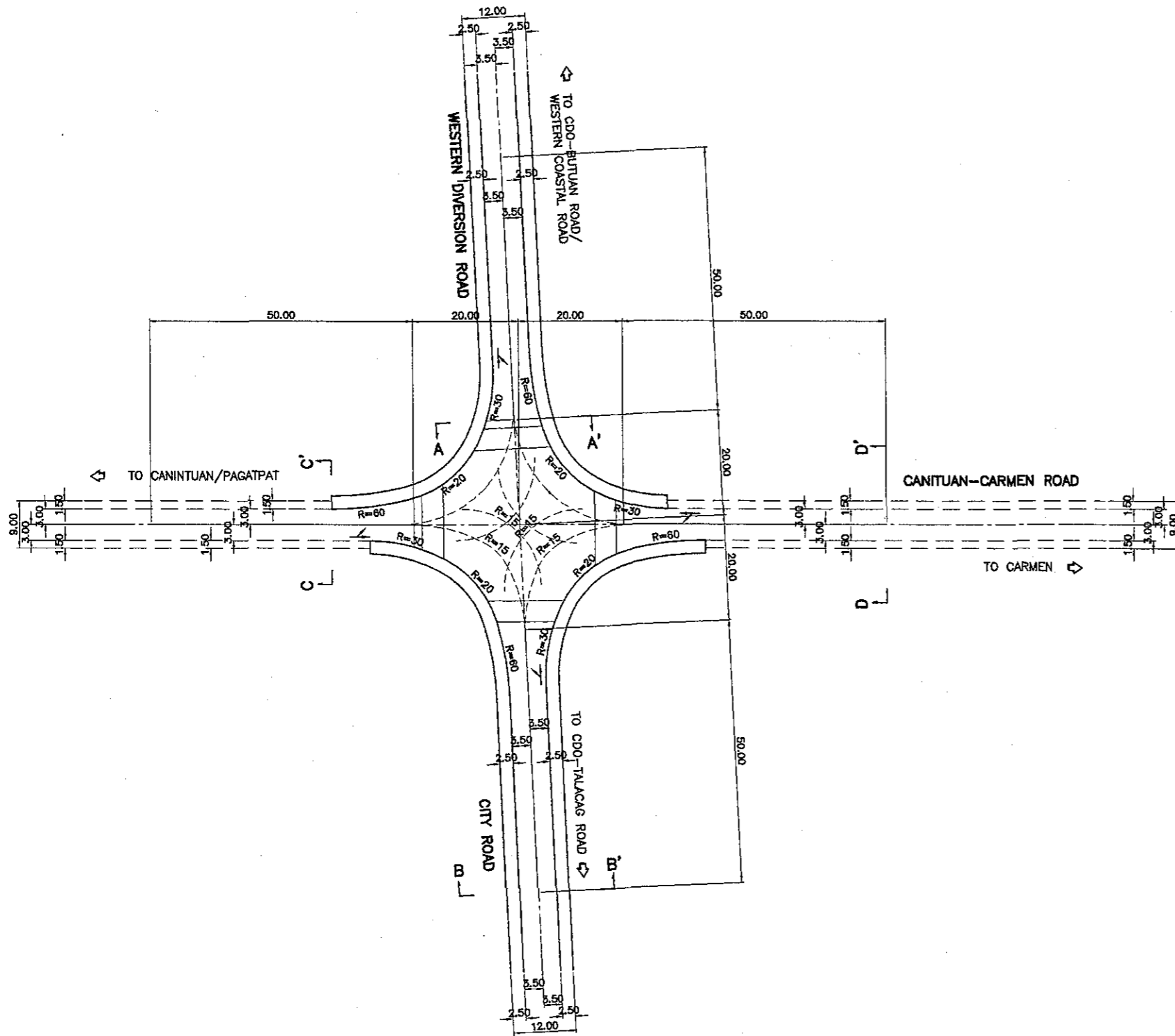
TYPICAL ROAD SECTIONS - CAGAYAN DE ORO WESTERN DIVERSION ROAD

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

SCALE :
PLAN. 1:1000
SECTION. 1:200

CAGAYAN DE ORO WESTERN DIVERSION ROAD
INTERSECTION DETAILS
STA. 0+000.000

DRAWING NO.
R-9



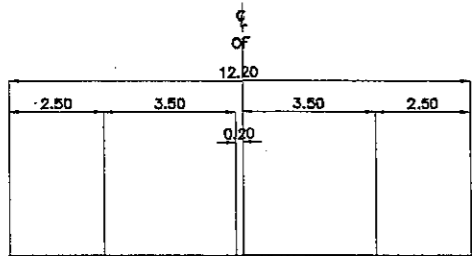
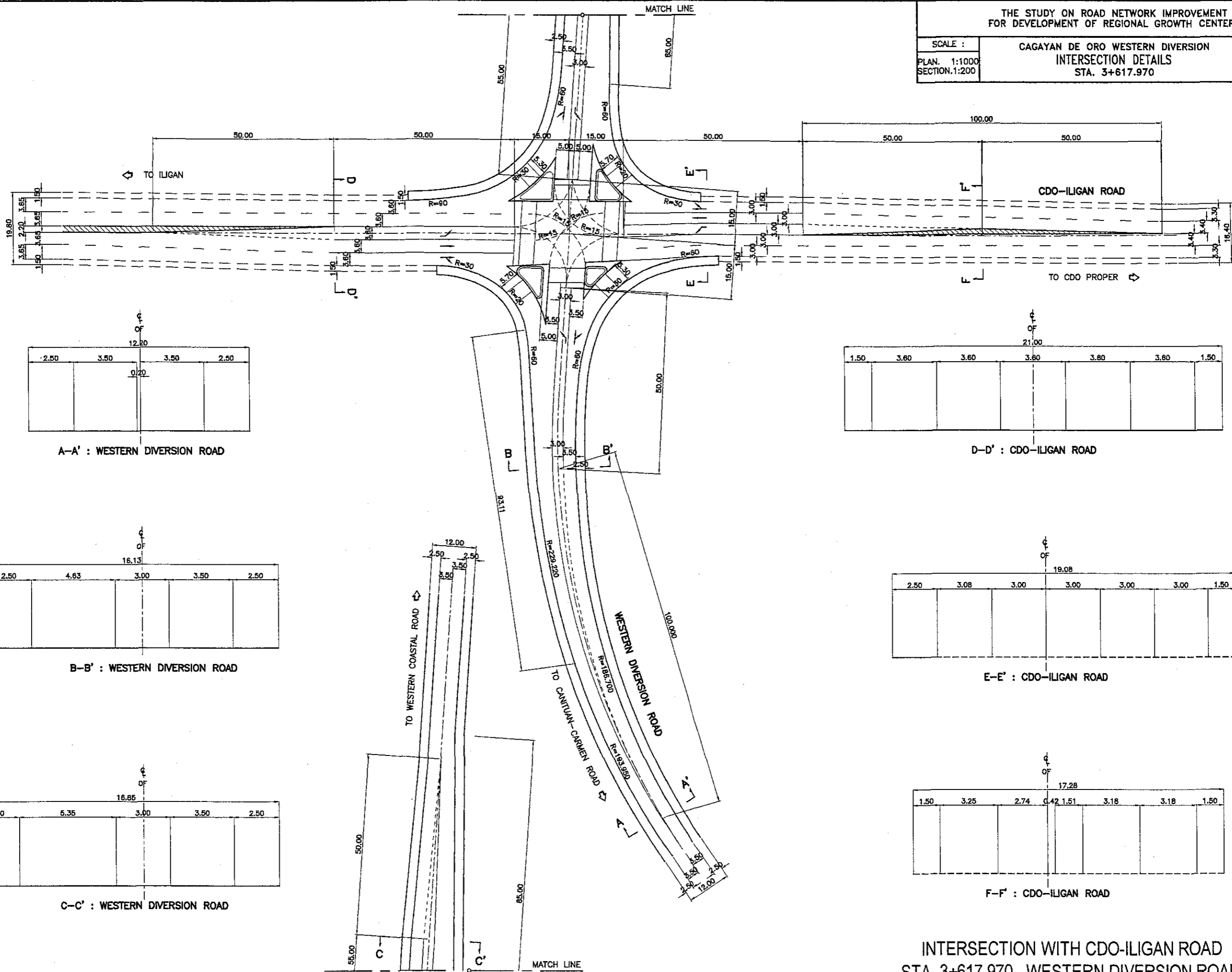
INTERSECTION WITH CANITUAN-CARMEN ROAD
STA. 0+000.000, BEG. OF WESTERN DIVERSION ROAD

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

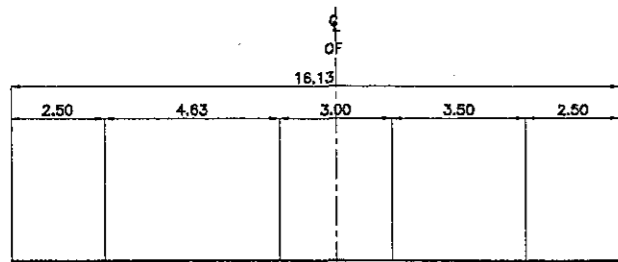
SCALE :
PLAN. 1:1000
SECTION. 1:200

CAGAYAN DE ORO WESTERN DIVERSION
INTERSECTION DETAILS
STA. 3+617.970

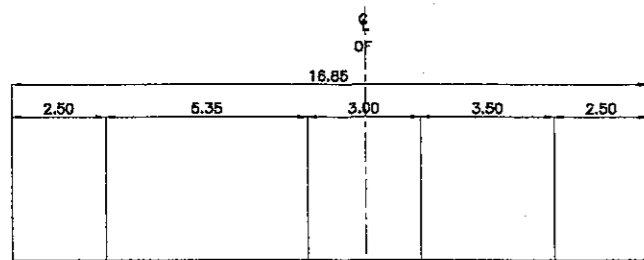
DRAWING NO.
R-10



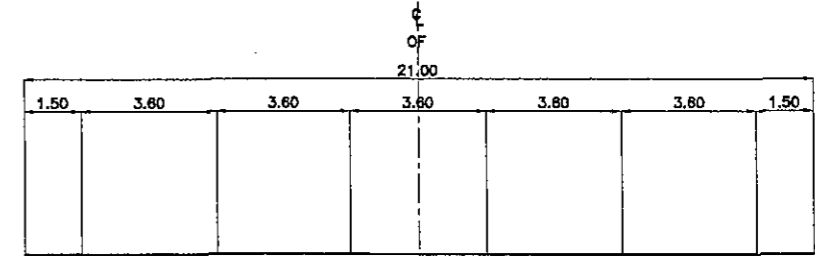
A-A' : WESTERN DIVERSION ROAD



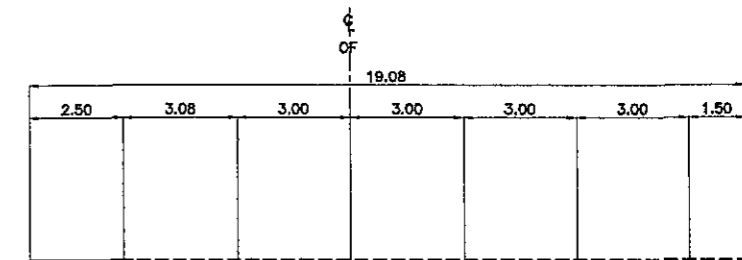
B-B' : WESTERN DIVERSION ROAD



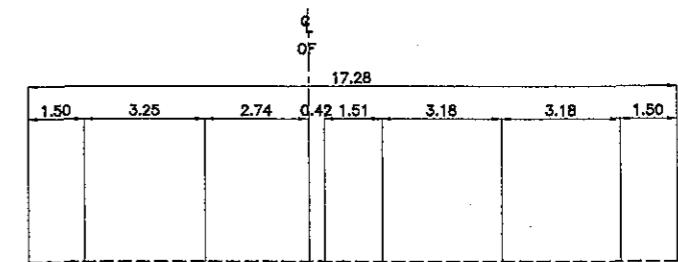
C-C' : WESTERN DIVERSION ROAD



D-D' : CDO-ILIGAN ROAD



E-E' : CDO-ILIGAN ROAD



F-F' : CDO-ILIGAN ROAD

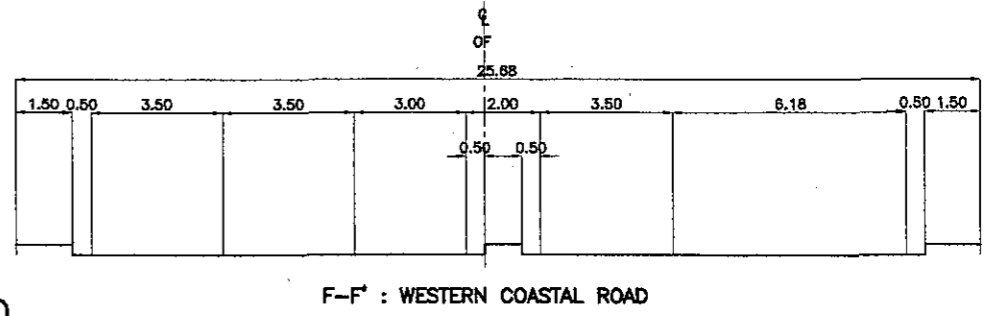
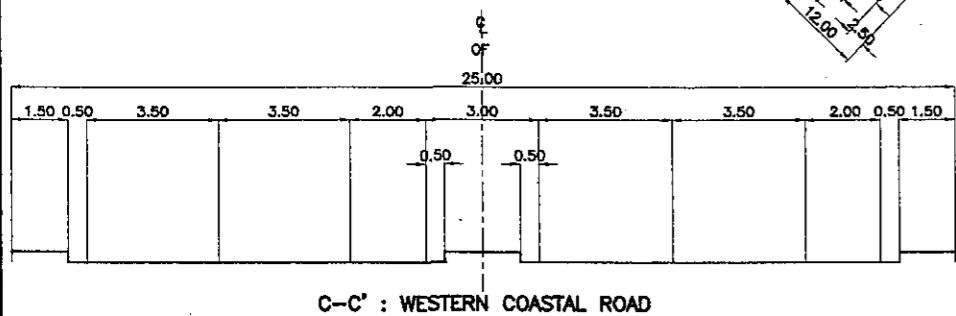
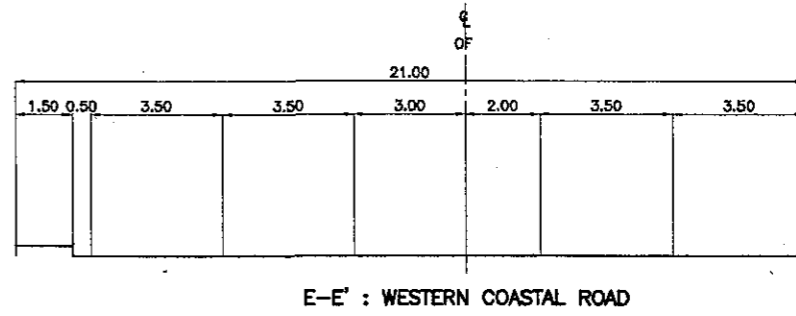
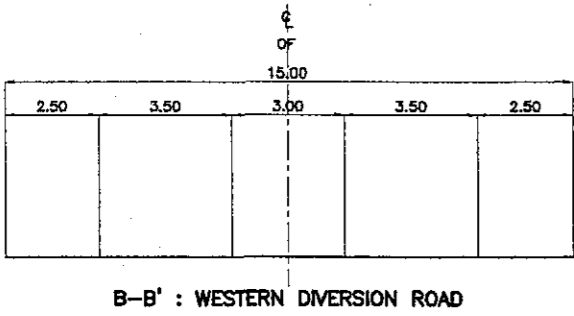
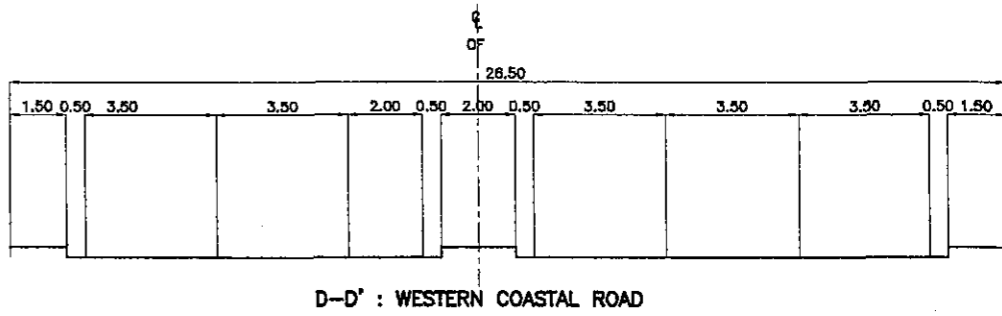
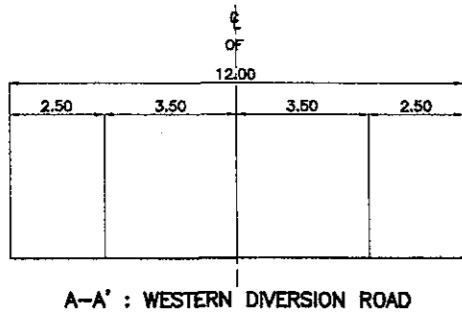
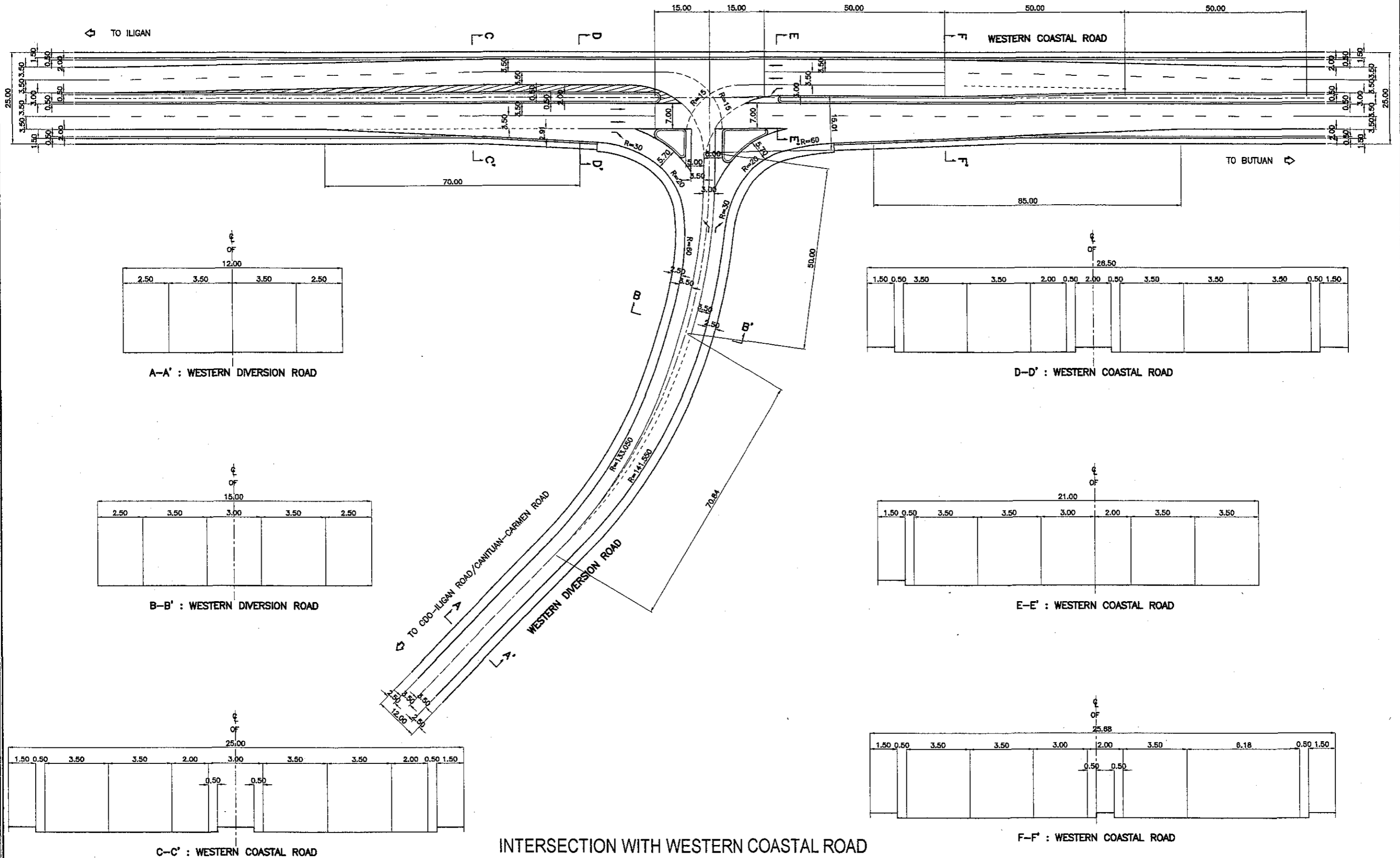
INTERSECTION WITH CDO-ILIGAN ROAD
STA. 3+617.970, WESTERN DIVERSION ROAD

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

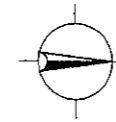
SCALE :
PLAN. 1:1000
SECTION. 1:200

CAGAYAN DE ORO WESTERN DIVERSION
INTERSECTION DETAILS
STA. 5+000.742

DRAWING NO.
R-11



INTERSECTION WITH WESTERN COASTAL ROAD
STA. 5+000.742, END OF WESTERN DIVERSION ROAD



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

SCALE :
1:20,000

CAGAYAN DE ORO WESTERN DIVERSION ROAD
LOCATION PLAN
BRIDGE LIST

DRAWING NO.
B-1

START OF WESTERN
DIVERSION ROAD
STA. 0+000.000

BRIDGE NO. D-1
STA. 0+616.200
PCDG, 1 SPAN
L = 30.00m

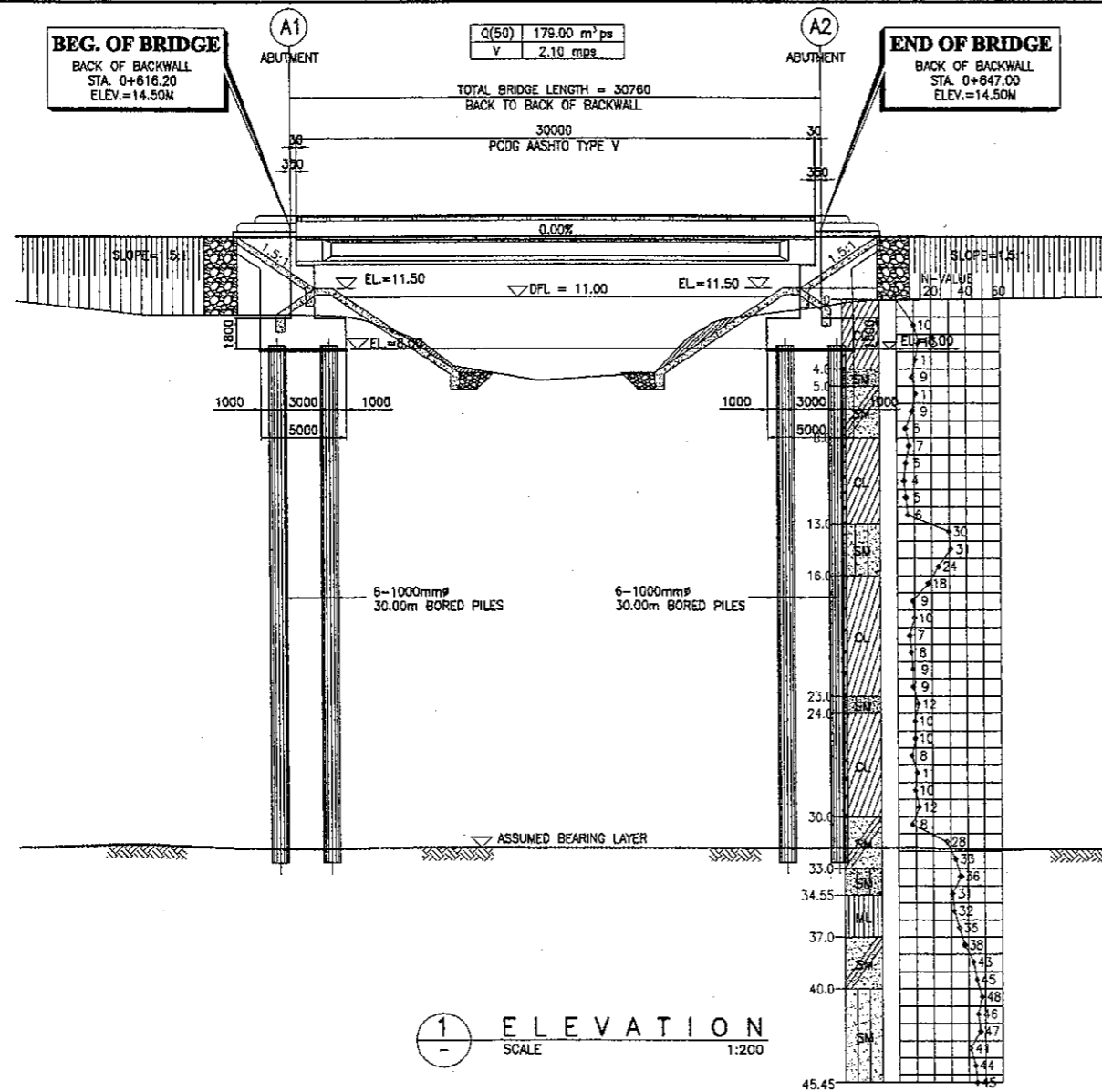
END OF WESTERN
DIVERSION ROAD
STA. 5+000.742



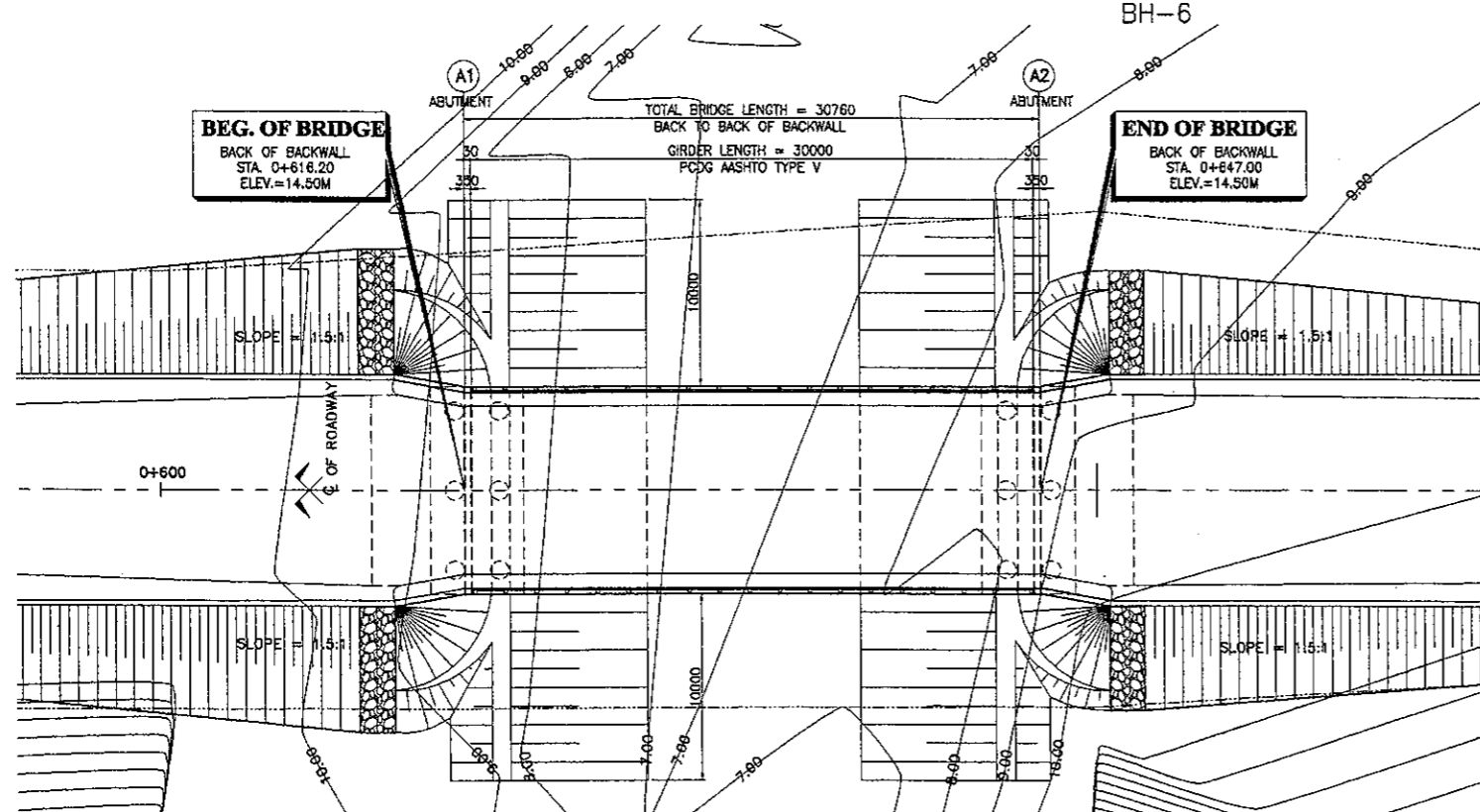
BRIDGE NO.	STATION		RIVER NAME	RIVER HYDRAULICS			PROPOSED BRIDGE				
	BEGINNING	END		ELEV. DFL	Q (cms) (50 yrs)	VELOCITY m/s	NO. OF SPAN	SPAN LENGTH (m)	BRIDGE LENGTH (m)	SKEW (deg.)	SUPERSTRUCTURE TYPE
D-1	STA. 0+616.200	STA. 0+647.000	CALANAN RIVER	11.00	179	2.10	1	30	30.00	-	PCDG, AASHTO TYPE V

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

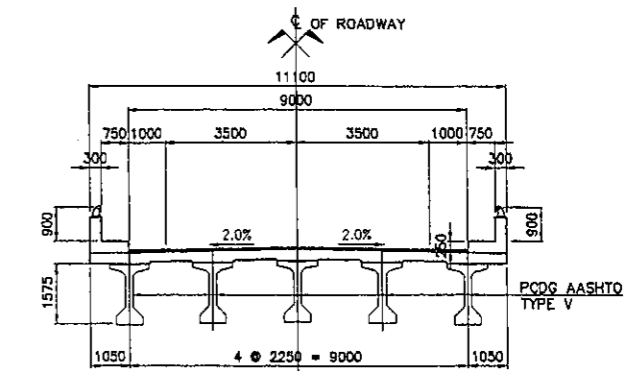
SCALE : AS SHOWN
CAGAYAN DE ORO WESTERN DIVERSION ROAD
BRIDGE NO. D-1 (CALAANAN CREEK)
STA. 0+616.20
GENERAL PLAN, ELEVATION AND SECTIONS
DRAWING NO. B-2



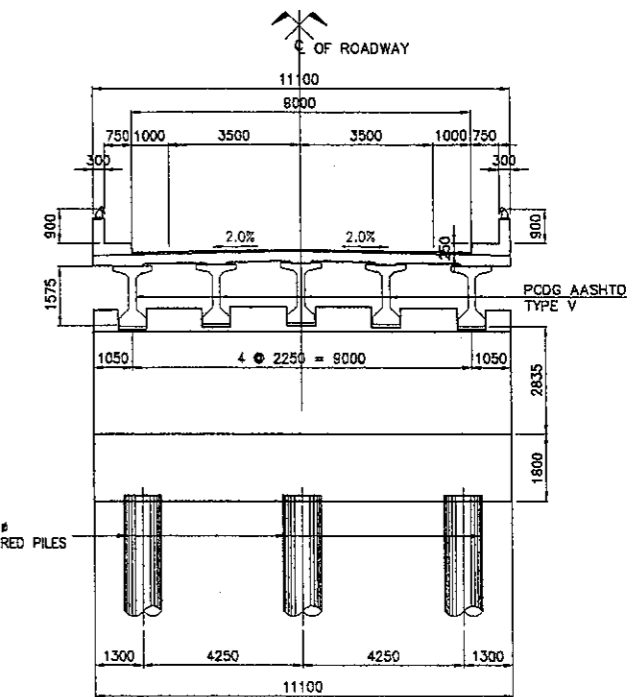
1 ELEVATION
SCALE 1:200



2 PLAN
SCALE 1:200



3 SECTION @ MIDSPAN
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	cu.m.	494.00
104(1)c	SELECTED BORROW FOR BACKFILLING	cu.m.	366.00
311(2)	PCC PAVEMENT (REINFORCED) FOR APPROACH SLAB, t = 300mm	sq.m.	100.00
400(16)a	CAST-IN-PLACE CONCRETE BORED PILES, #1000mm	m	360.00
400(16)b	CAST-IN-PLACE CONCRETE BORED PILES, #1200mm	m	-
400(16)c	CAST-IN-PLACE CONCRETE BORED PILES, #1500mm	m	-
401	CONCRETE RAILINGS	m	60.00
404(1)	REINFORCING STEEL, GRADE 40 (fy = 275MPa)	kg	1916.00
404(2)	REINFORCING STEEL, GRADE 60 (fy = 415MPa)	kg	77526.00
404(3)	PRESTRESSING STEEL, GRADE 270 (Fu = 1860MPa)	kg	-
405(1)	STRUCTURAL CONCRETE CLASS "A1" FOR SUBSTRUCTURE (fc' = 24MPa)	cu.m.	324.00
405(2)	STRUCTURAL CONCRETE CLASS "A2" FOR SUPERSTRUCTURE (fc' = 24MPa)	cu.m.	125.00
405(3)	STRUCTURAL CONCRETE CLASS "A3" FOR OTHERS (fc' = 21MPa)	cu.m.	14.00
405(6)	STRUCTURAL CONCRETE "LEAN CONCRETE" (fc' = 17MPa)	cu.m.	12.00
406(1)g	PRESTRESSED CONCRETE GIRDER, AASHTO TYPE V, L=30.00M	ea	5.00
407(1)a	ELASTOMERIC BEARING PAD, 400 x 350 x 60 (DURO 60)	ea	10.00
407(2)b	EXPANSION JOINT, (±50mm MOVEMENT)	m	18.00
407(4)	METAL DRAIN (#150mm G.I. DRAIN PIPE)	m	17.00
504(5)	GROUTED RIPRAP SLOPE PROTECTION	cu.m.	12.20
506	LOOSE BOULDER APRON (HAND LAID ROCK, #300mm MIN., S.G. = 2.65)	cu.m.	187.00
510	RUBBLE CONCRETE SLOPE PROTECTION, t=350mm	cu.m.	345.00

