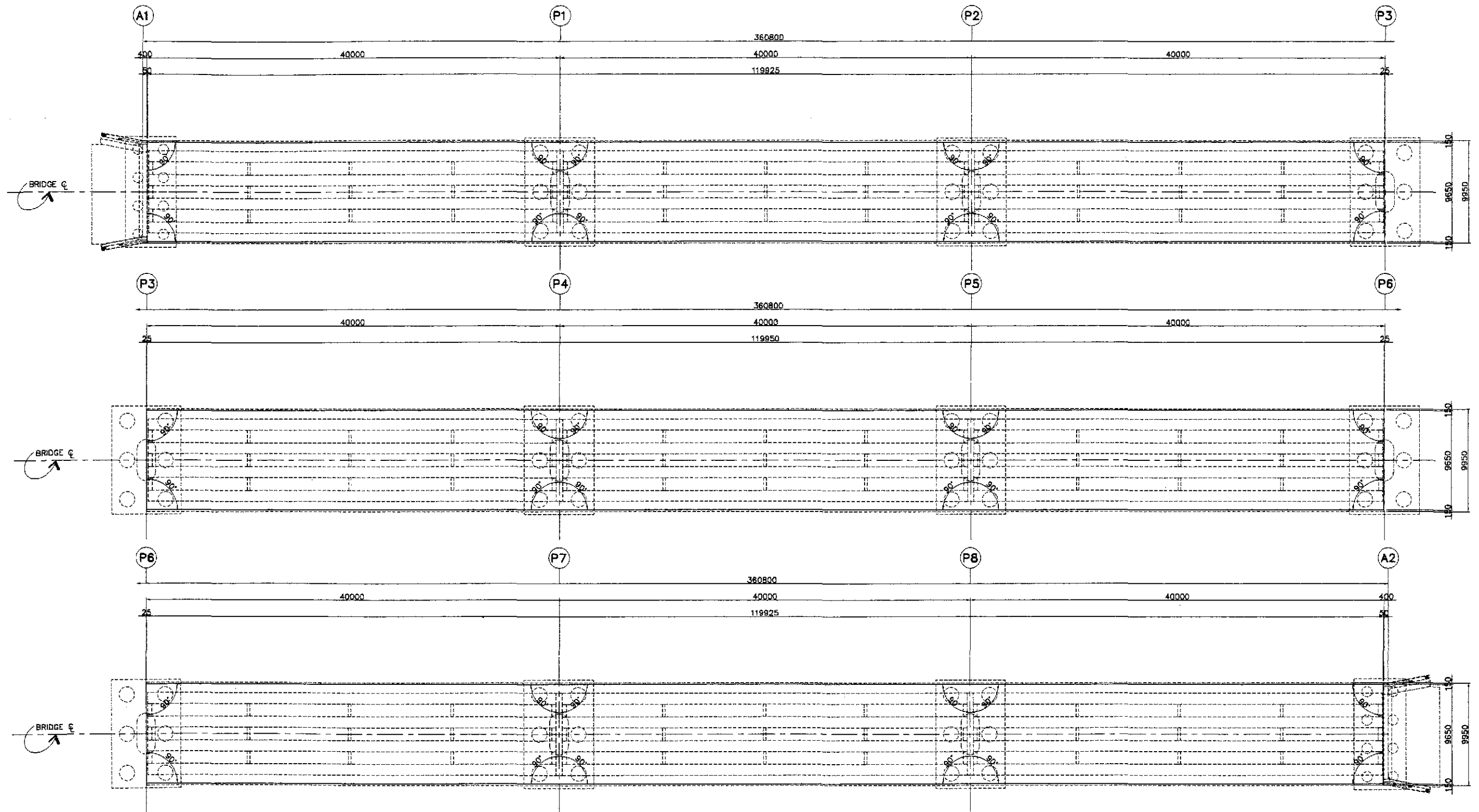
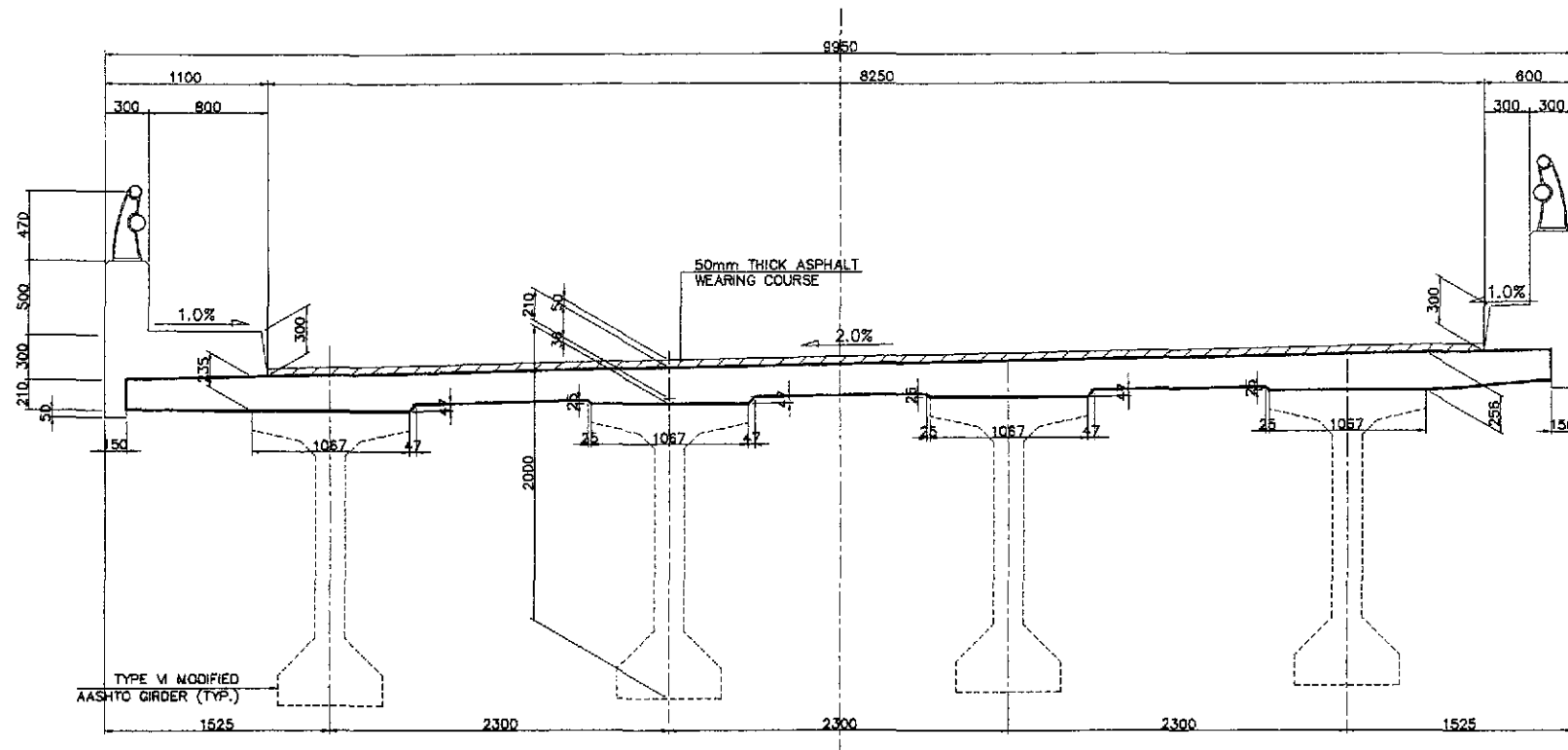


LAYOUT AND DIMENSIONS

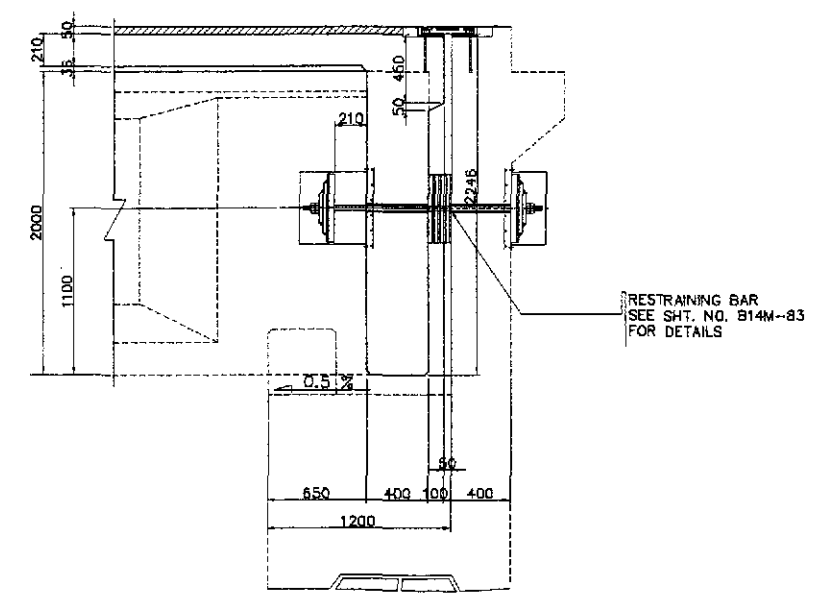


A DECK SLAB LAYOUT PLAN (ABUT. 1 TO ABUT.2)
SCALE 1:200

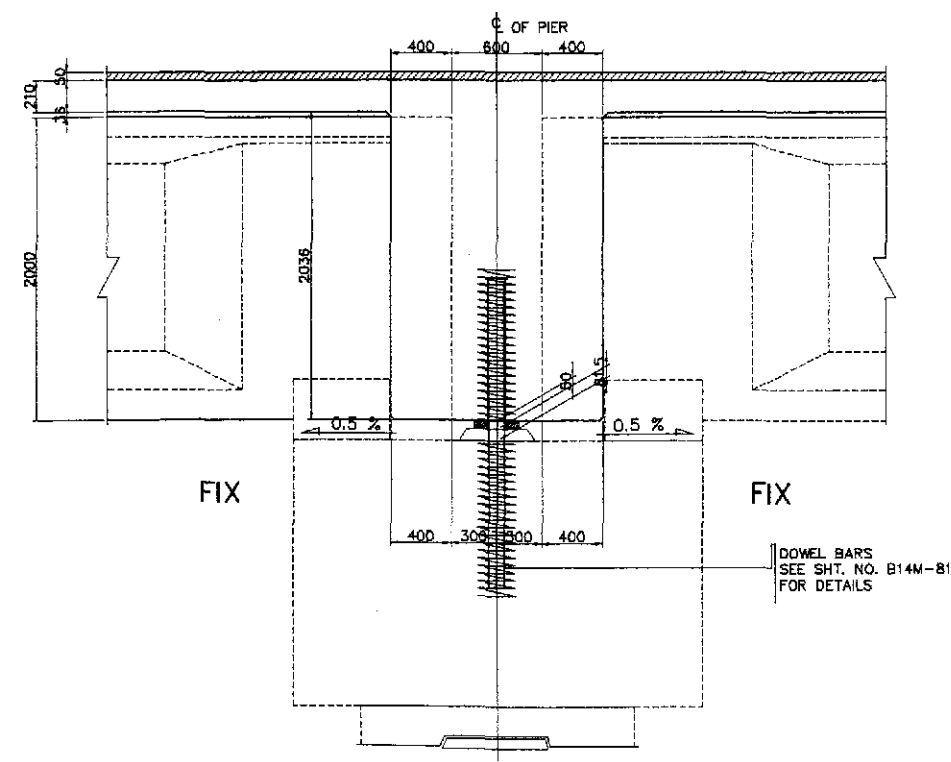
	DATE	SIGNATURE	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :	
	DESIGNED	10/17/02	P. DE JESUS	BUREAU OF DESIGN Submitted By: DANILO C. TRAJANO Project Director			THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Paridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE DECK SLAB LAYOUT PLAN (ABUT. 1 - ABUT. 2) - 1 (ULTIMATE STAGE)	B14L-21
	CHECKED	10/19/02	J. MONTES	OFFICE OF THE SECRETARY Reviewed By: ADRIANO M. DORCY Chief, Bridges Division Recommended By: GILBERTO S. REYES Director IV (CIC) MANUEL M. BONDAN Undersecretary Approved By: SIMEON A. DATUMANONG Secretary						
SUBMITTED	10/21/02	Mr. Reyes TEAM LEADER								



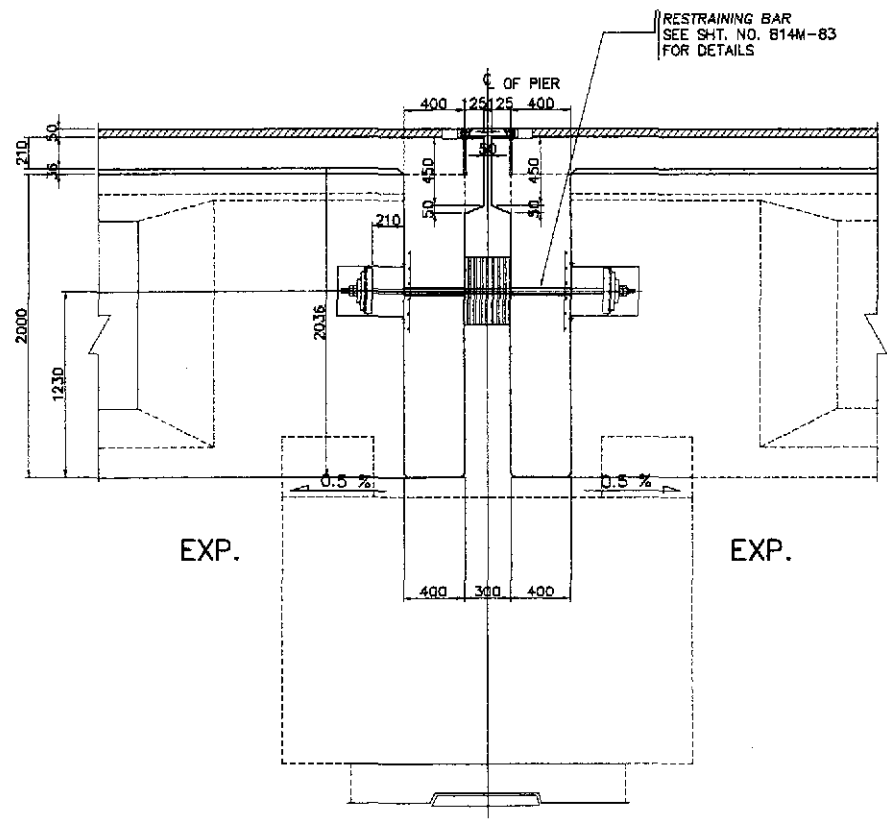
A TYPICAL SECTION
SCALE 1:25



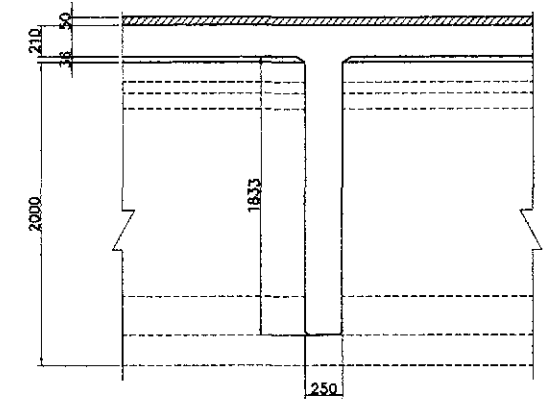
D SECTION @ END DIAPHRAGM (ABUTMENT)
SCALE 1:25



B SECTION @ END DIAPHRAGM (FIX-FIX PIERS)
SCALE 1:25



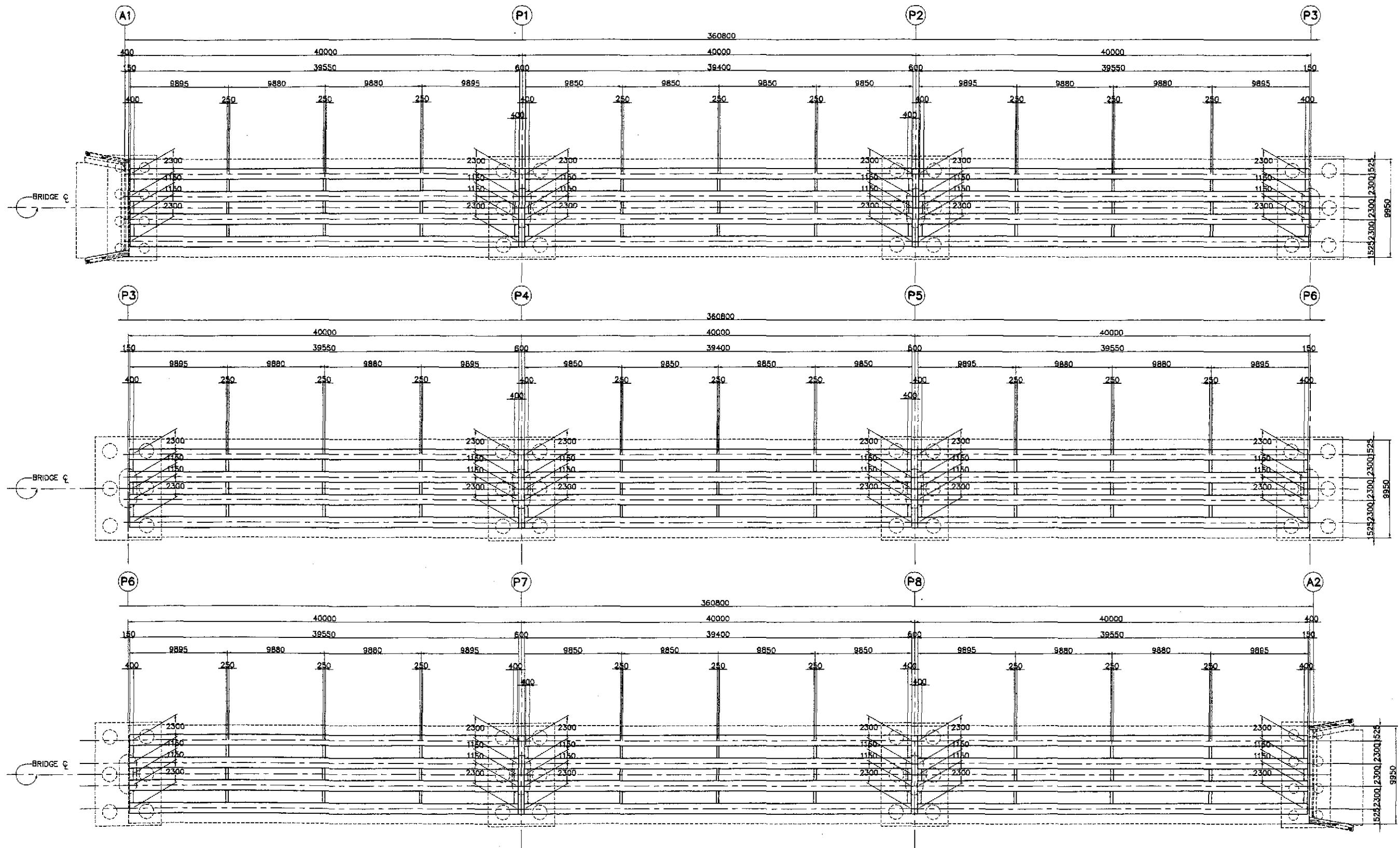
C SECTION @ END DIAPHRAGM (EXP-EXP PIERS)
SCALE 1:25



E SECTION @ INTERMEDIATE DIAPHRAGM
SCALE 1:25

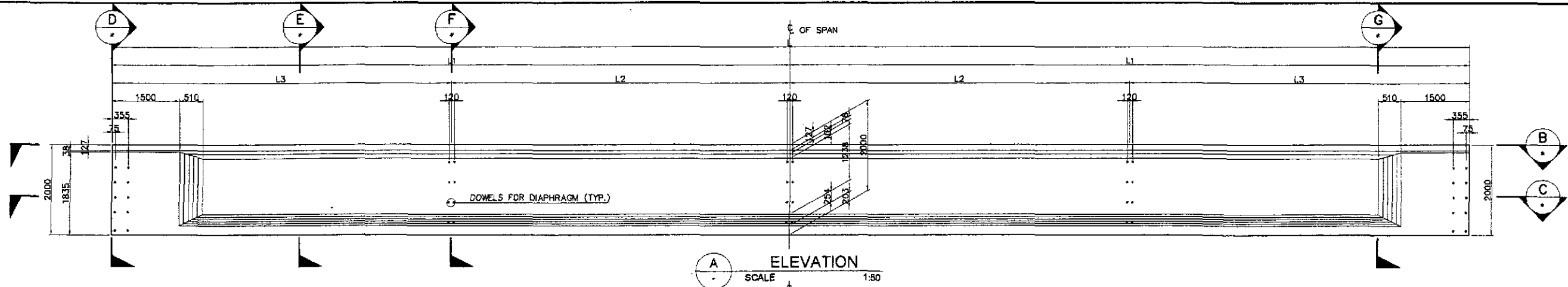
1 TYPICAL SLAB DIMENSIONS
SCALE AS SHOWN

	DESIGNED	10/17/02	H. P. DE JESUS		REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE : AS SHOWN FULL SIZE A1	SHEET CONTENTS : BRIDGE NO.14 TALAVERA RIVER BRIDGE TYPICAL SLAB DIMENSIONS (ULTIMATE STAGE)	SHEET NO. : B14L-22
	CHECKED	10/19/02	J. S. SERRANO		BUREAU OF DESIGN						
	SUBMITTED	10/21/02	M. C. TRAJANO	PUHL - PMO	Submitted By:	Reviewed By:	Recommended By:	Approved By:			
			DANILO C. TRAJANO Project Director		ADRIANO M. DOROY Chief, Bridges Division	GILBERTO S. REYES Director IV (CIC)	MANUEL M. BONDAN Undersecretary	SIMEON A. DATUMANONG Secretary			

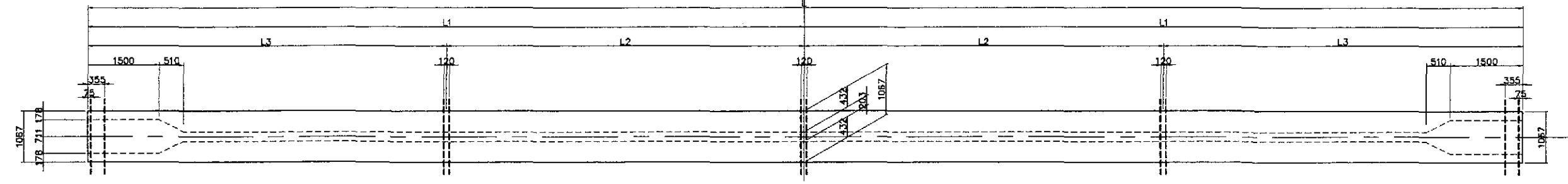


A GIRDER LAYOUT PLAN (ABUT. 1 TO ABUT. 2)
SCALE 1:200

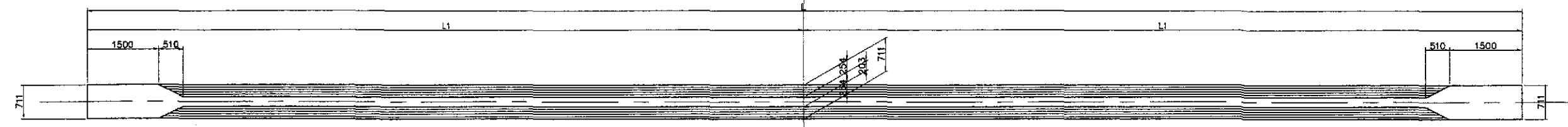
	DATE	SIGNATURE	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :
	DESIGNED	10/17/02	F. P. DE JESUS	BUREAU OF DESIGN		THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Pardel, Cabanatuan and San Jose Bypasses)	AS SHOWN	BRIDGE NO. 14 TALAVERA RIVER BRIDGE GIRDER LAYOUT PLAN (A1 TO A2) (ULTIMATE STAGE)	B14L-23
	CHECKED	10/19/02	J. C. SANTOS	Submitted By:	Reviewed By:	Recommended By:	Approved By:		
SUBMITTED	10/21/02	M. R. RIVERA	DANILO C. TRAJANO Project Director	ADRIANO M. DOROY Chief, Bridges Division	GILBERTO S. REYES Director IV (GIC)	MANUEL M. BONGAN Undersecretary	SIMEON A. DATUMANONG Secretary		
						CABANATUAN BYPASS - CONTRACT PACKAGE IV	FULL SIZE A1		



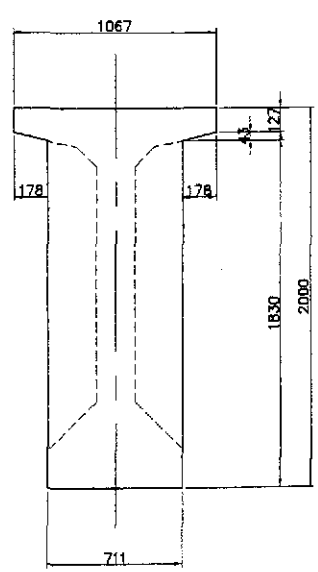
A ELEVATION
SCALE 1:50



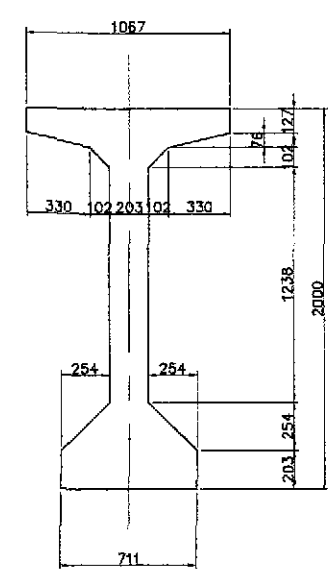
B SECTION
SCALE 1:50



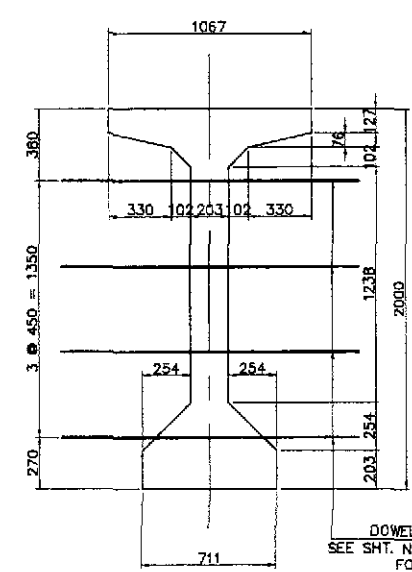
C SECTION
SCALE 1:50



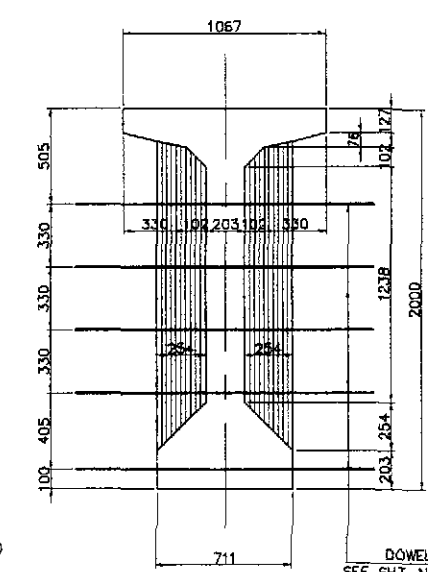
D SECTION
SCALE 1:20



E SECTION
SCALE 1:20



F SECTION
SCALE 1:20



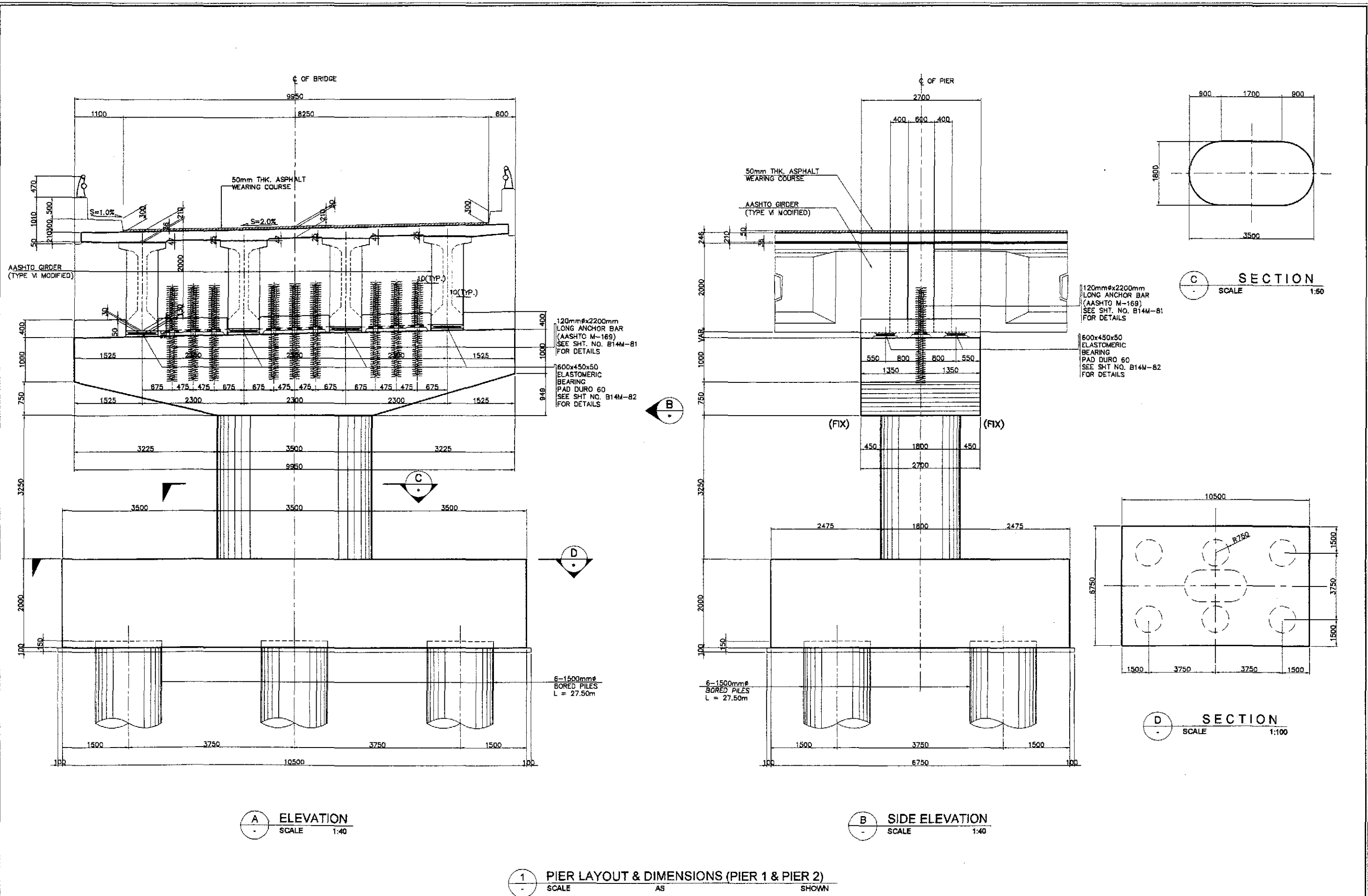
G SECTION
SCALE 1:20

SCHEDULE OF DIMENSIONS				
LOCATION	L	L1	L2	L3
ABUT. 1 to PIER 1	39550	19775	9880	9895
PIER 1 to PIER 2	39400	19700	9850	9850
PIER 2 to PIER 3	39550	19775	9880	9895
PIER 3 to PIER 4	39550	19775	9880	9895
PIER 4 to PIER 5	39400	19700	9850	9850
PIER 5 to PIER 6	39550	19775	9880	9895
PIER 6 to PIER 7	39550	19775	9880	9895
PIER 7 to PIER 8	39400	19700	9850	9850
PIER 8 to ABUT. 2	39550	19775	9880	9895

NOTE : DOWEL BARS FOR DIAPHRAGM SHALL BE EMBEDDED ON THE GIRDER DURING CASTING. NO HOLES WILL BE PERMITTED ON THE GIRDER FOR THESE DOWEL BARS.

1 LAYOUT AND DIMENSION (AASHTO GIRDER TYPE - VI MODIFIED)
SCALE AS SHOWN

	DESIGNED	10/07/02			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :
	CHECKED	10/19/02	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS		THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses)	AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE LAYOUT & DIMENSIONS (AASHTO GIRDER TYPE VI MODIFIED) (ULTIMATE STAGE)	B14 L-24
	SUBMITTED	10/21/02	BUREAU OF DESIGN OFFICE OF THE SECRETARY		CABANATUAN BYPASS - CONTRACT PACKAGE IV	FULL SIZE A1		

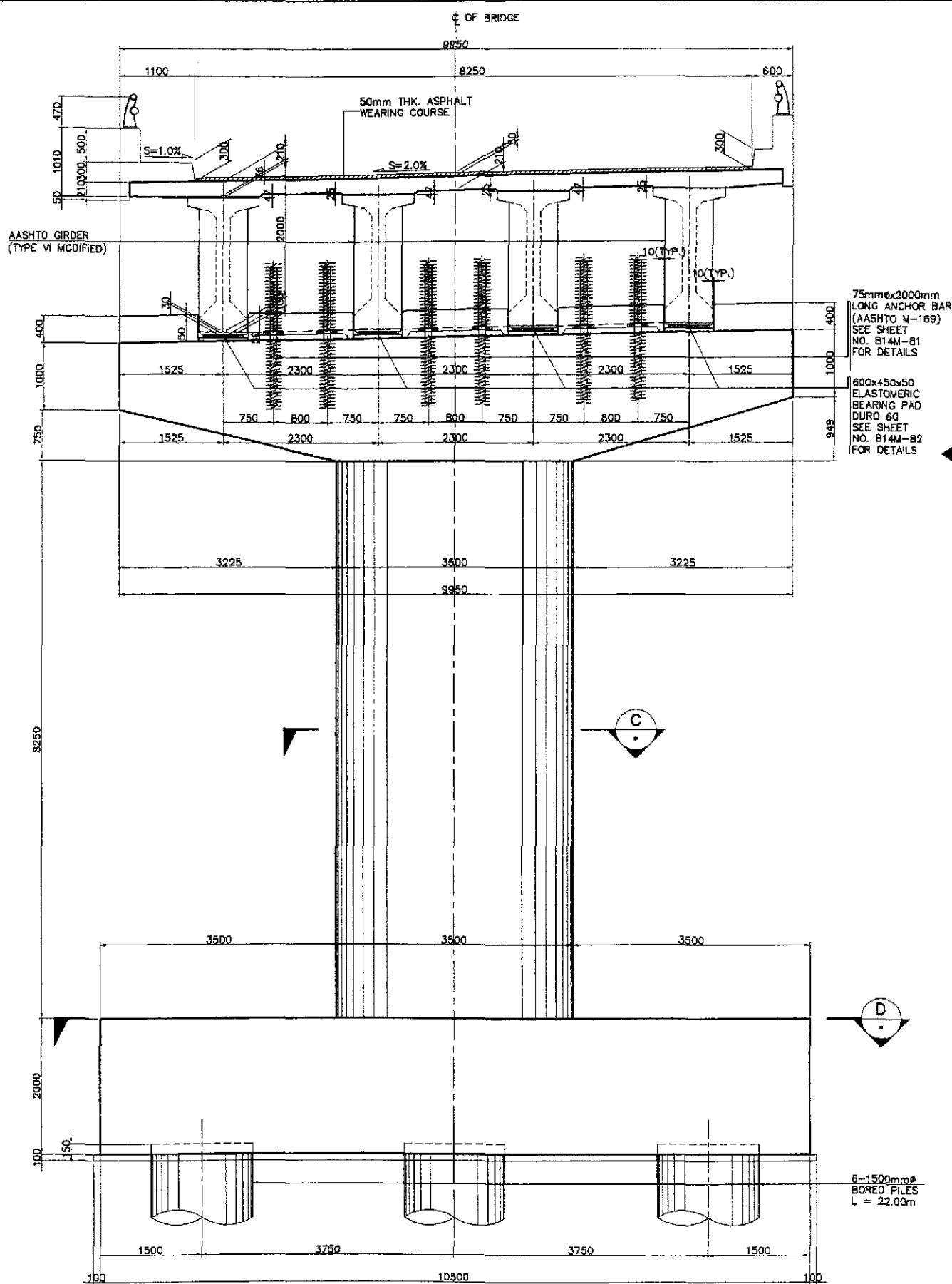


A ELEVATION
SCALE 1:40

B SIDE ELEVATION
SCALE 1:40

1 PIER LAYOUT & DIMENSIONS (PIER 1 & PIER 2)
SCALE AS SHOWN

	DATE	SIGNATURE	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :	
	DESIGNED	10/17/02	F. P. DE JESUS	BUREAU OF DESIGN			THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Piaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE PIER LAYOUT & DIMENSIONS (PIER 1 & PIER 2) (ULTIMATE STAGE)	B14L-25
	CHECKED	10/19/02	J. SANTOS	OFFICE OF THE SECRETARY						
SUBMITTED	10/21/02	M. BARRERA TEAM LEADER	Submitted By: DANILLO C. TRAJANO Project Director	Reviewed By: ADRIANO M. DORGY Chief, Bridges Division	Recommended By: GILBERTO S. REYES Director IV (CIC)	Approved By: MANUEL M. BONGUAN Undersecretary				
							FULL SIZE A1			

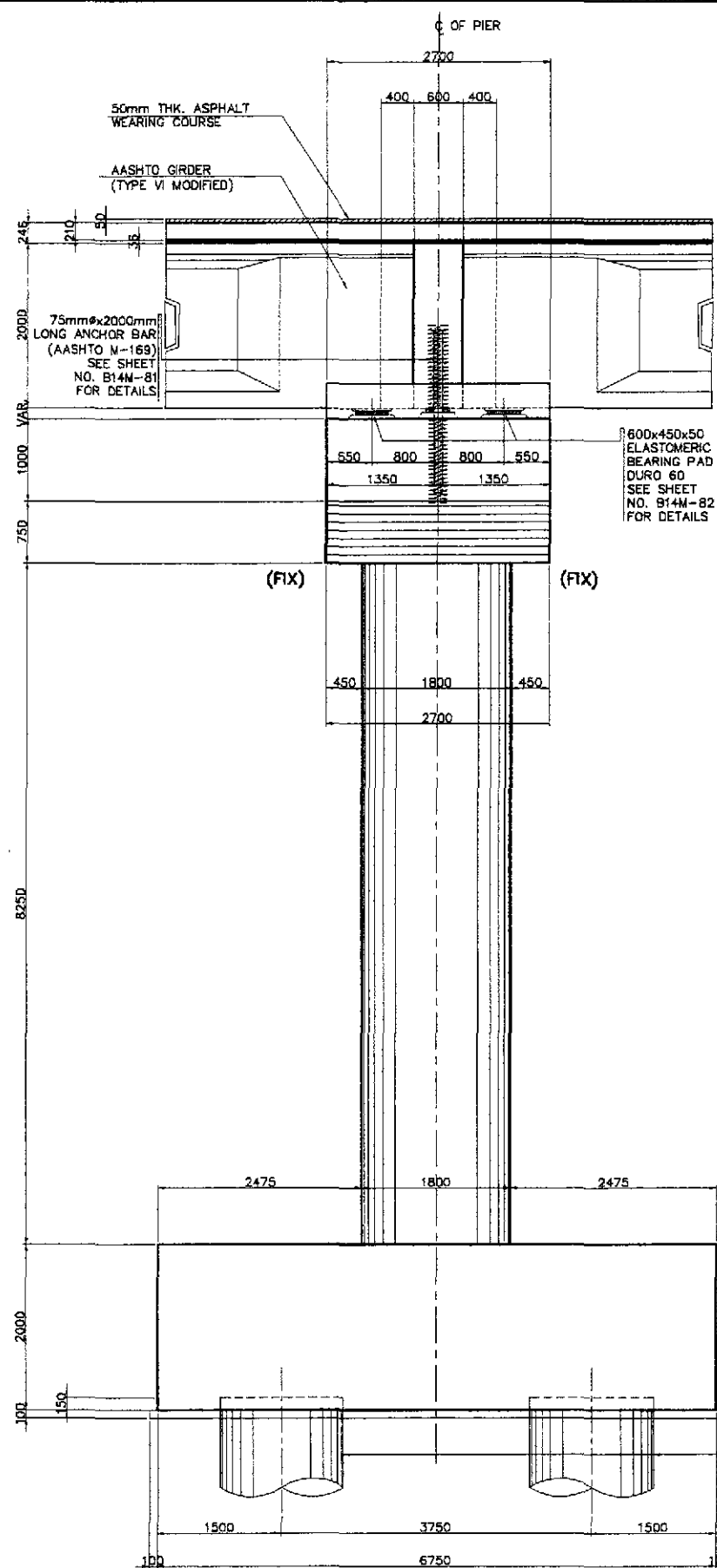


A ELEVATION
SCALE 1:40

75mmx2000mm LONG ANCHOR BAR (AASHTO M-169) SEE SHEET NO. B14M-81 FOR DETAILS

600x450x50 ELASTOMERIC BEARING PAD DURO 60 SEE SHEET NO. B14M-82 FOR DETAILS

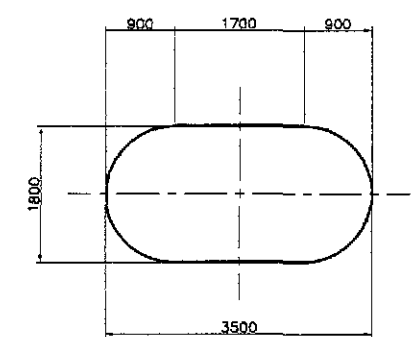
6-1500mm ϕ BORED PILES L = 22.00m



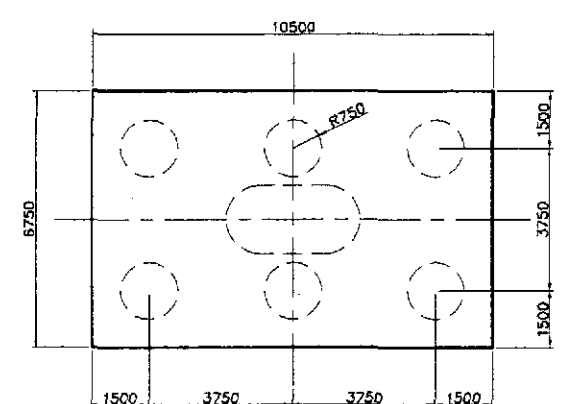
B SIDE ELEVATION
SCALE 1:40

600x450x50 ELASTOMERIC BEARING PAD DURO 60 SEE SHEET NO. B14M-82 FOR DETAILS

6-1500mm ϕ BORED PILES L = 22.00m



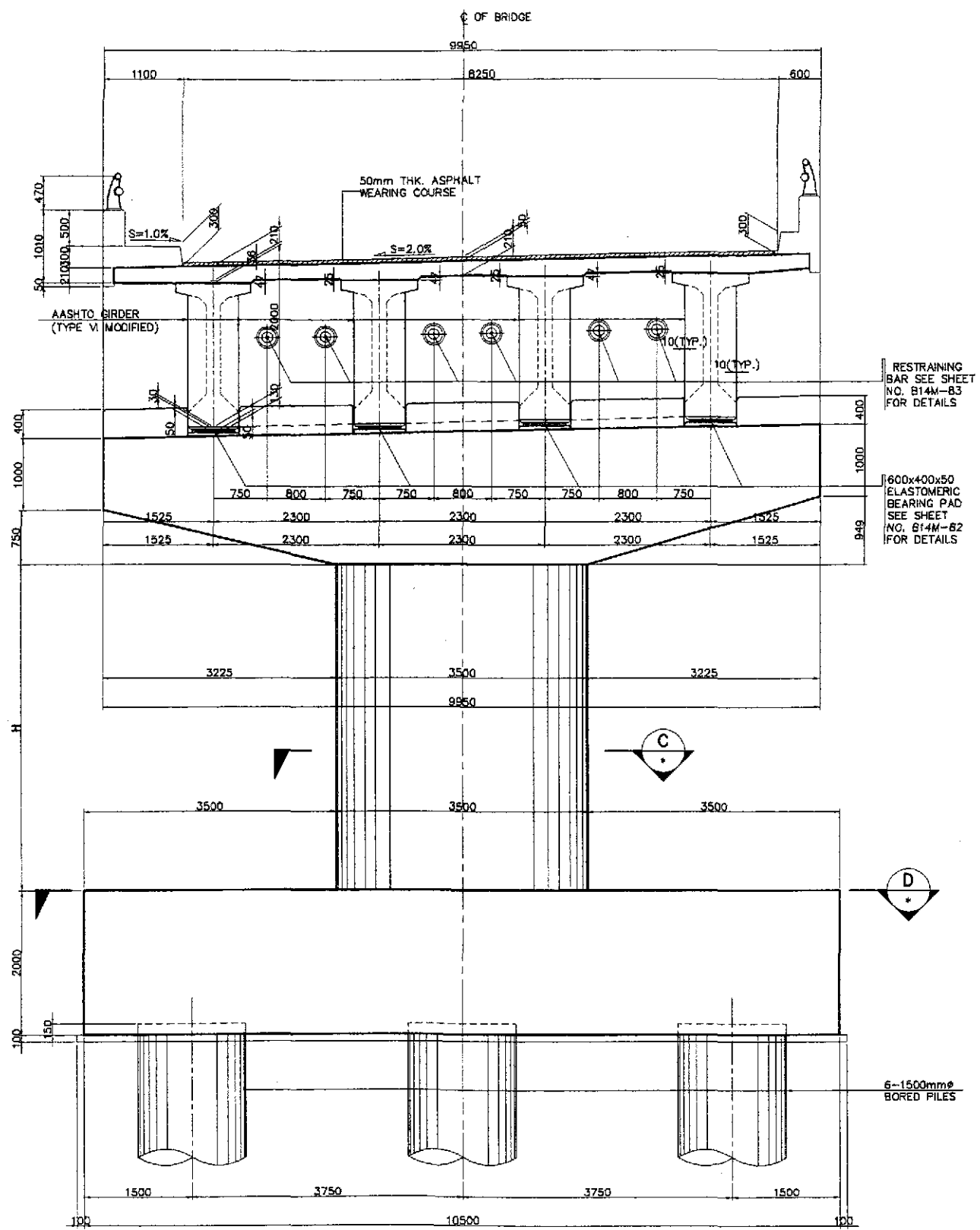
C SECTION
SCALE 1:50



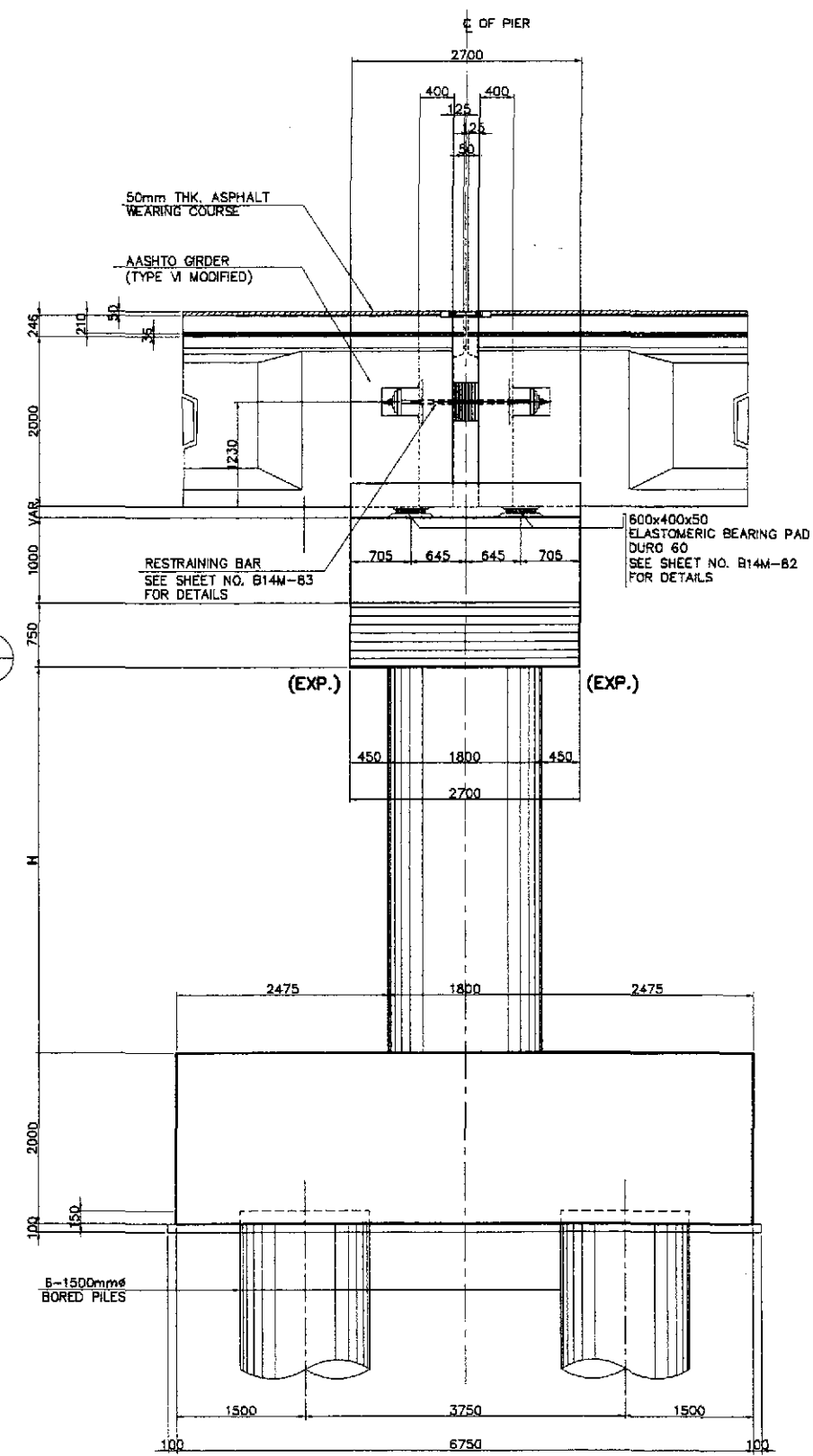
D SECTION
SCALE 1:100

1 PIER LAYOUT & DIMENSIONS (P4, P5, P7 & P8)
SCALE AS SHOWN

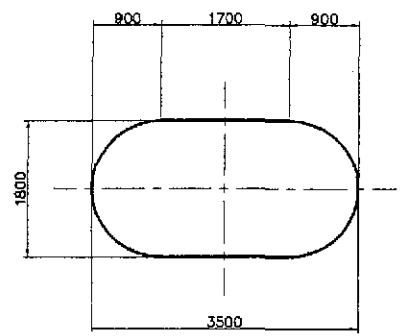
	DATE	SIGNATURE	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :
	DESIGNED	10/17/02	P. DE JESUS	BUREAU OF DESIGN			AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE PIER LAYOUT & DIMENSIONS (P4, P5, P7 & P8) (ULTIMATE STAGE)	B14L-26
	CHECKED	10/19/02	J. P. ...	Submitted By:	Reviewed By:	Recommended By:			
SUBMITTED	10/21/02	M. ...	DANILO C. TRAJANO Project Director	ADRIANO M. DORAY Chief, Bridges Division	GLBERTO S. REYES Director IV (GIC)	MANUEL M. BONDAN Undersecretary			
THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV						FULL SIZE A1			



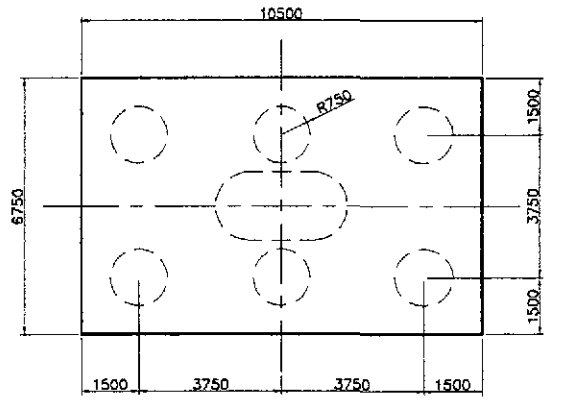
A ELEVATION
SCALE 1:40



B SIDE ELEVATION
SCALE 1:40



C SECTION
SCALE 1:50



D SECTION
SCALE 1:100

1 PIER LAYOUT & DIMENSIONS (P3 & P6)
SCALE AS SHOWN

SCHEDULE OF DIMENSIONS		
LOCATION	H	PILE LENGTH (m)
PIER 3	3250	27.50
PIER 6	8250	22.00

JICA
JAPAN INTERNATIONAL COOPERATION AGENCY
KATAHIRA & ENGINEERS
YEO YACHIYO ENGINEERING CO., LTD.

DATE	SIGNATURE
DESIGNED 10/17/02	F. P. DE JESUS
CHECKED 10/19/02	J. SANTOS
SUBMITTED 10/21/02	<i>[Signature]</i>

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

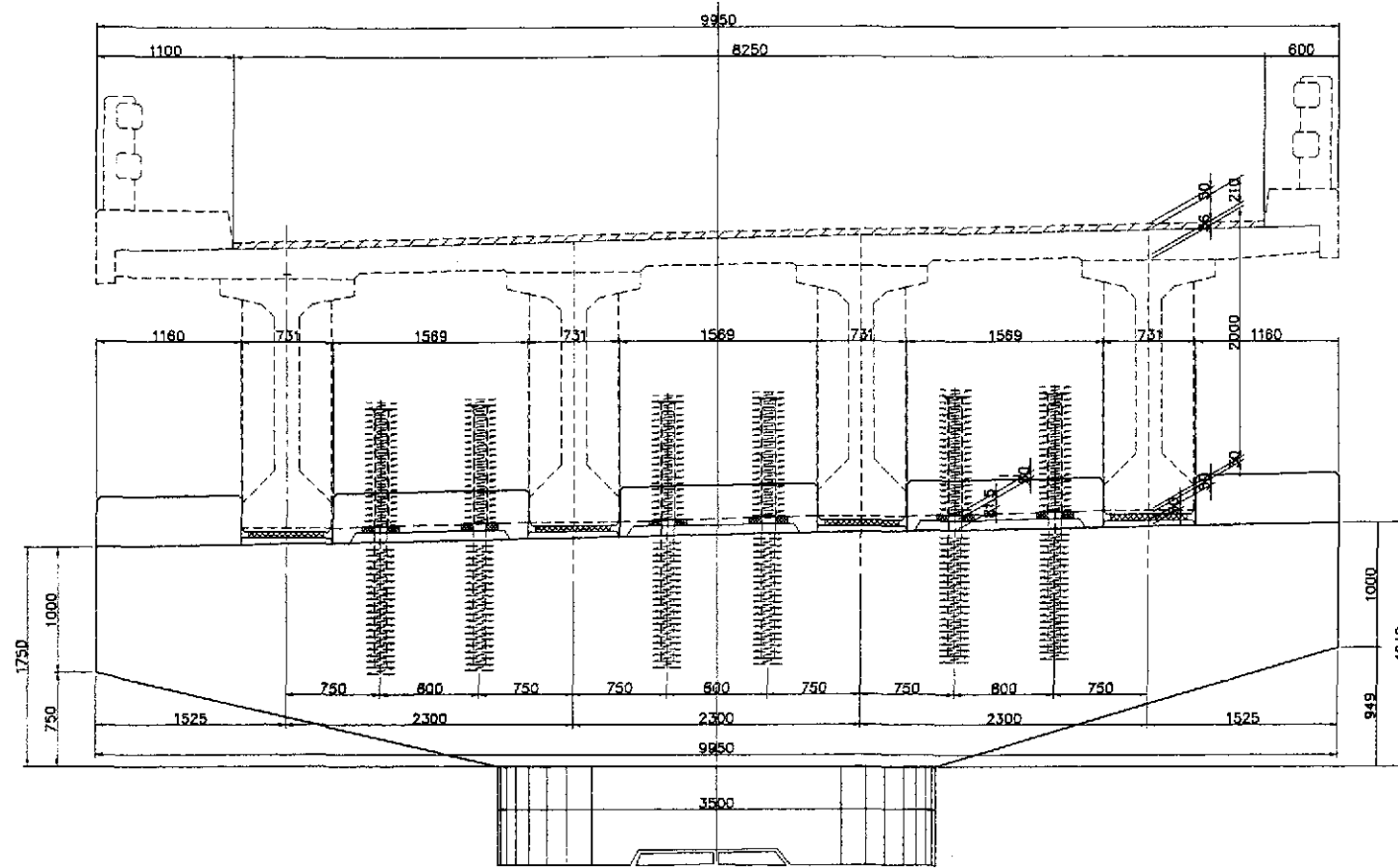
BUREAU OF DESIGN		OFFICE OF THE SECRETARY		
Submitted By: PJHL - PMO	Reviewed By: ADRIANO M. DORGY	Recommended By: GILBERTO S. REYES	Recommended By: MANUEL M. BONDAN	Approved By: SIMEON A. DATUMANONG
DANILO C. TRAJANO Project Director	ADRIANO M. DORGY Chief, Bridges Division	GILBERTO S. REYES Director IV (OIC)	MANUEL M. BONDAN Undersecretary	SIMEON A. DATUMANONG Secretary

PROJECT AND LOCATION :
THE DETAILED DESIGN STUDY ON
UPGRADING INTER-URBAN HIGHWAY SYSTEM
ALONG THE PAN-PHILIPPINE HIGHWAY
(Plaridel, Cabanatuan and San Jose Bypasses)
CABANATUAN BYPASS - CONTRACT PACKAGE IV

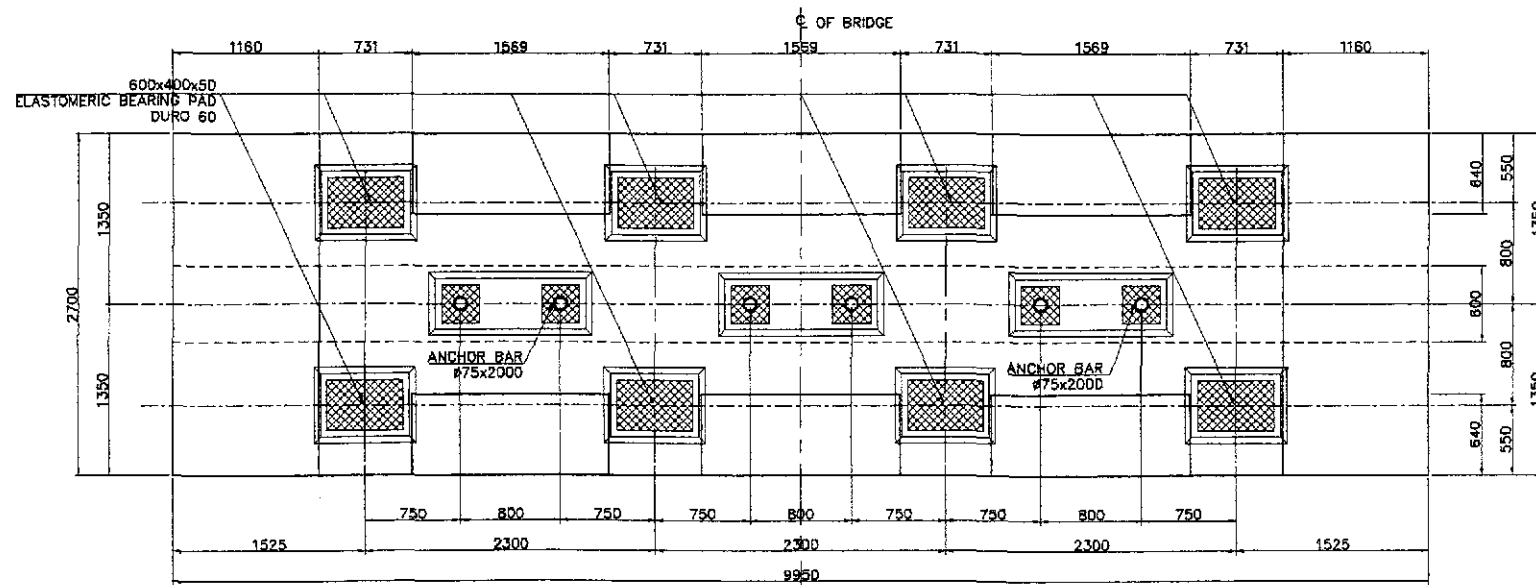
SCALE :
AS SHOWN
FULL SIZE A1

SHEET CONTENTS :
BRIDGE NO.14 TALAVERA RIVER BRIDGE
PIER LAYOUT & DIMENSIONS
(P3 & P6)
(ULTIMATE STAGE)

SHEET NO. :
B14L-27

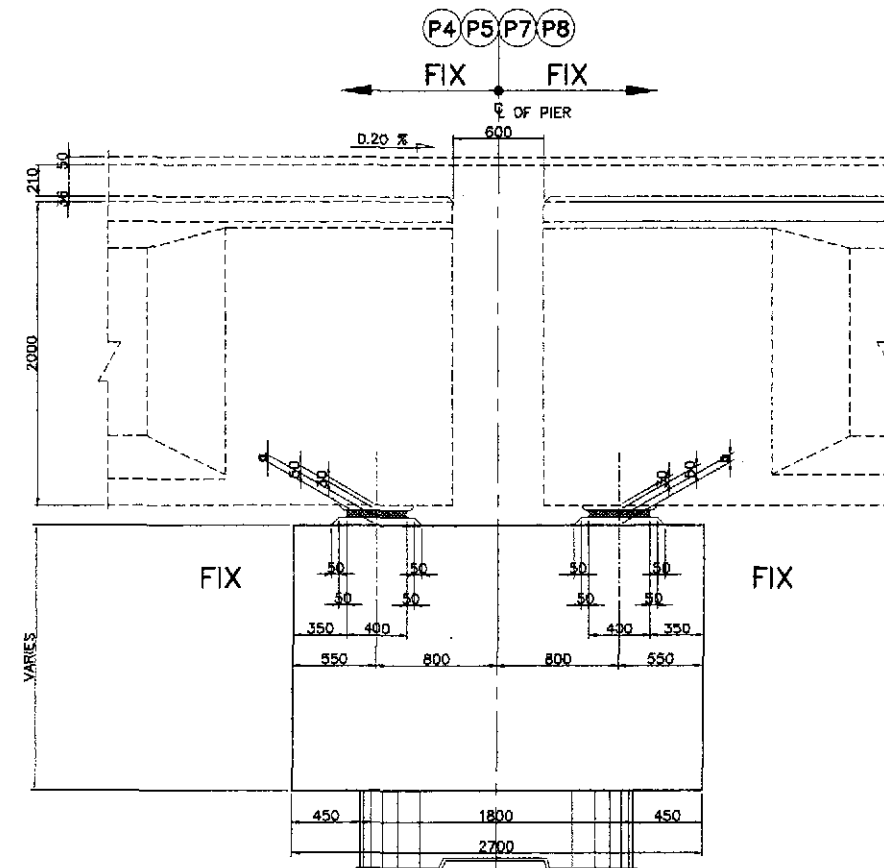


A ELEVATION
SCALE 1:30

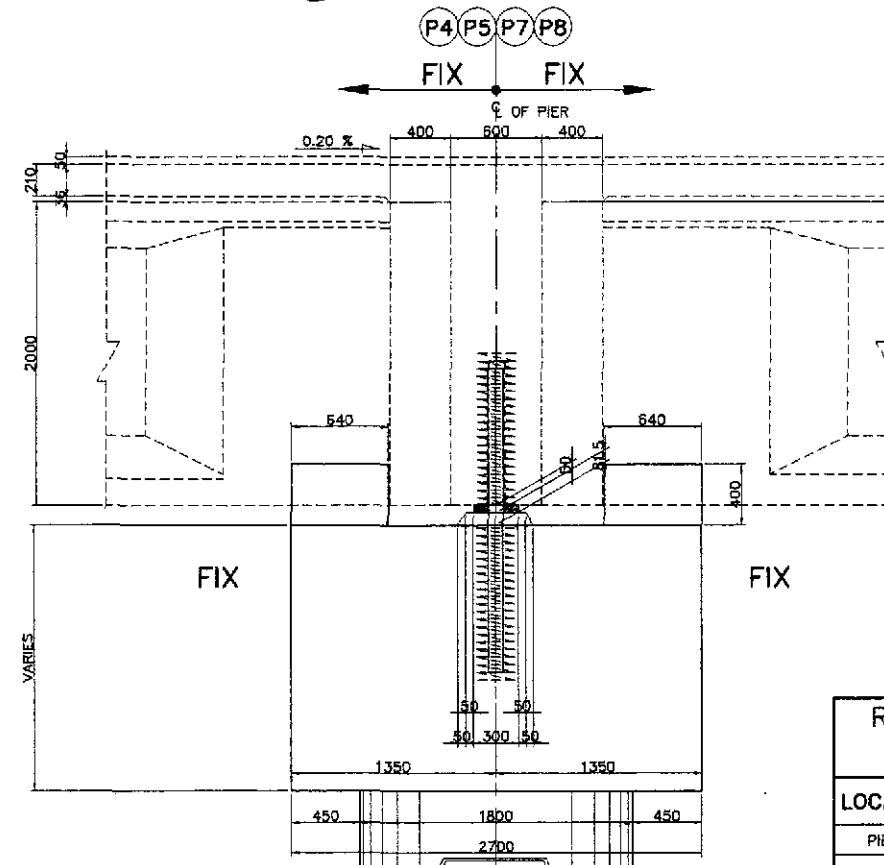


B PLAN
SCALE 1:30

1 COPING LAYOUT AND DIMENSIONS (FIXED PIERS-PIERS P4, P5, P7 & P8)
SCALE AS SHOWN



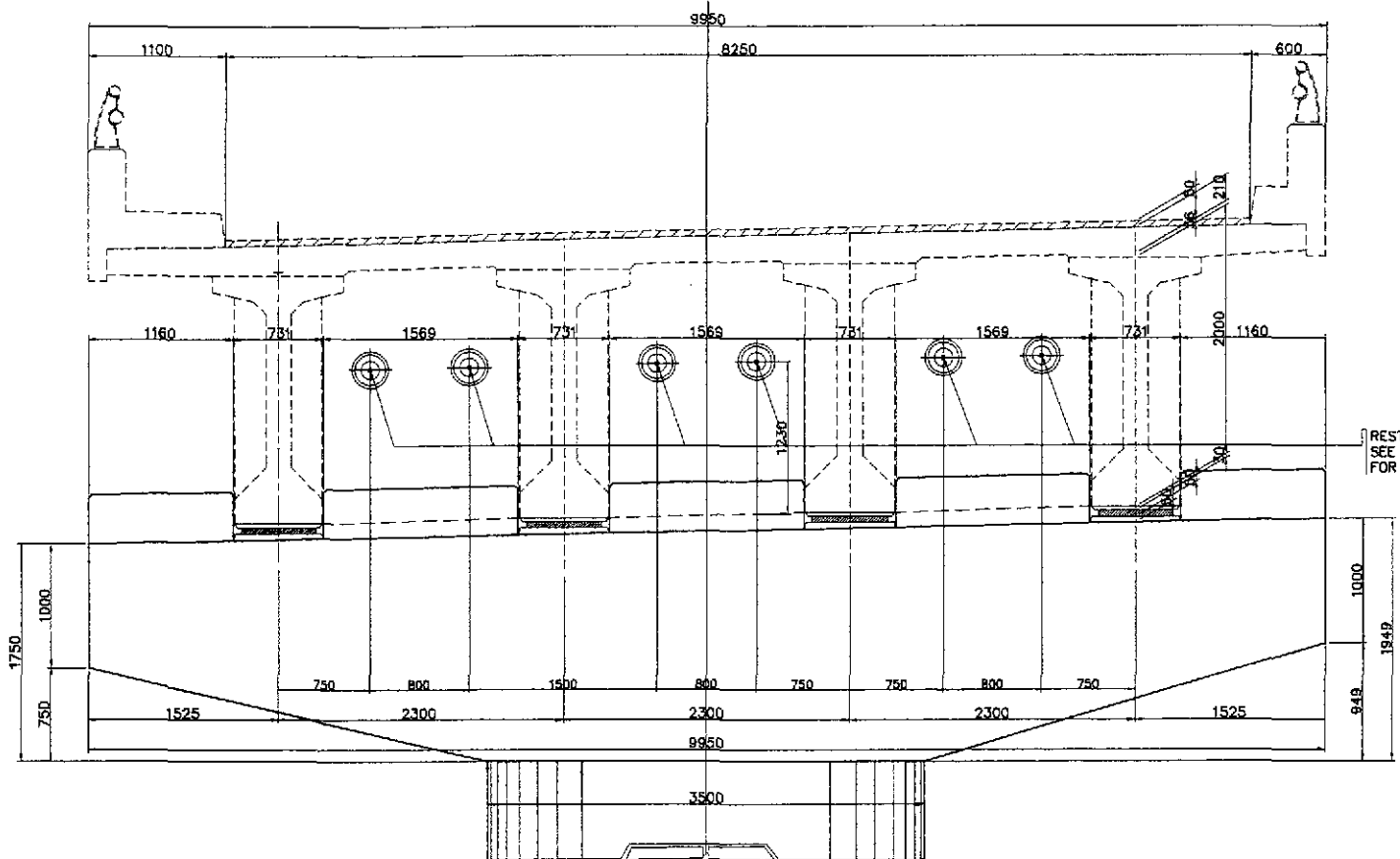
C SECTION @ BEARING PAD
SCALE 1:25



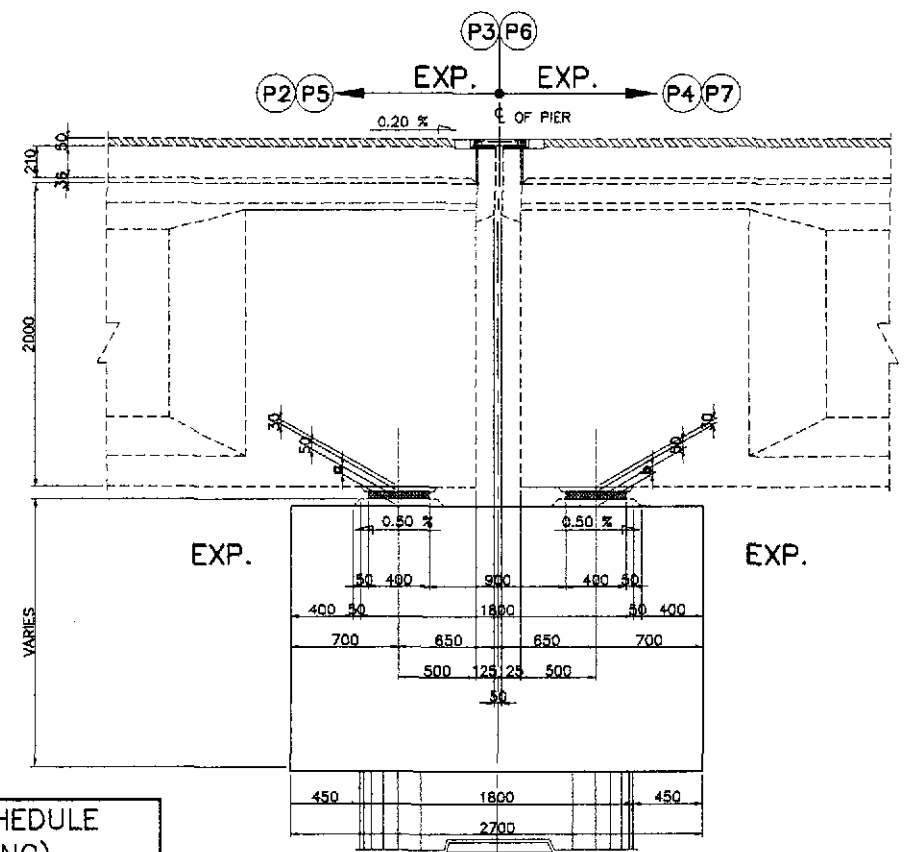
D SECTION @ ANCHOR BAR
SCALE 1:25

RISER SCHEDULE (BEARING)		
LOCATION	a	b
PIER 4	50	53
PIER 5	50	50
PIER 7	53	50
PIER 8	53	50

	DATE	SIGNATURE	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :	
	DESIGNED	10/17/02	F. P. DE JESUS	BUREAU OF DESIGN Recommended By:			THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	AS SHOWN FULL SIZE A1	BRIDGE NO.14 TALAVERA RIVER BRIDGE COPING LAYOUT & DIMENSIONS (PIERS P4, P5, P7 & P8, FIX-FIX) (ULTIMATE STAGE)	B14L-30
	CHECKED	10/17/02	J. SANTOS	Reviewed By:	Recommended By:	Approved By:				
SUBMITTED	10/21/02	M. K. KANTO	DANILLO C. TRAJANO Project Director	ADRIANO M. DOROY Chief, Bridges Division	GILBERTO S. REYES Director N (OIC)	MANUEL M. BONGAN Undersecretary				



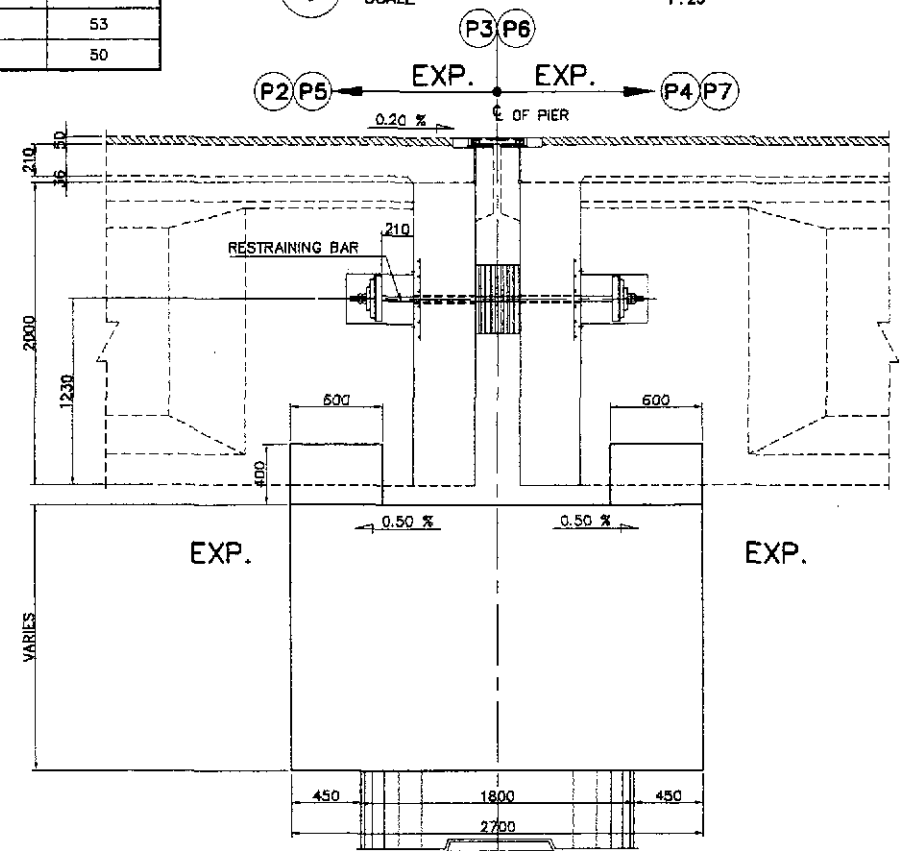
A ELEVATION
SCALE 1:30



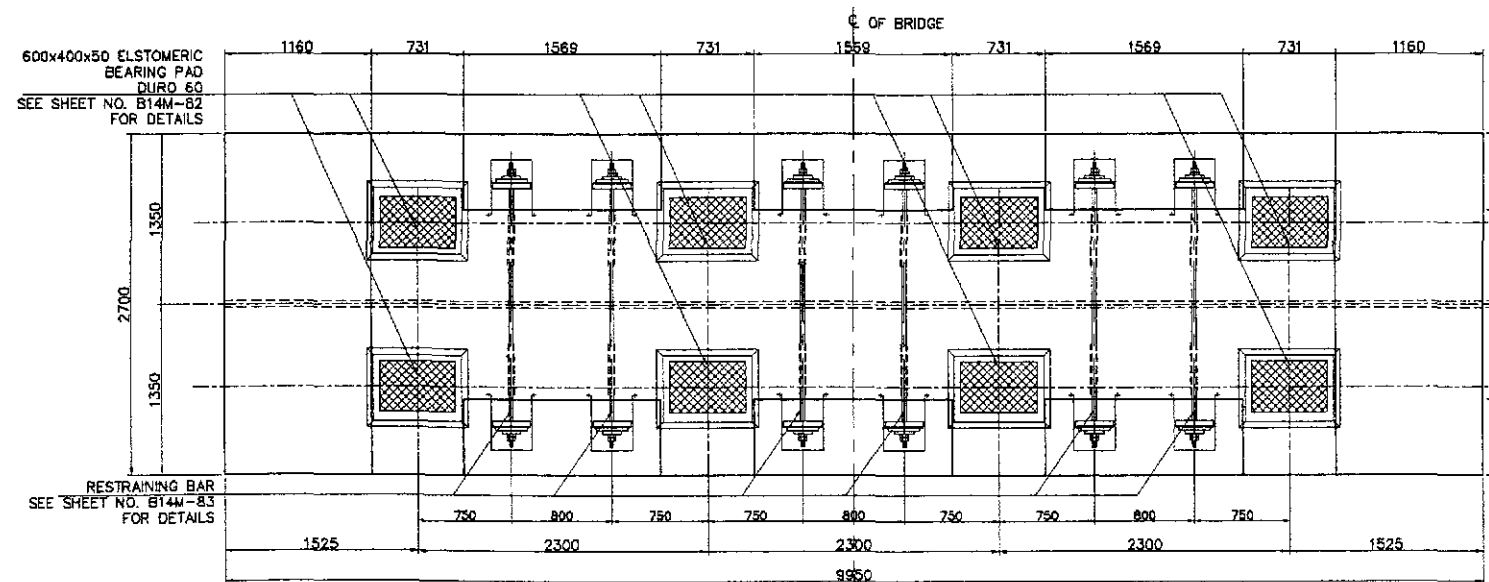
C SECTION @ BEARING PAD
SCALE 1:25

RISER SCHEDULE (BEARING)

LOCATION	a	b
PIER 3	50	53
PIER 6	53	50



D SECTION @ ANCHOR BAR
SCALE 1:25

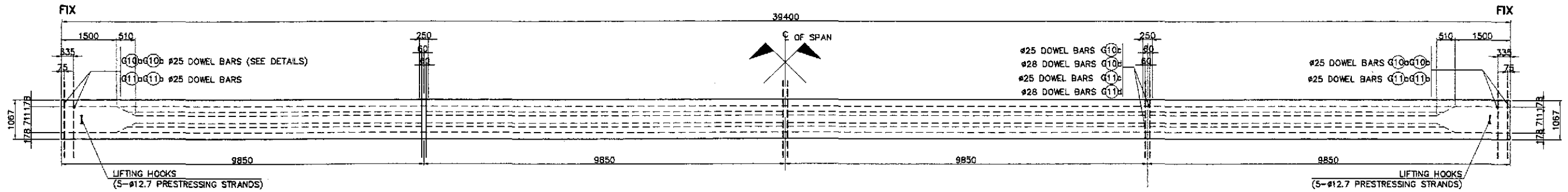


B PLAN
SCALE 1:30

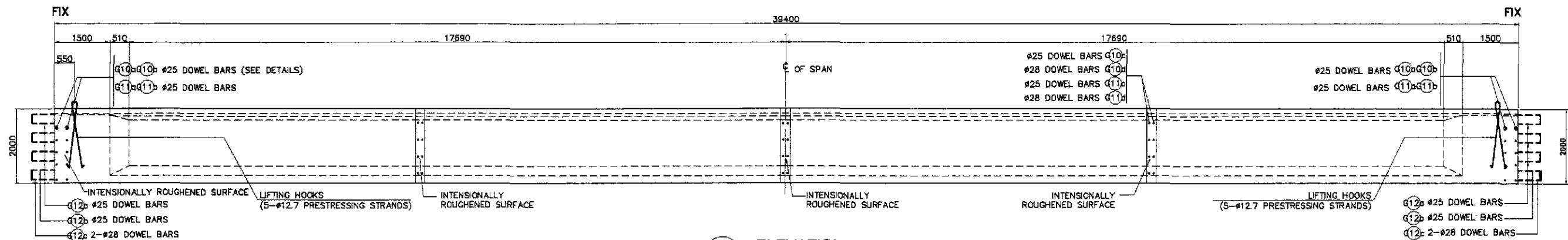
1 COPING LAYOUT AND DIMENSIONS (PIER P3 & P6, EXP. PIERS)
SCALE AS SHOWN

	DESIGNED	DATE	SIGNATURE		REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE : AS SHOWN FULL SIZE A1	SHEET CONTENTS : BRIDGE NO.14 TALAVERA RIVER BRIDGE COPING LAYOUT & DIMENSIONS (PIER P3 & P6, EXP. PIERS) (ULTIMATE STAGE)	SHEET NO. : B14L-31
	CHECKED	10/19/02	J. C. SANTOS		BUREAU OF DESIGN Submitted By: DANILLO C. TRAJANO (Project Director) Reviewed By: ADRIANO M. DORON (Chief, Bridges Division) Recommended By: GILBERTO S. REYES (Director IV (CIC)) Recommended By: MANUEL M. BONGAN (Undersecretary) Approved By: SIMEON A. DATUMANONG (Secretary)	OFFICE OF THE SECRETARY (See cover sheet for Signature/Approval)	PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV				

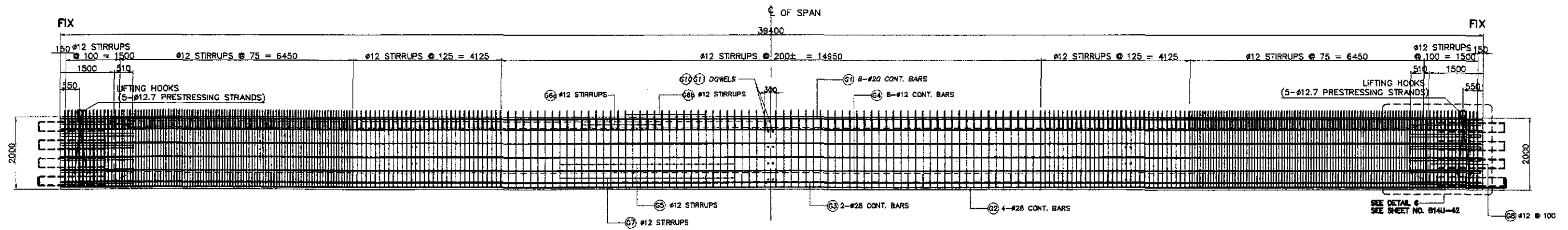
SUPERSTRUCTURE REINFORCEMENT DETAIL



A PLAN
SCALE 1:80



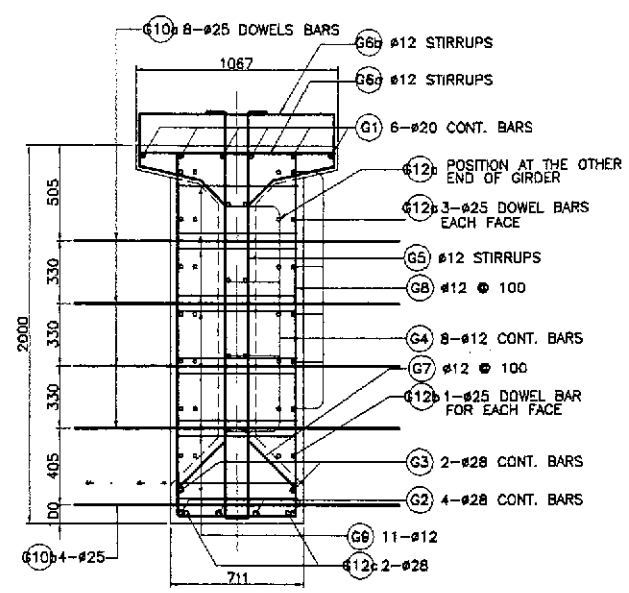
B ELEVATION
SCALE 1:80



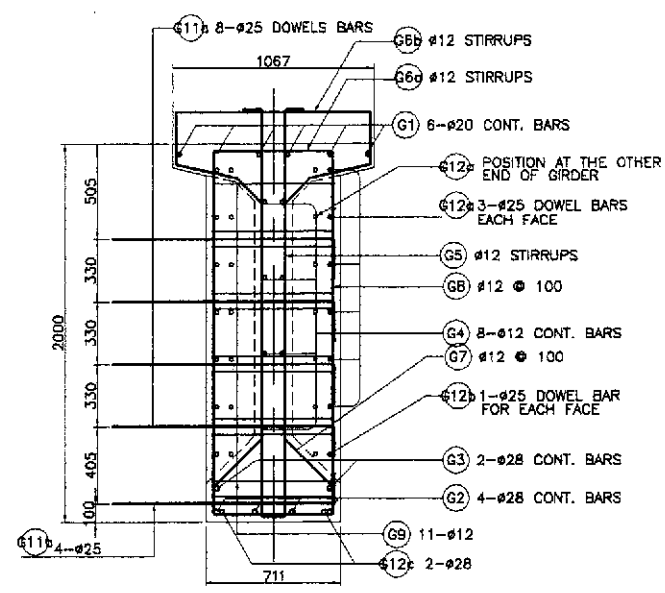
C DETAILS OF REINFORCEMENT
SCALE 1:80

1 39400 SPAN (GIRDER FIX-FIX)
SCALE AS SHOWN

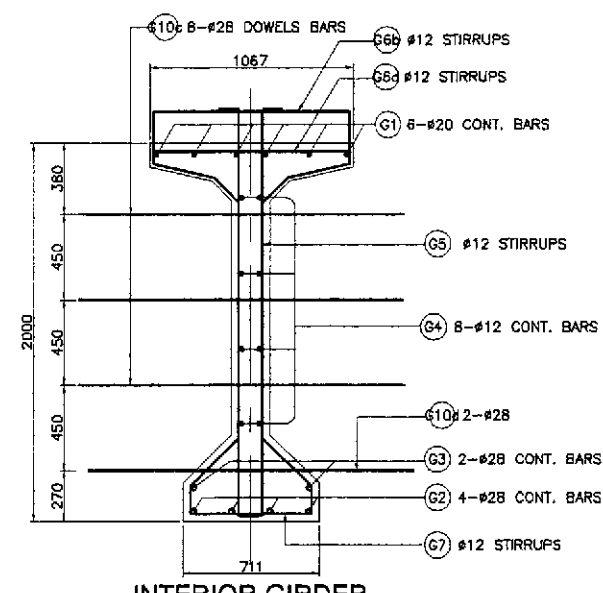
	DESIGNED	DATE	SIGNATURE		REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE : AS SHOWN FULL SIZE A1	SHEET CONTENTS : BRIDGE NO.14 TALAVERA RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (REINF. DETAILS FIX-FIX) - 1 OF 2 (ULTIMATE STAGE)	SHEET NO. : B14U-41
	CHECKED	10/19/02	J. P. DE JESUS		FJHL - PMO	BUREAU OF DESIGN	OFFICE OF THE SECRETARY				
	SUBMITTED	10/21/02	M. R. RIVERA	Submitted By:	Reviewed By:	Recommended By:	Approved By:				
				DANILO C. TRAJANO Project Director	ADRIANO M. DORAY Chief, Bridges Division	GILBERTO S. REYES Director IV (GIC)	MANUEL M. BONOAN Undersecretary	SIMEON A. DATUMANONG Secretary			



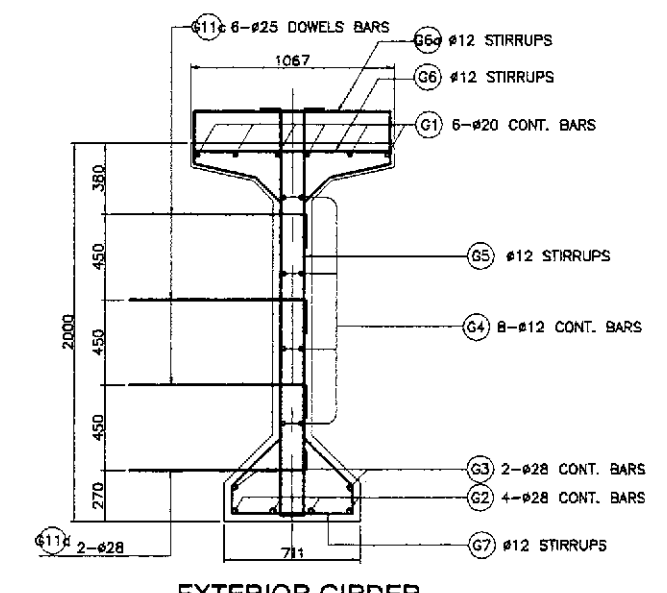
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SCALE 1:20



EXTERIOR GIRDER



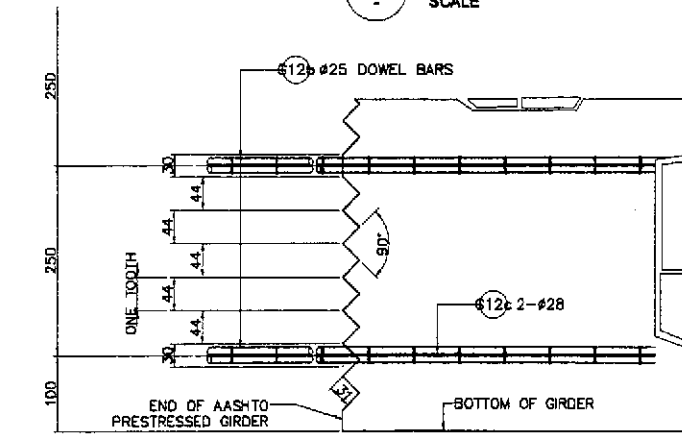
B SECTION AT INTERMEDIATE DIAPHRAGM
SCALE 1:20



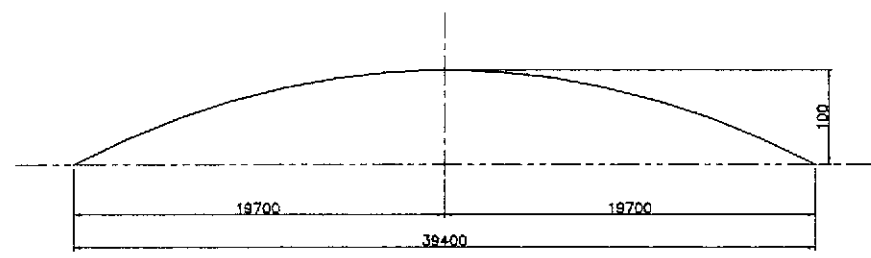
EXTERIOR GIRDER

NOTE :
REBAR (G12a) & (G12b) SHOULD BE MOVED 75mm INWARD ON THE OTHER END OF THE GIRDER TO AVOID CONFLICT WITH THE ADJACENT GIRDER AT THE END DIAPHRAGM.

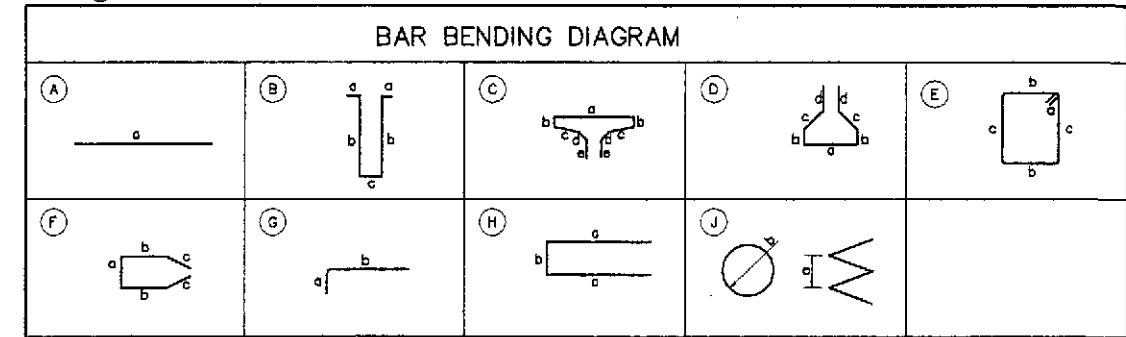
NOTE :
G12 SHALL BE INSTALLED ON FIX SIDE ONLY.



C TOOTH DETAIL
SCALE 1:5



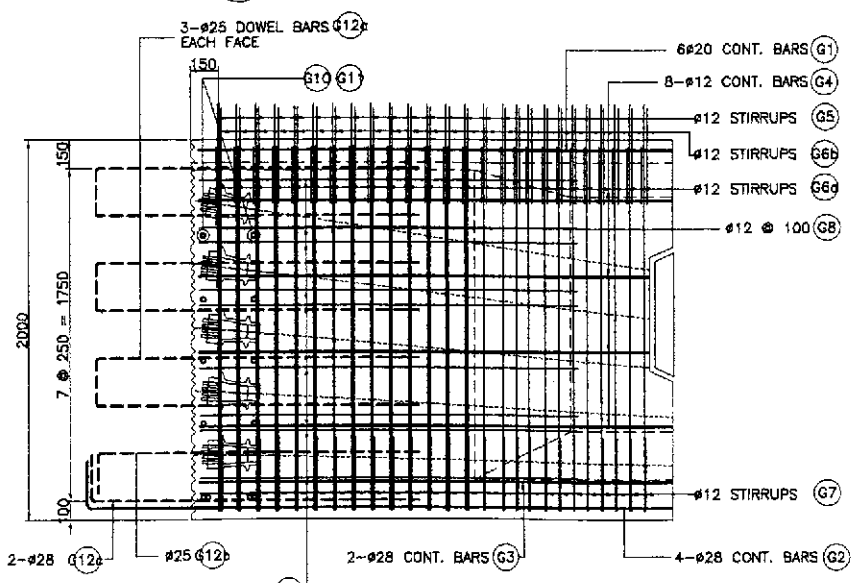
F CAMBER DIAGRAM
NOT TO SCALE



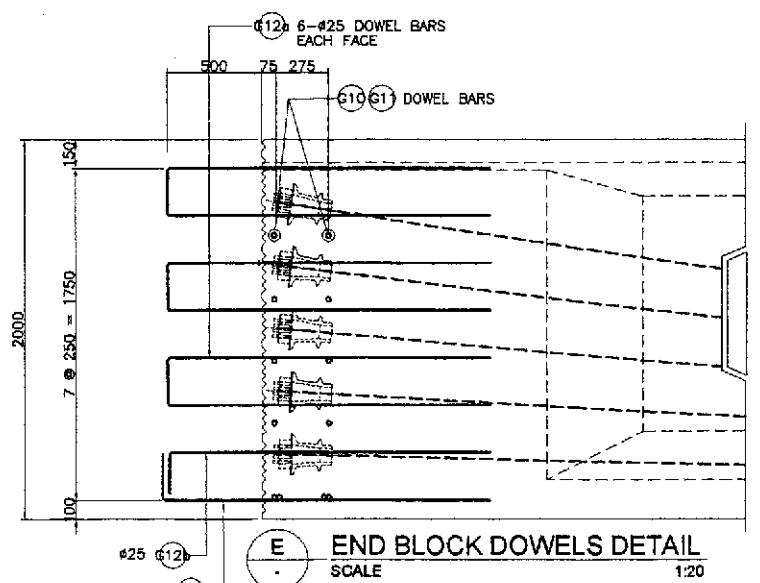
SCHEDULE OF REINFORCEMENT

LOCATION	BAR MARK	SIZE (mm)	BEND TYPE	DIMENSION(mm) OUT TO OUT					LENGTH (mm)	NO. REQ'D.	UNIT WEIGHT (kg/m)	WEIGHT (kg)		REMARKS	
				a	b	c	d	e				GRADE 40	GRADE 60		
GIRDER	G1	20	A	39300					39050	6	2.466		581	1.) Quantities for one (1) girder only.	
	G2	28	H	500	40500				41500	4	4.834		802		
	G3	28	A	39300					39050	2	4.834		380		
	G4	12	A	39300					39050	8	0.888	279			
	G5	12	B	200	2100	103			4703	344	0.888	1437			
	G6	12	C	1000	50	340	200	150	2480	344	0.888	758			
	G6a	12	C	1000	150	340	200	150	2680	344	0.888	819			
	G7	12	D	635	160	550	150		2355	344	0.888	719		2.) Splice length not included.	
	G8	12	E	635	1900	150			4735	28	0.888	126			
	G9	12	F	611	1450	570			4851	22	0.888	91			
	G10a	25	A	2700					2700	32	3.853		333		
	G10b	25	A	2700					2700	16	3.853		166		
	G10c	25	A	2200					2200	36	3.853		305		
	G10d	28	A	2200					2200	12	4.834		128		
	G11a	25	G	300	1700				2000	32	3.853		247		
	G11b	25	G	300	1700				2000	16	3.853		123	3.) Bar mark G10 is for interior girder.	
	G11c	25	G	300	1200				1500	36	3.853		208		
	G11d	28	G	300	1200				1500	12	4.834		87		
	G12a	25	H	1200	250				2850	12	3.854		123		
	G12b	25	G	300	1200				1500	4	3.854		24		
G12c	28	G	500	1200				1700	4	4.834		99			
G13	16	J	50	285				4477	10	1.578	71		4.) Bar mark G11 is for exterior girder.		
											(EXTERIOR) TOTAL =	4300	2674		
											(INTERIOR) TOTAL =	4300	2941		

THE REINFORCEMENT SHOWN ON THIS TABLE IS FOR REFERENCE ONLY. THE CONTRACTOR SHOULD CHECKED AND VERIFY ALL DIMENSIONS, SIZES AND QUANTITIES OF REINFORCEMENT.

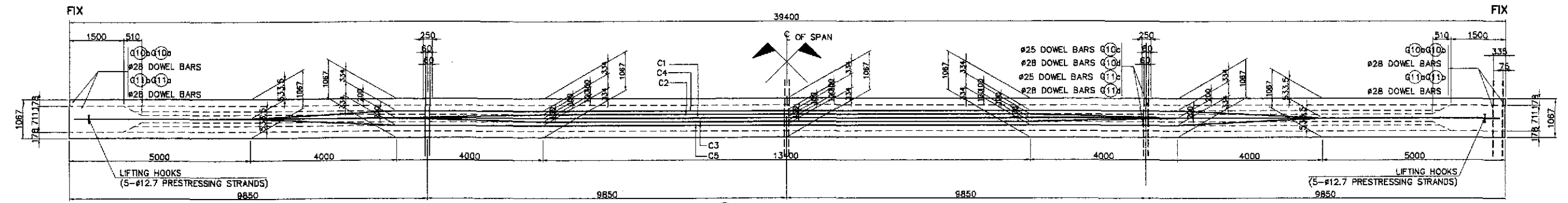


D END BLOCK REINF. DETAIL
SCALE 1:20

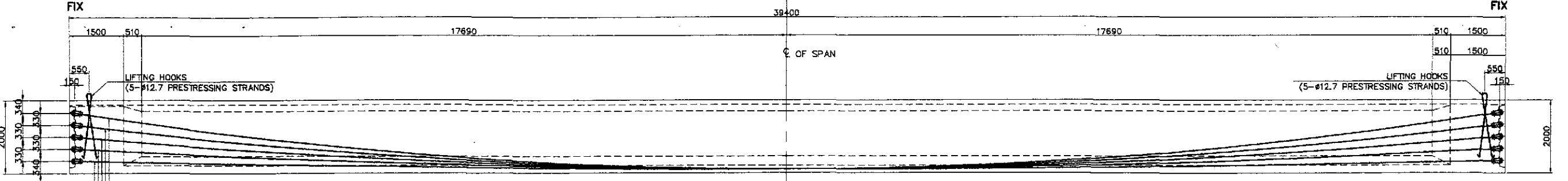


E END BLOCK DOWELS DETAIL
SCALE 1:20
1 39400 SPAN (GIRDER FIX-FIX)
SCALE AS SHOWN

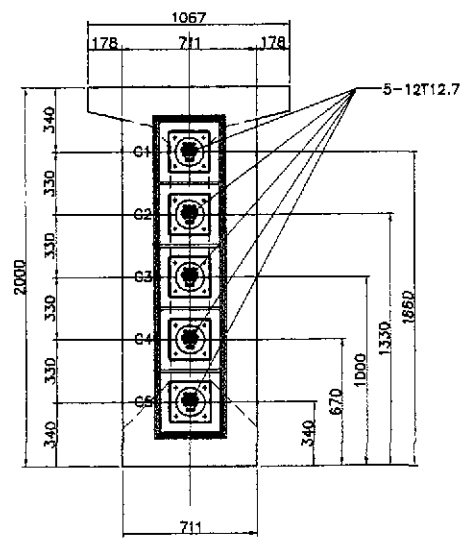
	DESIGNED: 10/17/02 P. P. DE JESUS				PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :
	CHECKED: 10/19/02 J. C. SANTOS	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BUREAU OF DESIGN			THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses)	AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (REINF. DETAILS FIX-FIX) - 2 OF 2 (ULTIMATE STAGE)	B14U-42
SUBMITTED: 10/21/02	OFFICE OF THE SECRETARY Recommended By: MANUEL M. BONGDAN, Underscretary Approved By: SIMONE A. DATUMANONG, Secretary			CABANATUAN BYPASS - CONTRACT PACKAGE IV	FULL SIZE A1			



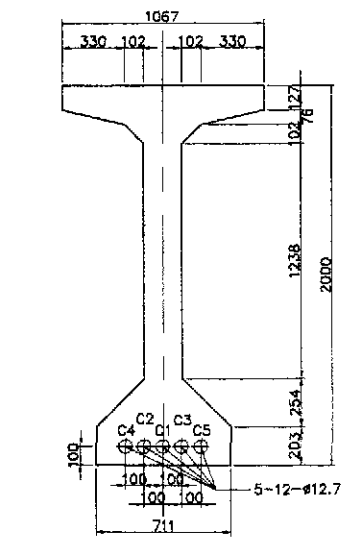
A PLAN
SCALE 1:60



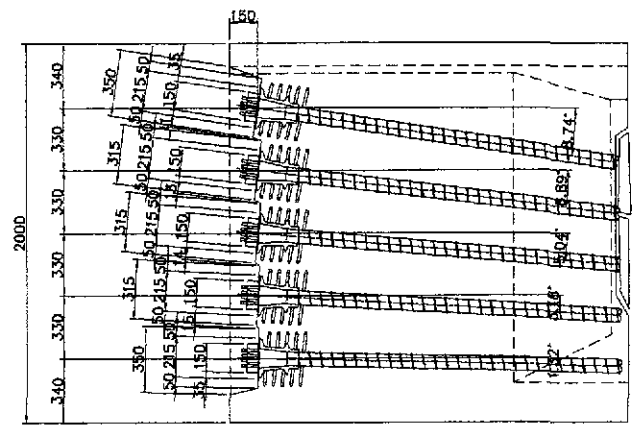
B ELEVATION
SCALE 1:60



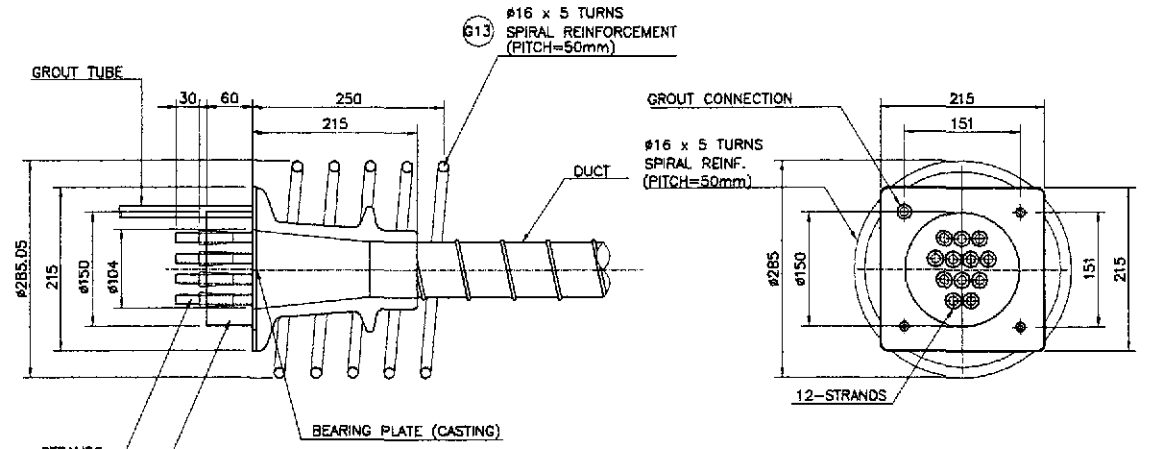
C SECTION @ GIRDER END
SCALE 1:20



D SECTION @ MIDSPAN
SCALE 1:20

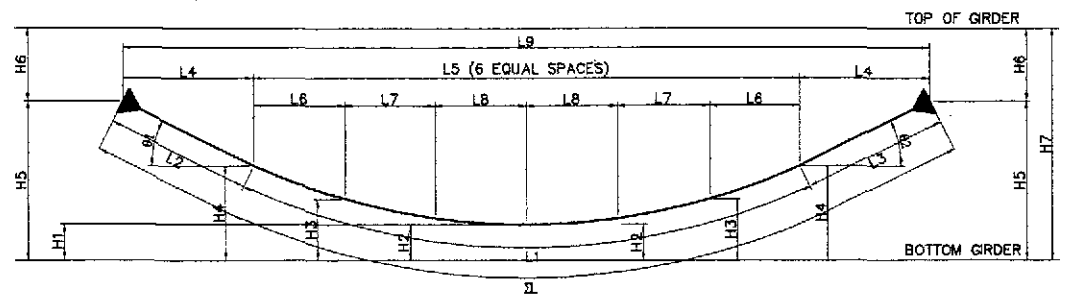


E ANCHORAGE DETAILS
SCALE 1:20



F VSL PRESTRESSING ANCHORAGE TYPE EC (LIVE END)
SCALE 1:5

NOTE :
FRICTION COEFFICIENTS USED
IN THE DESIGN ARE :
k = 0.001/m
μ = 0.200/RAD.



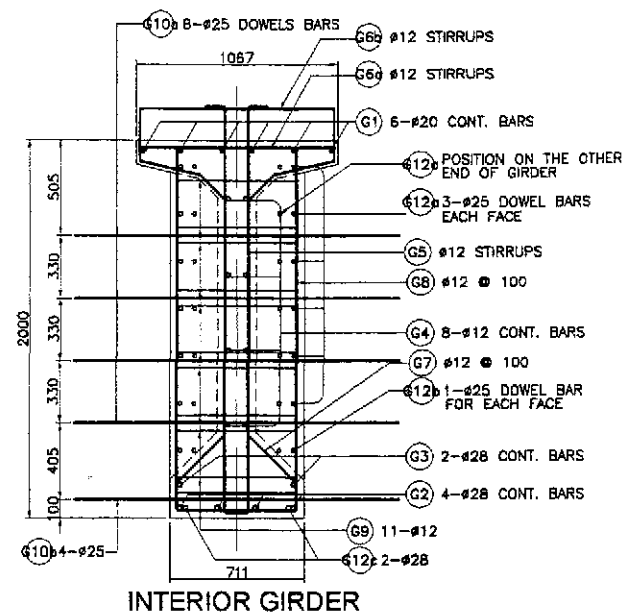
TENDON VERTICAL PROFILE

TENDON DESIGNATION	L1	L2	L3	L4	L5	L6	L7	L8	L9	L	H1	H2	H3	H4	H5	H6	H7	θ1	θ2	TYPE - SIZE	FORCE IN TENDON @ JACK BEFORE LOCK OFF (KN)	ANCHORAGE SLIP (mm)	TENDON PRESTRESS FORCE AFTER LOCK-OFF @ MIDSPAN (KN)	TENDON LENGTH (mm)	TOTAL LENGTH (mm)	TOTAL WEIGHT OF TENDON (Kg)	
C1	36265	1500	1500	1483	36135	6022.5	6022.5	6022.5	39100	39265	100	248	691	1431	1660	340	2000	8.74°	8.74°	12-dia. 12.7	1654	8	1387	39265	471,180	365,184	
C2	36202	1500	1500	1489	36122	6020.3	6020.3	6020.3	39100	39202	100	217	567	1150	1330	670	2000	6.89°	6.89°	12-dia. 12.7	1654	6	1387	39202	470,424	364,578	
C3	36155	1500	1500	1494	36112	6018.7	6018.7	6018.7	39100	39155	100	186	444	868	1000	1000	2000	5.04°	5.04°	12-dia. 12.7	1654	6	1387	39155	469,860	364,141	
C4	36122	1500	1500	1498	36105	6017.5	6017.5	6017.5	39100	39122	100	155	318	586	670	1330	2000	3.18°	3.18°	12-dia. 12.7	1654	6	1387	39122	469,464	363,834	
C5	36104	1500	1500	1500	36101	6016.8	6016.8	6016.8	39100	39104	100	124	192	305	340	1660	2000	1.32°	1.32°	12-dia. 12.7	1654	6	1387	39104	469,248	363,667	
																							TOTAL	2,350,176	1,821,396		

1 39400 SPAN (GIRDER FIX-FIX)
SCALE AS SHOWN

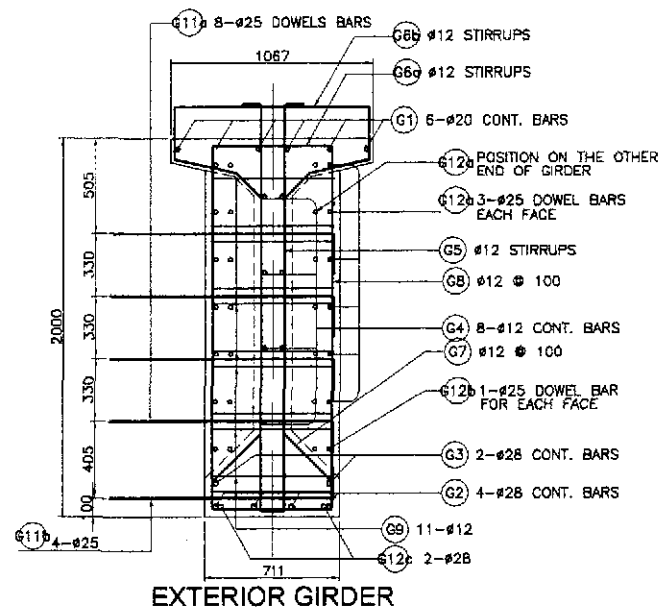
NOTE : AFTER FRICTION LOSS AND WEDGE DRAW-IN ONLY.

	DESIGNED	10/17/02	F. P. DE JESUS		PROJECT AND LOCATION :	THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Palarid, Cabanatuan and San Jose Bypasses)	SCALE :	AS SHOWN	SHEET CONTENTS : BRIDGE NO.14 TALavera RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (PRESTRESSING DET. FIX-FIX SUPPORT) (ULTIMATE STAGE)	SHEET NO. : B14U-43
	CHECKED	10/19/02	J. C. SANTOS		SUBMITTED 10/21/02 M. R. RANOS TEAM LEADER	DANILLO C. TRAJANO Project Director	ADRIANO M. DORON Chief, Bridges Division	GILBERTO S. REYES Director IV (CIC)		



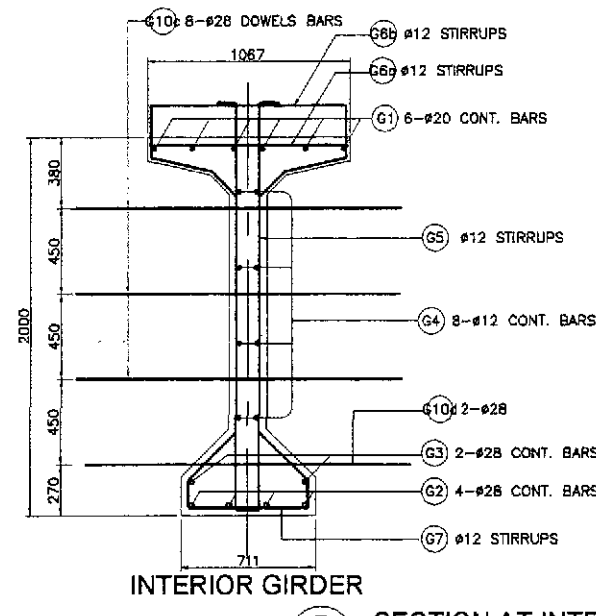
INTERIOR GIRDER

A SECTION AT END DIAPHRAGM
SCALE 1:20



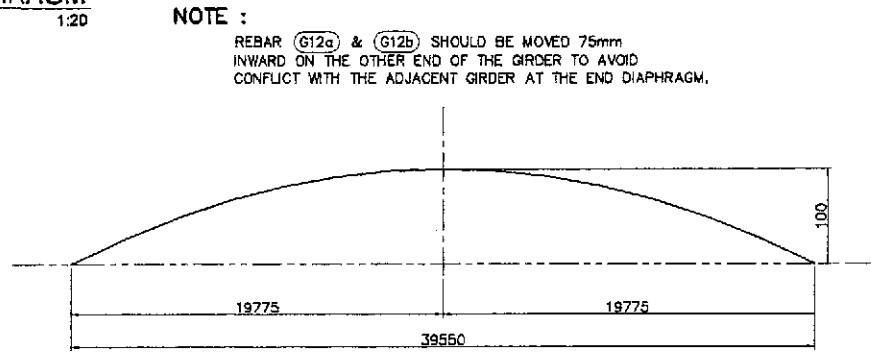
EXTERIOR GIRDER

B SECTION AT INTERMEDIATE DIAPHRAGM
SCALE 1:20



BOTTOM OF GIRDER

C TOOTH DETAIL
SCALE 1:5

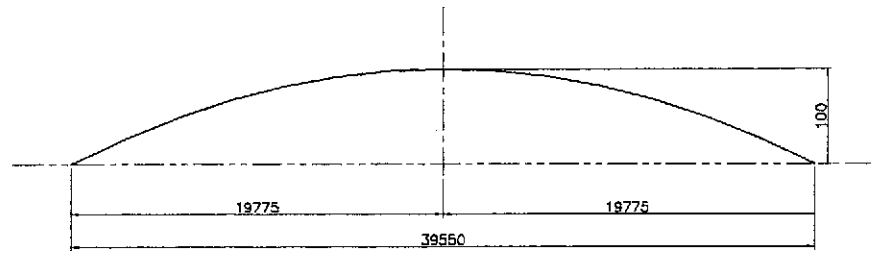


D END BLOCK REINF. DETAIL
SCALE 1:20

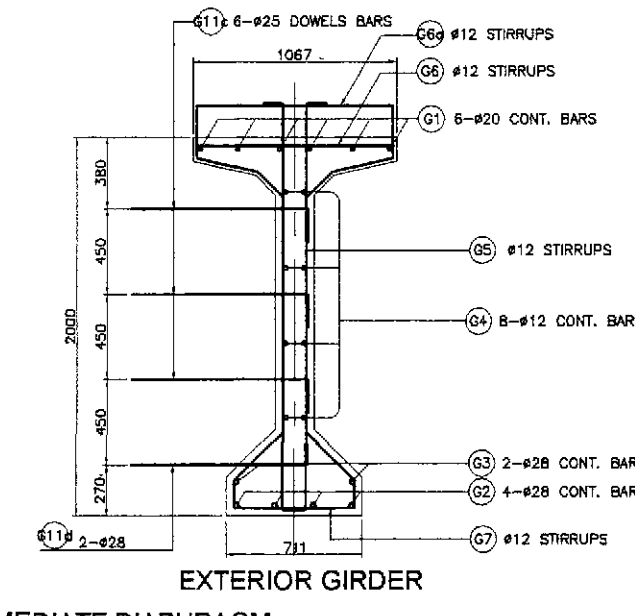


E END BLOCK DOWELS DETAIL @ FIX SIDE
SCALE 1:20

NOTE :
REBAR (G12a) & (G12b) SHOULD BE MOVED 75mm INWARD ON THE OTHER END OF THE GIRDER TO AVOID CONFLICT WITH THE ADJACENT GIRDER AT THE END DIAPHRAGM.



F CAMBER DIAGRAM
NOT TO SCALE

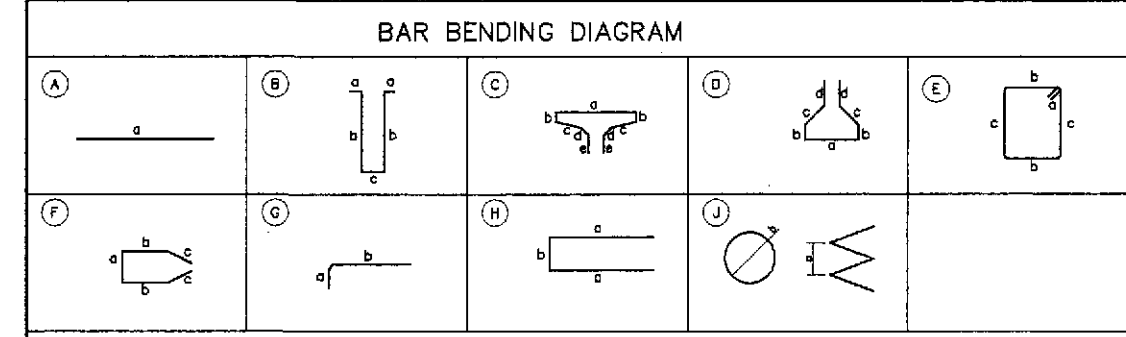


INTERIOR GIRDER

EXTERIOR GIRDER

B SECTION AT INTERMEDIATE DIAPHRAGM
SCALE 1:20

NOTE :
G12 SHALL BE INSTALLED ON FIX SIDE ONLY.

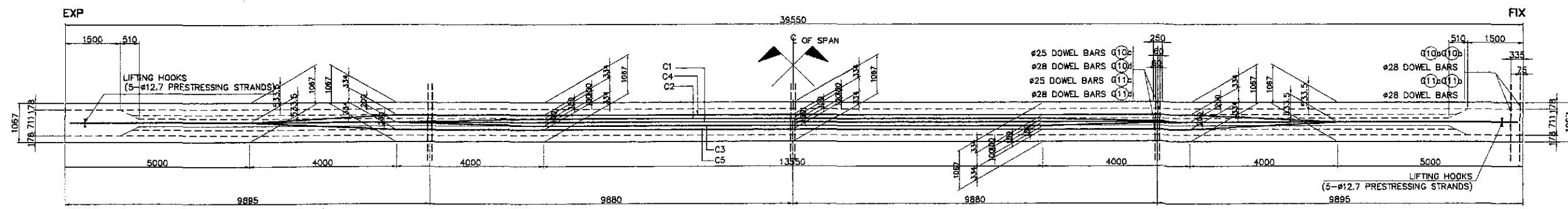


H BAR BENDING DIAGRAM

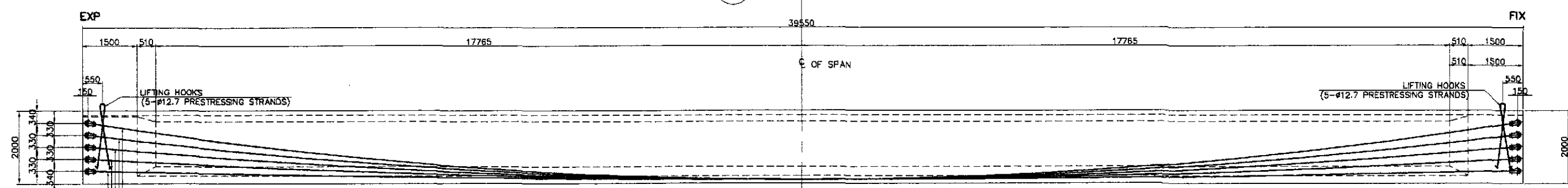
SCHEDULE OF REINFORCEMENT														
LOCATION	BAR MARK	SIZE (mm)	BEND TYPE	DIMENSION(mm) OUT TO OUT					LENGTH (mm)	NO. REQ'D.	UNIT WEIGHT (kg/m)	WEIGHT (kg)		REMARKS
				a	b	c	d	e				GRADE 40	GRADE 60	
GIRDER	G1	20	A	39450					39450	6	2.466		584	1.) Quantities for one (1) girder only.
	G2	28	G	500	40600				41100	4	4.834		795	
	G3	28	A	39450					39450	2	4.834		381	
	G4	12	A	39450					39450	8	0.888	280		
	G5	12	B	200	2100	103			4703	352	0.888	1470		
	G6a	12	C	1000	50	340	200	150	2480	352	0.888	775		
	G6b	12	C	1000	150	340	200	150	2680	352	0.888	838		
	G7	12	D	365	180	550	150		2355	352	0.888	736		
	G8	12	E	150	630	1900			5070	28	0.888	126		
	G9	12	F	611	1450	570			4651	22	0.888	90		
	G10a	25	A	2700					2700	32	3.853		333	2.) Splice length not included.
	G10b	25	A	2700					2700	16	3.853		166	
	G10c	25	A	2200					2200	36	3.853		305	
	G10d	28	A	2200					2200	12	4.834		128	
	G11a	25	G	300	1700				2000	32	3.853		247	3.) Bar mark G10 is for interior girder.
	G11b	25	G	300	1700				2000	16	3.853		123	
	G11c	25	G	300	1200				1500	36	3.853		208	
	G11d	28	G	300	1200				1500	12	4.834		87	
	G12a	25	H	1200	250				2650	6	3.854		62	4.) Bar mark G11 is for exterior girder.
	G12b	25	G	300	1200				1500	2	3.854		8	
G12c	28	G	500	1200				1700	2	4.834		16		
G13	16	J	50	285				4477	10	1.578	71			
											(EXTERIOR) TOTAL =	4386	2511	
											(INTERIOR) TOTAL =	4386	2778	

THE REINFORCEMENT SHOWN ON THIS TABLE IS FOR REFERENCE ONLY. THE CONTRACTOR SHOULD CHECK AND VERIFY ALL DIMENSIONS, SIZES AND QUANTITIES OF REINFORCEMENT.

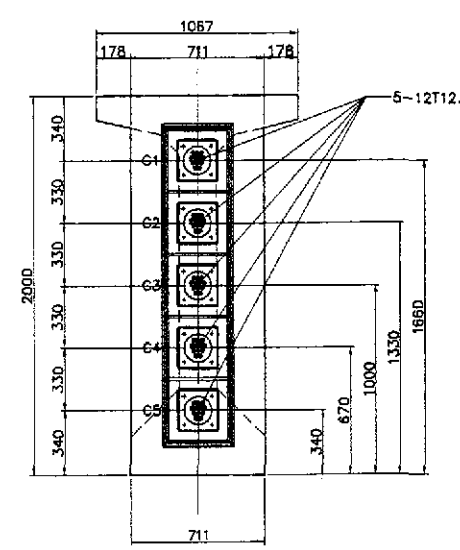
	DESIGNED	10/17/02	F. P. DE JESUS	<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS</p>	PROJECT AND LOCATION :				SCALE :	SHEET CONTENTS :	SHEET NO. :
	CHECKED	10/19/02	J. SANTOS		THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses)				AS SHOWN	BRIDGE NO.14 TALavera RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (REINF. DET. EXP.-FIX SUPPORT) - 2 OF 2 (ULTIMATE STAGE)	B14U-45
	SUBMITTED	10/21/02	Mr. R. M. ...		CABANATUAN BYPASS - CONTRACT PACKAGE IV				FULL SIZE A1		
			PUBL - PMO	OFFICE OF THE SECRETARY							
			Submitted By:	Reviewed By:	Recommended By:	Recommended By:	Approved By:				
			DANILO C. TRAJANO Project Director	ADRIANO M. DORCY Chief, Bridges Division	GILBERTO S. REYES Director IV (CIC)	MANUEL M. BONGCAN Undersecretary	SIMEON A. DATUMANONG Secretary				



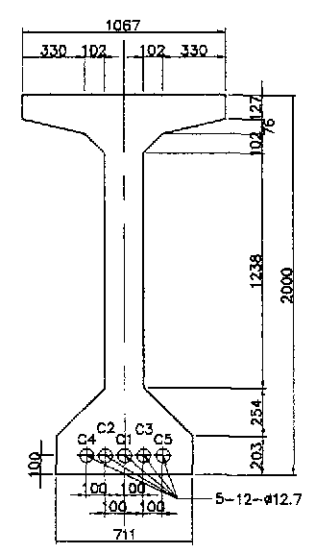
A PLAN
SCALE 1:80



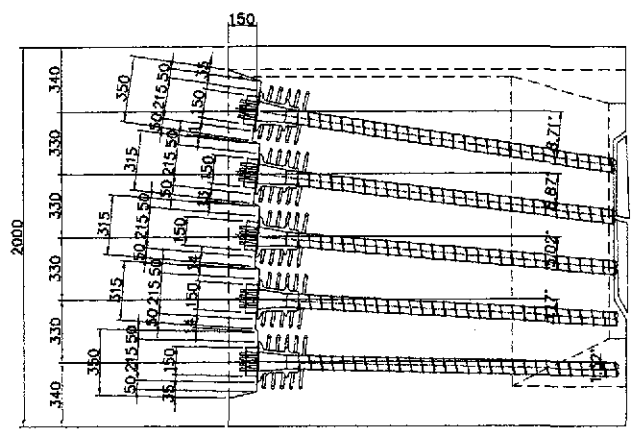
B ELEVATION
SCALE 1:80



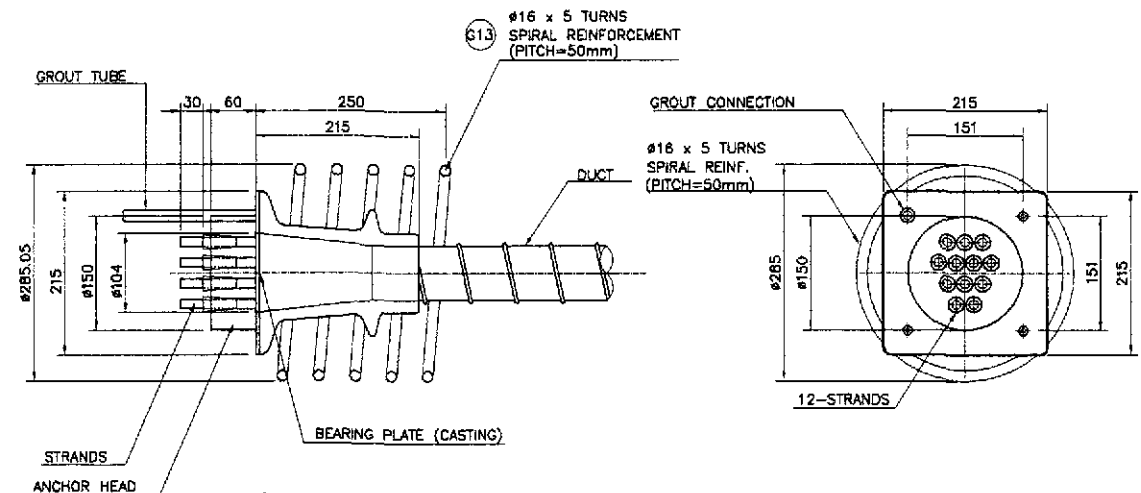
C SECTION @ GIRDER END
SCALE 1:20



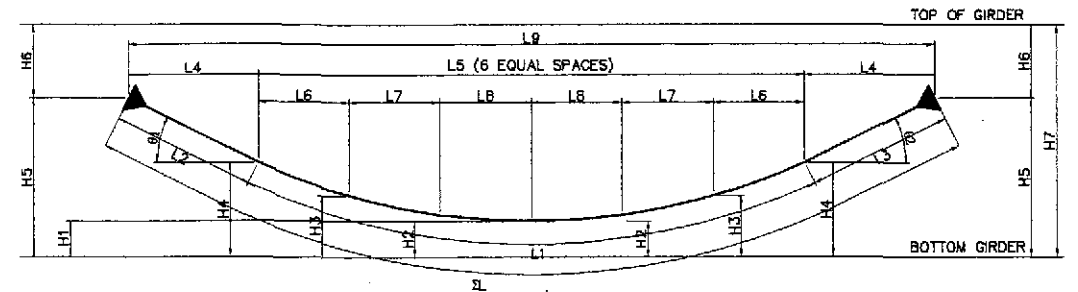
D SECTION @ MIDSPAN
SCALE 1:20



E ANCHORAGE DETAILS
SCALE 1:20



F VSL PRESTRESSING ANCHORAGE TYPE EC (LIVE END)
SCALE 1:5



TENDON VERTICAL PROFILE

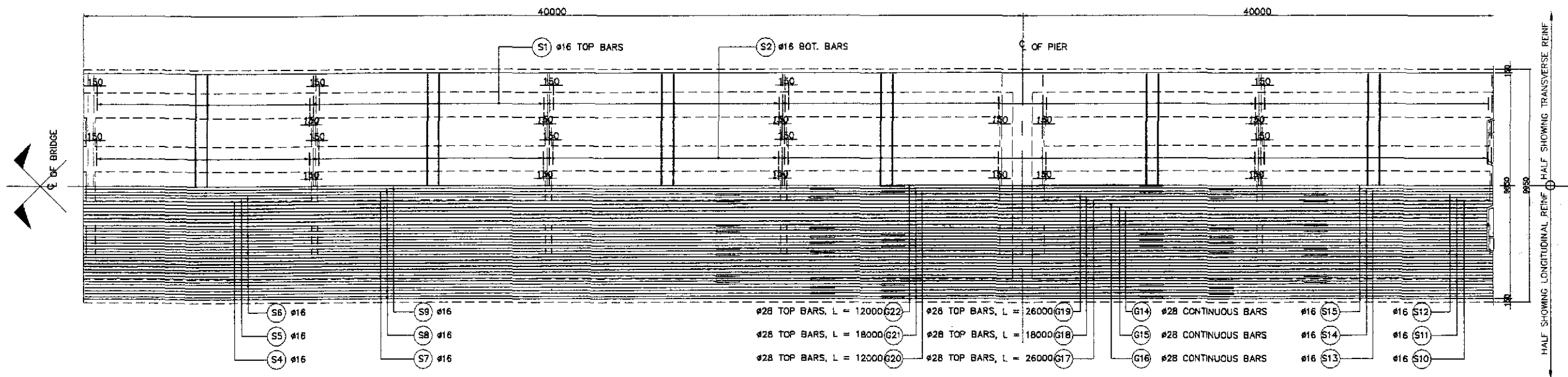
TENDON DESIGNATION	L1	L2	L3	L4	L5	L6	L7	L8	L9	ΣL	H1	H2	H3	H4	H5	H6	H7	θ1	θ2	TYPE - SIZE	FORCE IN TENDON @ JACK BEFORE LOCK OFF (KN)	ANCHORAGE SLIP (mm)	TENDON PRESTRESS FORCE AFTER LOCK-OFF @ MIDSPAN (KN)	TENDON LENGTH (mm)	TOTAL LENGTH (mm)	TOTAL WEIGHT OF TENDON (mm)
C1	36414	1500	1500	1483	36285	6047.5	6047.5	6047.5	39250	39414	100	248	892	1431	1660	340	2000	8.71°	8.71°	12-dia. 12.7	1654	6	1387	39414	472,968	366,550
C2	36352	1500	1500	1489	36272	6045.3	6045.3	6045.3	39250	39352	100	217	567	1150	1330	670	2000	6.87°	6.87°	12-dia. 12.7	1654	6	1387	39352	472,224	365,973
C3	36304	1500	1500	1494	36262	6043.7	6043.7	6043.7	39250	39304	100	186	442	868	1000	1000	2000	5.02°	5.02°	12-dia. 12.7	1654	6	1387	39304	471,648	365,527
C4	36272	1500	1500	1498	36255	6042.5	6042.5	6042.5	39250	39272	100	155	317	587	670	1330	2000	3.17°	3.17°	12-dia. 12.7	1654	6	1387	39272	471,264	365,229
C5	36254	1500	1500	1500	36251	6041.8	6041.8	6041.8	39250	39254	100	124	192	305	340	1660	2000	1.32°	1.32°	12-dia. 12.7	1654	6	1387	39254	471,048	365,062
TOTAL																								2,356,152	1,828,342	

NOTE :
FRICTION COEFFICIENTS USED IN THE DESIGN ARE :
k = 0.001/m
μ = 0.200/RAD.

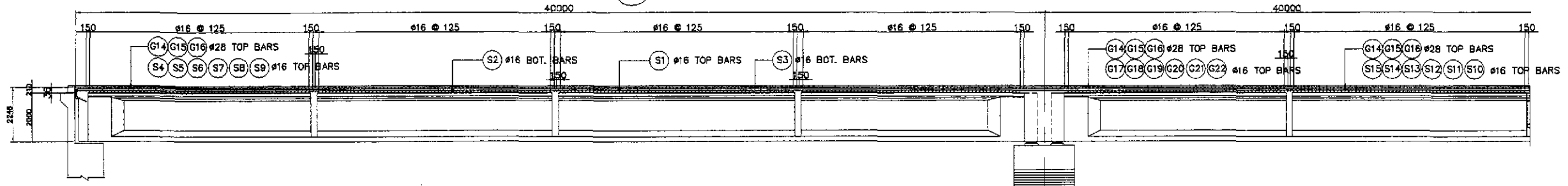
NOTE : AFTER FRICTION LOSS AND WEDGE DRAW-IN ONLY.

1 39550 SPAN (GIRDER EXP-FIX)
SCALE AS SHOWN

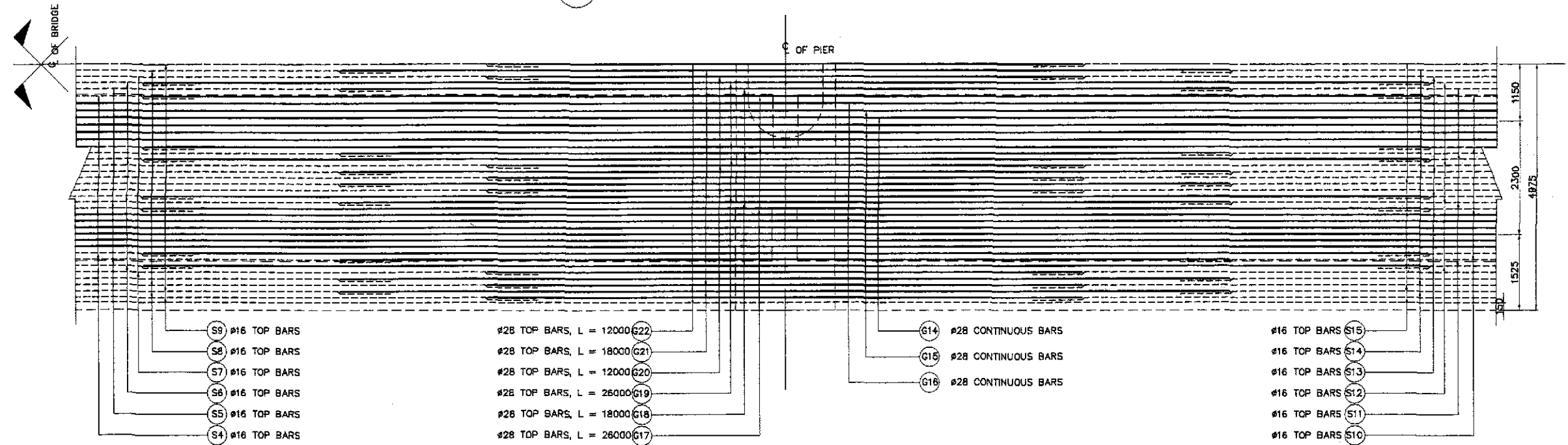
	DESIGNED	10/17/02	 F. P. DE JESUS TEAM LEADER	 REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BUREAU OF DESIGN	Submitted By:	DANILO C. TRAJANO Project Director	Reviewed By:	ADRIANO M. DORGY Chief, Bridges Division	Recommended By:	GILBERTO S. REYES Director IV (CIC)	Approved By:	MANUEL M. BONGAN Undersecretary	Approved By:	SIMON A. DATUMANONG Secretary	PROJECT AND LOCATION :	THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Pardiel, Cabanatuan and San Jose Bypasses)	SCALE :	AS SHOWN	SHEET CONTENTS :	BRIDGE NO.14 TALavera RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (PRESTRESSING DET. (EXP-FIX SUPPORT) (ULTIMATE STAGE)	SHEET NO. :	B14U-46
	CHECKED	10/19/02			Submitted By:	DANILO C. TRAJANO Project Director	Reviewed By:	ADRIANO M. DORGY Chief, Bridges Division	Recommended By:	GILBERTO S. REYES Director IV (CIC)	Approved By:	MANUEL M. BONGAN Undersecretary	Approved By:	SIMON A. DATUMANONG Secretary	PROJECT AND LOCATION :	CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE :	FULL SIZE A1	SHEET CONTENTS :	BRIDGE NO.14 TALavera RIVER BRIDGE AASHTO GIRDER TYPE VI (MODIFIED) (PRESTRESSING DET. (EXP-FIX SUPPORT) (ULTIMATE STAGE)	SHEET NO. :	B14U-46



A PLAN SHOWING REINFORCEMENT
SCALE 1:100



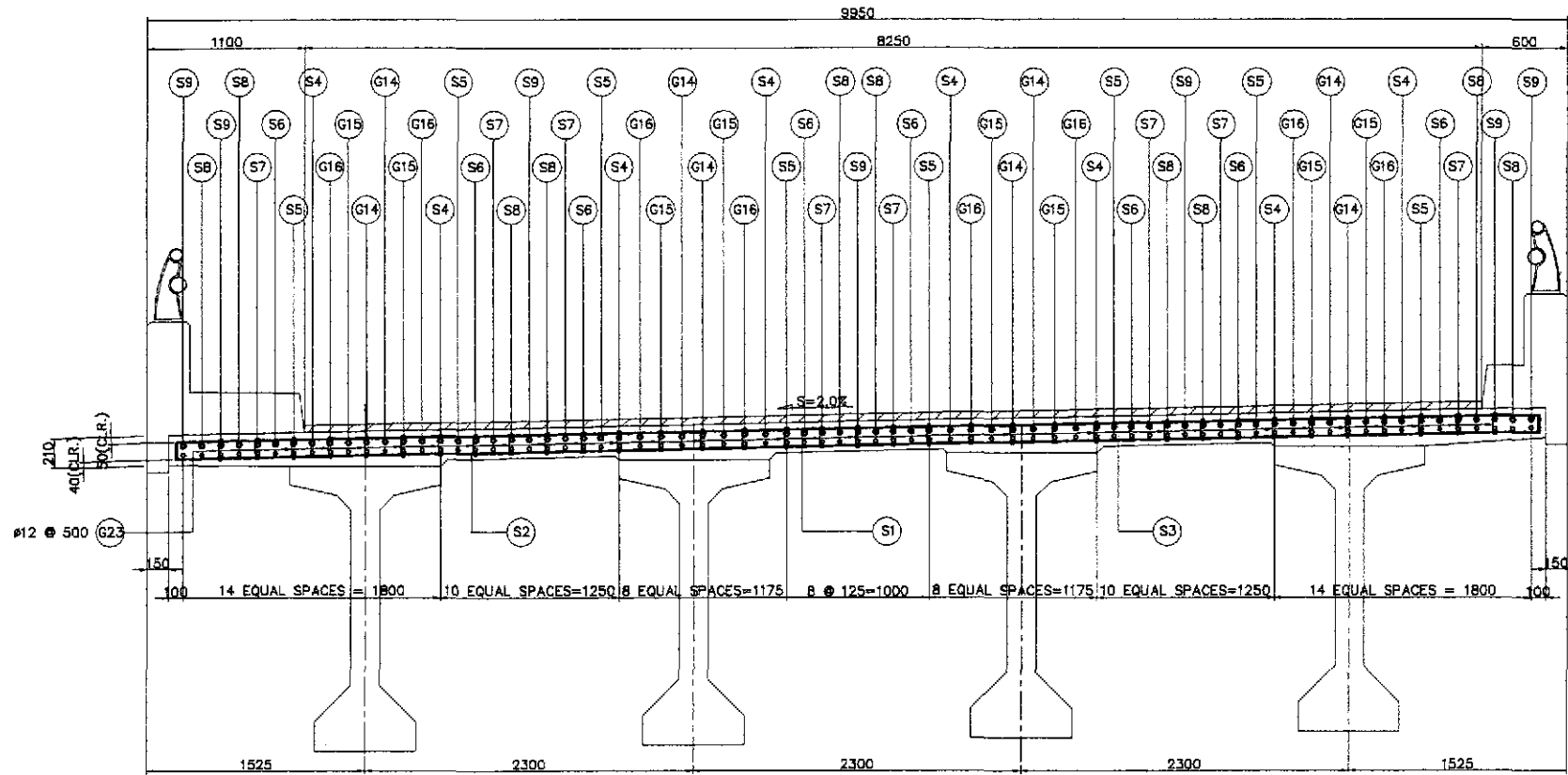
B LONGITUDINAL SECTION SHOWING REINF.
SCALE 1:100



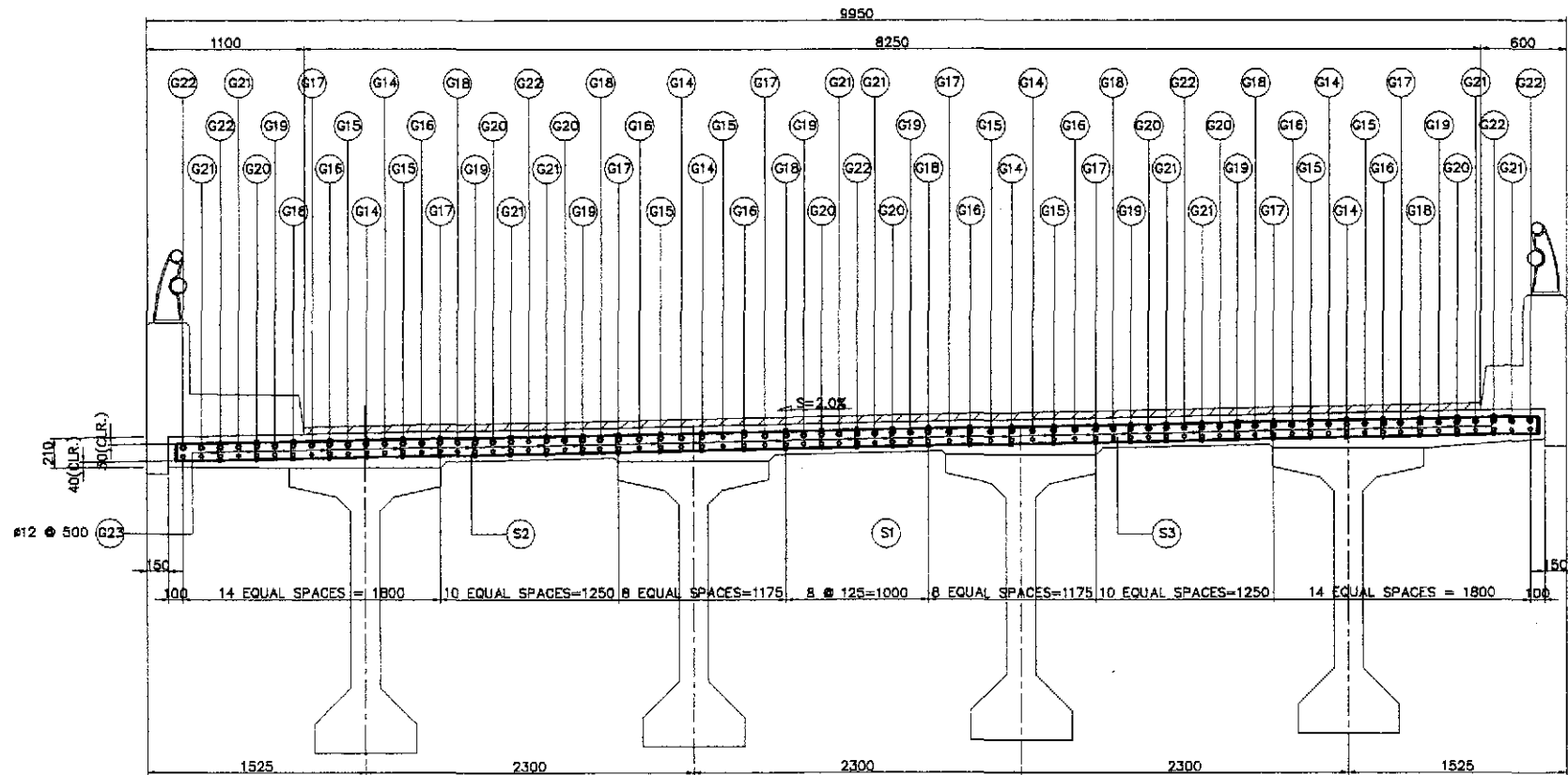
C REINFORCEMENT OVER PIER
SCALE 1:50

1 DECK SLAB REINFORCEMENT DETAILS
SCALE AS SHOWN

	DESIGNED	10/17/02		REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Plaridel, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE : AS SHOWN FULL SIZE A1	SHEET CONTENTS : BRIDGE NO.14 TALAVERA RIVER BRIDGE DECK SLAB REINF. DETAILS - 1 OF 3 (ULTIMATE STAGE)	SHEET NO. : B14U-47
	CHECKED	10/19/02		BUREAU OF DESIGN Submitted By: DANILLO C. TRAJANO Project Director	Reviewed By: ADRIANO M. DOROY Chief, Bridge Division	OFFICE OF THE SECRETARY Recommended By: GILBERTO S. REYES Director IV (GIC)				

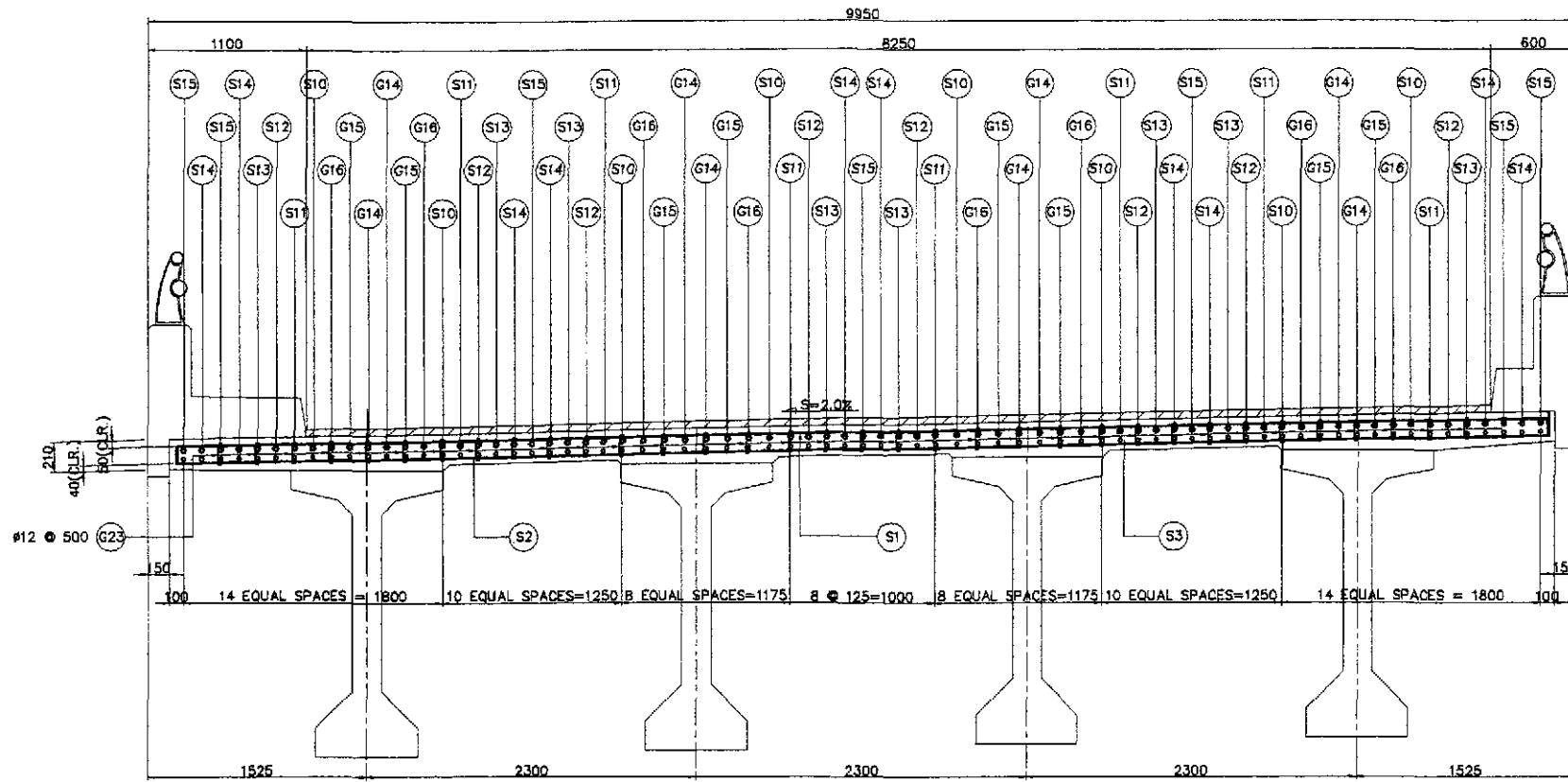


A TRANSVERSE SECTION NEAR ABUTMENT
SCALE 1:25

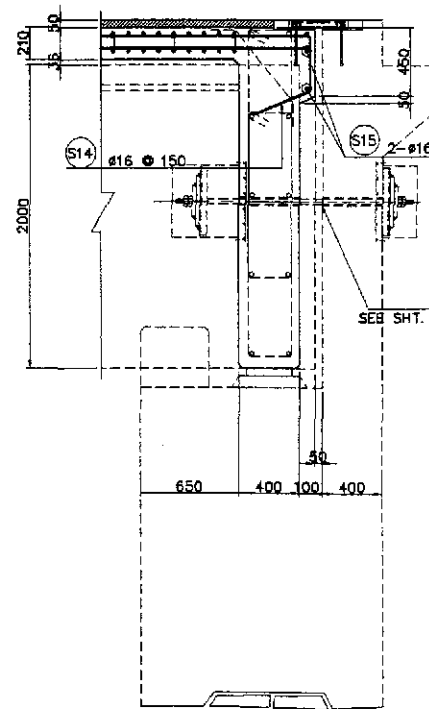


B TRANSVERSE SECTION OVER PIER
SCALE 1:25

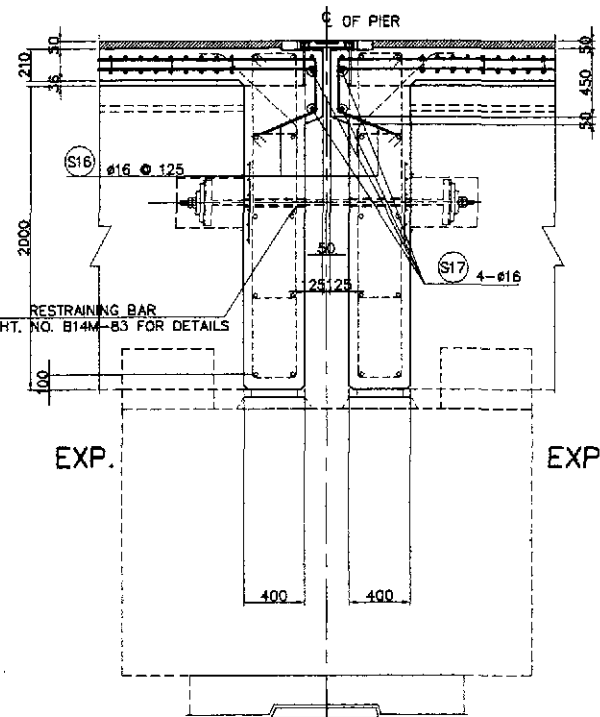
	DATE: 10/17/02 DESIGNED: P. DE JESUS CHECKED: 10/19/02 SUBMITTED: 10/21/02	SIGNATURE: [Signature] P. DE JESUS J. C. SANCOS M. R. [Signature] TEAM LEADER	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BUREAU OF DESIGN	OFFICE OF THE SECRETARY Recommended By: MANUEL M. BONDAN, Undersecretary Approved By: SIMON A. DATUMANONG, Secretary	PROJECT AND LOCATION : THE DETAILED DESIGN STUDY ON UPGRADING INTER-URBAN HIGHWAY SYSTEM ALONG THE PAN-PHILIPPINE HIGHWAY (Pinarid, Cabanatuan and San Jose Bypasses) CABANATUAN BYPASS - CONTRACT PACKAGE IV	SCALE : AS SHOWN FULL SIZE A1	SHEET CONTENTS : BRIDGE NO.14 TALAVERA RIVER BRIDGE DECK SLAB REINF. DETAILS - 2 OF 3 (ULTIMATE STAGE)	SHEET NO. : B14U-48
	Submitted By: DANILLO C. TRAJANO, Project Director		Reviewed By: ADRIANO M. DOROY, Chief, Bridges Division		Recommended By: GILBERTO S. REYES, Director IV (OIC)			



C TRANSVERSE SECTION NEAR PIER
SCALE 1:25



C DETAIL @ ABUTMENT
SCALE 1:25



D DETAIL @ EXP.-EXP. PIER
SCALE 1:25

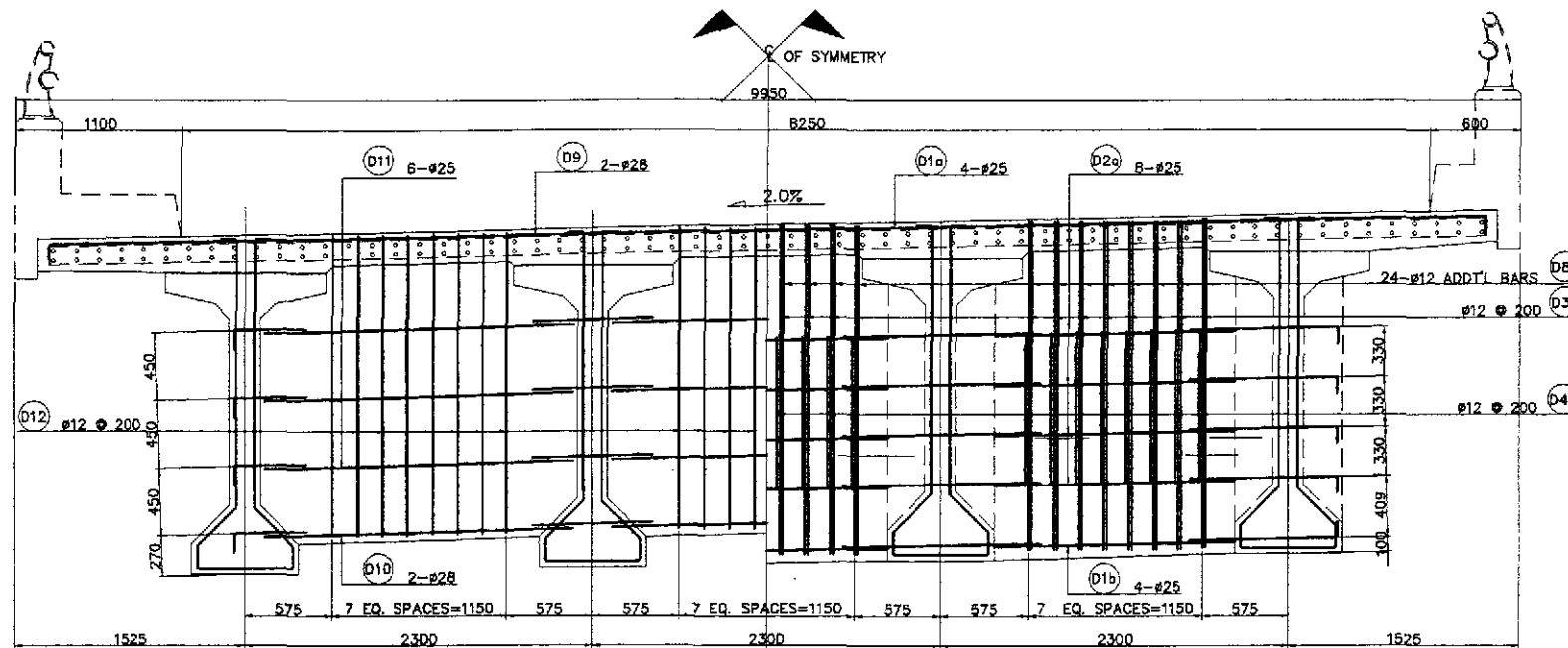
BAR BENDING DIAGRAM

SCHEDULE OF REINFORCEMENT

LOCATION	BAR MARK	SIZE (mm)	BEND TYPE	DIMENSION(mm) OUT TO OUT					LENGTH (mm)	NO. REQ'D.	UNIT WEIGHT (kg/m)	WEIGHT (kg)	
				a	b	c	d	e				GRADE 40	GRADE 80
DECKSLAB	S1	16	A	100	9550				9750	900	1.578	13847	
	S2	16	A	100	9550				9750	900	1.578	13847	
	S3	16	B	119825					119825	73	1.578	13803	
	S4	16	B	26900					26900	16	1.578	678	
	S5	16	B	30900					30900	16	1.578	780	
	S6	16	B	26900					26900	16	1.578	679	
	S7	16	B	33900					33900	16	1.578	856	
	S8	16	B	30900					30900	20	1.578	975	
	S9	16	B	33900					33900	14	1.578	749	
	S10	16	B	14000					14000	8	1.578	177	
	S11	16	B	22000					22000	8	1.578	278	
	S12	16	B	14000					14000	8	1.578	177	
	S13	16	B	28000					28000	8	1.578	353	
	S14	16	B	22000					22000	10	1.578	347	
	S15	16	B	28000					28000	7	1.578	308	
	S16	16	C	50	420	350	423		1243	146	1.578	286	
	S17	16	B	9550					9550	4	1.578	60	
	G14	28	B	119840					119840	8	4.834	4634	4634
	G15	28	B	119840					119840	8	4.834	4634	4634
	G16	28	B	119840					119840	8	4.834	4634	4634
	G17	28	B	26000					26000	16	4.834	2011	2011
	G18	28	B	18000					18000	16	4.834	1392	1392
	G19	28	B	26000					26000	16	4.834	2011	2011
G20	28	B	12000					12000	16	4.834	928	928	
G21	28	B	18000					18000	20	4.834	1740	1740	
G22	28	B	12000					12000	14	4.834	812	812	
G23	12	D	150	110				410	4080	0.888	1485	1485	
TOTAL WEIGHT=											48887	22798	

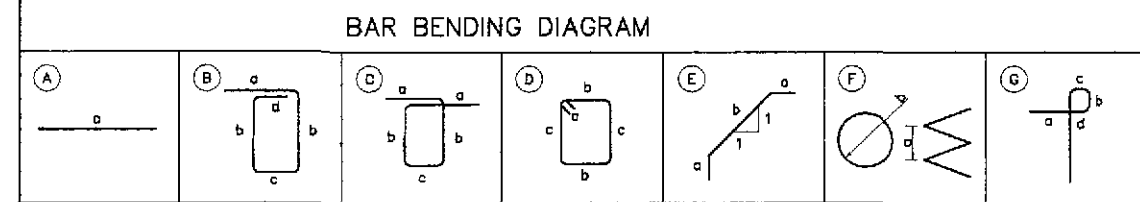
1.) SPLICE LENGTH NOT INCLUDED
2.) MINIMUM LENGTH OF SPLICE IS 1000mm
3.) SPLICING OF CONTINUOUS BARS (#28) IS ALLOWED ONLY 500mm FROM CENTERLINE OF PIERS
5.) ESTIMATED QUANTITY FOR ONE(1) SPAN CONTINUOUS (3 SPANS @ 40000) ONLY

THE REINFORCEMENT SHOWN ON THIS TABLE IS FOR REFERENCE ONLY. THE CONTRACTOR SHOULD CHECKED AND VERIFY ALL DIMENSIONS, SIZES AND QUANTITIES OF REINFORCEMENT.



← HALF SHOWING INTERMEDIATE DIAPHRAGM HALF SHOWING END DIAPHRAGM →

A TRANSVERSE SECTION
SCALE 1:25

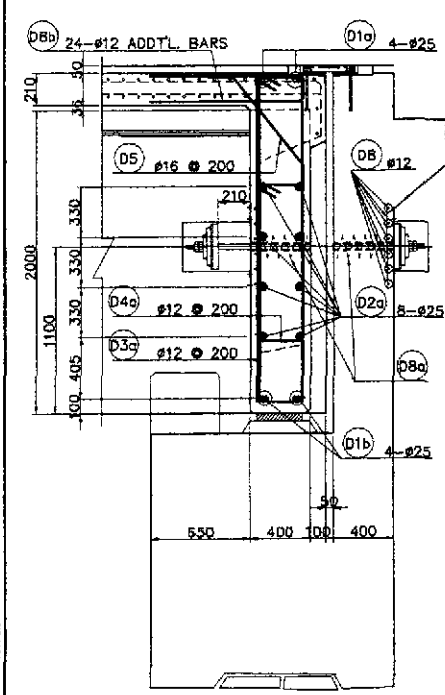


SCHEDULE OF REINFORCEMENT

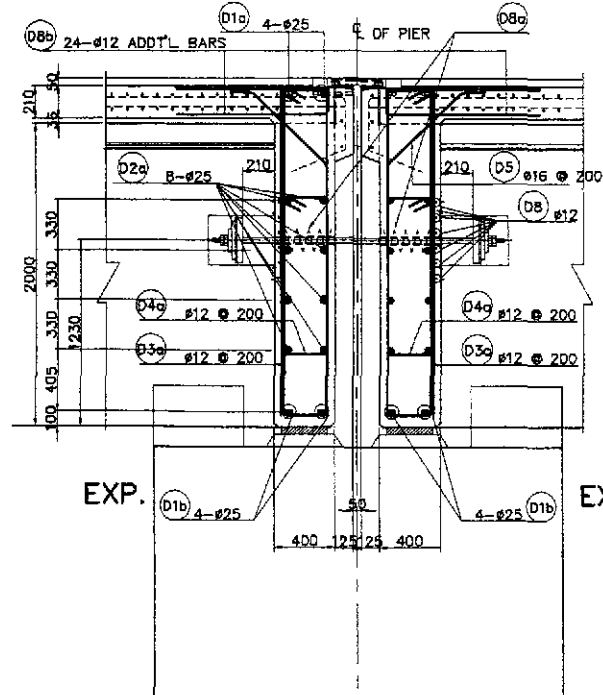
LOCATION	BAR MARK	SIZE (mm)	BEND TYPE	DIMENSION (mm) OUT TO OUT						LENGTH (mm)	NO. REQ'D.	UNIT WEIGHT (kg/m)	WEIGHT (kgs)	
				a	b	c	d	e	f				GRADE 40	GRADE 80
END DIAPHRAGM & PIER DIAPHRAGM	D1a	25	A	9550						9550	24	3.853		883
	D1b	25	A	1580						1580	72	3.853		438
	D2a	25	A	1580						1580	144	3.853		877
	D2b	25	A	7500						7500	20	3.853		578
	D3a	12	B	1000	2170	300	250			5890	144	0.888	753	
	D3b	12	C	1500	2170	500				7840	92	0.888	640	
	D3c	12	D	150	1300	2170				7240	48	0.888	309	
	D4a	12	B	150	300	1550				4000	144	0.888	511	
	D4b	12	B	150	1300	1550				6000	48	0.888	256	
	D4c	12	B	150	500	1550				4400	92	0.888	359	
	D5	16	E	150	770					1070	144	1.578	243	
	D6	25	A	9550						9550	8	3.853		294
D7	25	A	7500						7500	8	3.853		231	
D8	12	A	750						750	288	0.888	192		
D8a	6	F	75	150					1885	42	0.222	18		
D8b	12	G	1000	160	300	2100			3560	48	0.888	152		
SUB TOTAL =												3333	3301	
INTERMEDIATE DIAPHRAGM	D9	28	A	9550						9550	18	4.834		831
	D10	28	A	2000						2000	54	4.834		522
	D11	25	A	2000						2000	162	3.853		1248
	D12	12	D	150	150	1750				4100	216	0.888	786	
SUB TOTAL =												786	2601	
GRAND TOTAL WEIGHT =												4219	5902	

1.) ESTIMATED QUANTITIES FOR ONE (1) SPANS CONT. (3@40 M)
2.) SIX(6) END DIAPHRAGMS
3.) TWO(2) PIER DIAPHRAGMS
4.) NINE(9) INTERMEDIATE DIAPHRAGMS

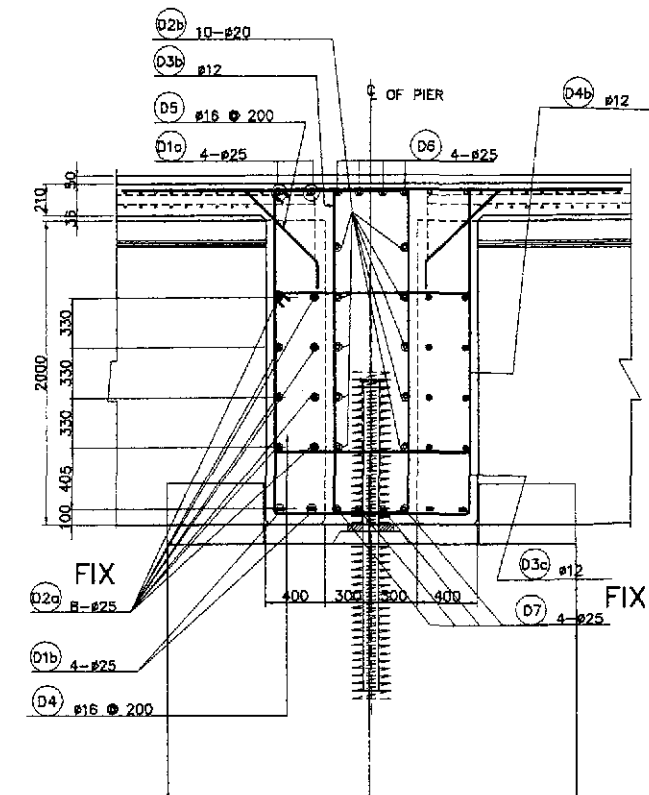
THE REINFORCEMENT SHOWN ON THIS TABLE IS FOR REFERENCE ONLY. THE CONTRACTOR SHOULD CHECK AND VERIFY ALL DIMENSIONS, SIZES AND QUANTITIES OF REINFORCEMENT.



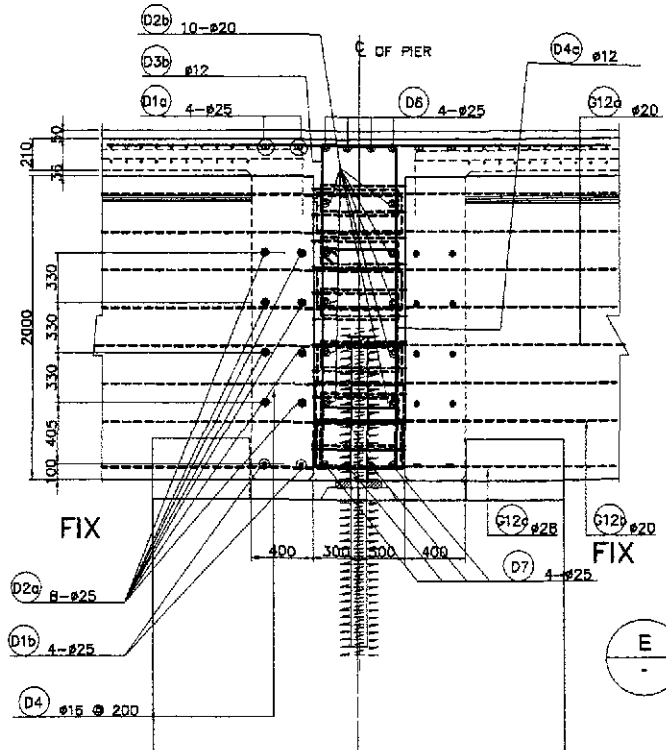
B SECTION @ ABUTMENT
SCALE 1:25



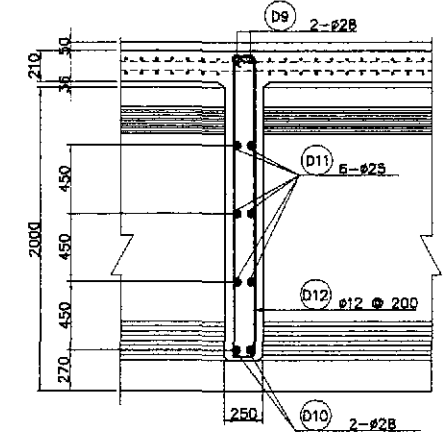
C SECTION @ EXP. PIER
SCALE 1:25



D-1 @ DIAPHRAGM
SCALE 1:25



D-2 @ GIRDER
SCALE 1:25



E SECTION @ INTERMEDIATE DIAPHRAGM
SCALE 1:25

1 END, INTERMEDIATE & CONTINUITY DIAPHRAGM REINF. DETAILS
SCALE AS SHOWN

	DESIGNED	DATE	SIGNATURE		PROJECT AND LOCATION :	SCALE :	SHEET CONTENTS :	SHEET NO. :	
	CHECKED	10/19/02	P. DE JESUS		REPUBLIC OF THE PHILIPPINES	THE DETAILED DESIGN STUDY ON	AS SHOWN	BRIDGE NO.14 TALAVERA RIVER BRIDGE	B14U-50
	SUBMITTED	10/21/02	J. SANTOS		DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS	UPGRADING INTER-URBAN HIGHWAY SYSTEM	FULL SIZE A1	END, INTERMEDIATE & CONTINUITY	
				ALONG THE PAN-PHILIPPINE HIGHWAY		DIAPHRAGM REINFORCEMENT DETAILS			
					(Plaridel, Cabanatuan and San Jose Bypasses)		(ULTIMATE STAGE)		
					CABANATUAN BYPASS - CONTRACT PACKAGE IV				