JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR

FINAL REPORT

QUANTITY CALCULATION REPORT

Building Works

OCTOBER 2002

NIPPON KOEI CO., LTD.

THE DETAILED DESIGN ON PORT REACTIVATION PROJECT IN LA UNION PROVINCE OF THE REPUBLIC OF EL SALVADOR
FINAL REPORT
QUANTITY CALCULATION REPORT
Building Works
OCTOBER 2002 NIPPON KOEI

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
COMISION EJECUTIVA PORTUARIA AUTONOMA (CEPA)

THE DETAILED DESIGN
ON
PORT REACTIVATION PROJECT IN LA UNION PROVINCE
OF
THE REPUBLIC OF EL SALVADOR

FINAL REPORT

QUANTITY CALCULATION REPORT

Building Works

OCTOBER 2002

NIPPON KOEI CO., LTD.

QUANTITY CALCULATION

BUILDING WORK

[3A;PORT ADMINISTRATION BUILDING]

AUGUST 2002

3A01: EARTHWORKS

ADMINISTRATION BLDG.

ITEM NO.	DESCRIPTION	UNIT	LOCATION	Q'TY	QUANTITY CALCULATION	TOTAL Q'TY
3A0101	Excavation for Pile Cap	m3	F1	1	0.95*(2.85*2.85+0.9*2.85+0.9*2.85+0.9*0.9*2)	14.13
			F2	6	0.95*(2.6*2.6+0.9*2.6+0.9*2.6+0.9*0.9*2)*6	74.44
			F3	2	0.95*(2.2*2.2+0.9*2.2+0.9*2.2+0.9*0.9*2)*2	19.80
			F4(Drop-0.5)	6	1.45*(1.7*2.6+1.2*1.7+1.2*2.6+1.2*1.2*2)*6	108.40
			F4	6	0.95*(1.7*2.6+0.9*1.7+0.9*2.6+0.9*0.9*2)*6	56.49
			F5(Drop-0.5)	4	1.45*(1.7*1.7+1.2*1.7+1.2*1.7+1.2*1.2*2)*4	57.13
			F5 , F5A	2	0.95*(1.7*1.7+0.9*1.7+0.9*1.7+0.9*0.9*2)*2	14.38
					SUB TOTAL	344.77
3A0102	Backfilling for Pile Cap & Sal	m3			(344.77-87.47)+0.5*Area of BLDG Profile(42*16+12*8+6*2.5+6*3+1.2*18)-(Conc. Volume -FL;118.21)'	550.39
TOTAL						

CALCULATION		
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CALC FILE No.:		
CALC INDEX No.:		PAGE 001/137
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PREPARED BY	Y. Fujikawa	Jul. 02
CHECKED BY		Aug 15 '02

PAY ITEM NO	DISCRIPTION		TOTAL Qty	UNIT	SUB TOTAL	CALCULATION
	PRECAST PRESTRESS PILE					
*	P1 400*400 L=7000					
	CONCRETE	@1	1.12	m3		0.4 * 0.4 * 7.0
	STRAND ROPE (6-φ1/2")	@1	42.00	m		7.0 * 6
	D16	@1	30.45	Kg		(1.5 + 0.3 + 0.64)* 8 * 1.56
	D10	@1	90.50	Kg		
	(SPIRAL)	PITCH50			53.76	1.6 * 60 * 0.56
		PITCH100			36.74	1.6 * 41 * 0.56
*	P2 450*450 L=7000					
	CONCRETE	@1	1.42	m3		0.45 * 0.45 * 7.0
	STRAND ROPE (6-φ1/2")	@1	42.00	m		7.0 * 6
	D16	@1	30.45	Kg		(1.5 + 0.3 + 0.64)* 8 * 1.56
	D10	@1	101.81	Kg		
	(SPIRAL)	PITCH50			60.48	1.8 * 60 * 0.56
		PITCH100			41.33	1.8 * 41 * 0.56
*	P3 500*500 L=5000					
	CONCRETE	@1	1.25	m3		0.5 * 0.5 * 5.0
	STRAND ROPE (6-φ1/2")	@1	30.00	m		5.0 * 6
	D16	@1	30.45	Kg		(1.5 + 0.3 + 0.64)* 8 * 1.56
	D10	@1	113.12	Kg		
	(SPIRAL)	PITCH50			67.20	2 * 60 * 0.56
		PITCH100			45.92	2 * 41 * 0.56

CALCULATION		
Detailed Design on Port Reactivation Project In La Union Province		
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CALC INDEX No.:		PAGE 002
	INITIAL	DATE
PREPARED BY	Y. Z.	Jul. 02
CHECKED BY	[illegible]	Aug. 15, 02

LA UNION PORT DEVELOPMENT PROJECT
BUILDING WORK

Quantity Calculation Sheet
Piling Work

PAY ITEM NO	DISCRIPTION		TOTAL Qty	UNIT	SUB TOTAL	CALCULATION
3A02	ADMINISTRATION BUILDING					
*	P2(L;5000)	450*450	43	Nos		
*	P3(L;5000)	500*500	30	Nos		
		sum	73	Nos		
·	CONCRETE		81.11	m3		
		P2			43.61	1.42 * 43 * 5/7
		P3			37.50	1.25 * 30
·	STRAND ROPE		1290.00	m		
	(6-ϕ1/2")	P2			1290.00	42.0 * 43 * 5/7
		P3			900.00	30 * 30
·	D16		1587.75	Kg		
		P2 ,P3			1587.75	30.45 * 73 * 5/7
·	D10		6520.62	Kg		
	(SPIRAL)	P2			3127.02	101.81 * 43 * 5/7
		P3			3393.60	113.12 * 30

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:	PAGE 003	
	INITIAL	DATE
PREPARED BY	Y. F.	Jul.02
CHECKED BY	Yalip	Aug '02

[3A03 CONCRETE AND FORMWORK]

SUMMARY OF CONCRETE/FORMWORK/RE-BAR

		ITEM	Concrete (m3)	Forming (m2)	Re-Bar (m) D10	D13	D16	D19	D22	D25	D32		SUB TOTAL ton	TOTAL +Loss4%
1		FOUNDATION	101.26	184.2	0.0	2732.2	469.2	0.0	925.8	0.0	0.0			
2		FOUNDATION BEAM	101.91	449.4	717.3	3940.2	138.0	0.0	0.0	191.4	3069.9			
3		FOUNDATION SUB BEAM	36.61	254.2	934.7	1436.4	0.0	0.0	0.0	1709.7	0.0			
3		1F SLAB	142.32		11386.0	-	-	-	-	-	-			
4		COLUMN	190.60	1114.8	1248.8	12847.2	0.0	0.0	0.0	0.0	8099.3			
5		BEAM	230.01	1579.7	407.8	9880.2	2001.0	0.0	0.0	593.0	10514.2			
6		SUB BEAM	105.07	966.5	3067.5	4523.3	908.3	0.0	0.0	6020.5	48.2			
7		SLAB	231.94	1216.5	-	-	-	-	-	-	-		22.82	23.74
8		WALL	101.51	1015.1	-	-	-	-	-	-	-		9.47	9.85
9		MISCELLANEOUS	50.02	566.90	-	-	-	-	-	-	-		2.57	2.67
												(7,8,9) SUB TOTAL		
													34.86	36.25
	SUB TOTAL		1291.24	7347.32	17762.1	35359.5	3516.5	0	925.8	8514.6	21731.5			
		UNIT WEIGHT (kg/m)			0.56	0.995	1.56	2.25	3.04	3.98	6.23			
		WEIGHT NET (ton)			9.95	35.18	5.49	0.00	2.81	33.89	135.39		222.71	
	TOTAL	WEIGHT+LOSS 4%(ton)			10.34	36.59	5.71	0.00	2.93	35.24	140.80		231.61	267.9

CALCULATION

Detailed Design
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CALC INDEX No.: PAGE 004

	INITIAL	DATE
PREPARED BY	Y F	Jul. 02
CHECKED BY	[illegible]	Aug. 02

LA UNION PORT DEVELOPMENT PROJECT

CALCULATION
Detailed Design on Port Reactivation Project in La Union Province
CALC FILE No.:
CALC INDEX No.: PAGE 005

	INITIAL	DATE
PREPARED BY	YF	Jul.02
CHECKED BY	[illegible]	[illegible]

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

[3A03 CONCRETE AND FORMWORK]

SUMMARY ; FL BASE

CONCRETE (m3)

FL		FOUNDATION	FOUNDATION BEAM	OUTER SLAB	COLUMN	BEAM	SUB BEAM	SLAB	WALL	MISCELLAN.		SUB TOTAL	TOTAL
-1F		101.26	138.52	40.34	12.29			101.98				394.4	
+1F					65.07	72.19	38.70	73.32	25.76	15.28		290.3	
2F					37.17	55.20	21.03	48.44	15.15	8.06		185.0	
3F					37.17	49.95	19.91	52.42	15.15	15.71		190.3	
4F					12.97	17.88	9.07	19.61	15.15			74.7	
5F					12.97	17.88	9.07	19.61	15.15			74.7	
6F					12.97	16.92	7.29	18.55	15.15	10.97		81.8	
TOTAL	-FL	101.26	138.52	40.34	12.29			101.98				394.4	1291.2
	+FL				178.31	230.01	105.07	231.94	101.51	50.02		896.9	

FORMING (m2)

FL		FOUNDATION	FOUNDATION BEAM	OUTER SLAB	COLUMN	BEAM	SUB BEAM	SLAB	WALL	MISCELLAN.		SUB TOTAL	TOTAL
-1F		184.24	703.60		72.38								960.2
+1F					382.72	489.47	360.41	403.98	257.58	192.62			2086.8
2F					218.12	366.22	186.56	178.75	151.50	107.52			1208.7
3F					218.12	345.84	171.28	219.36	151.50	157.08			1263.2
4F					74.48	124.41	85.88	130.73	151.50				567.0
5F					74.48	124.41	85.88	130.73	151.50				567.0
6F					74.48	129.31	76.55	152.99	151.50	109.68			694.5
TOTAL	-FL	184.24	703.60	0	72.38							960.2	7347.3
	+FL				1042.40	1579.65	966.55	1216.53	1015.07	566.90		6387.1	

TAKE-OFF SHEET
-CONCRETE -FORMMING -RE BAR

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

FL BASE

Story	CONCRETE						FORMING				REINFORCEMENT BAR											
	Symbol	Width (mm)	Height (mm)	Length (m)	Q'ty	Volume (m^3)	Width (mm)	Height (mm)	Q'ty	Area (m^2)	Symbol	Dia. (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D32
	[3A03 PORT ADMINISTRATION BUILDING (Floor Based)]																					
			Fc=210kg/cm²					(R)														
	TOTAL			394.38		1291.24		200.38		7347.32												
	1FL_Down			394.38		394.38				960.22						5023.8	9028.0	607.2	0.0	925.8	1901.1	4899.8
	Base					101.26				184.24						0.0	2732.2	469.2	0.0	925.8	0.0	0.0
	FG					101.91				449.39						717.3	3940.2	138.0	0.0	0.0	191.4	3069.9
	FB					36.61				254.20						934.7	1436.4	0.0	0.0	0.0	1709.7	0.0
	C(-FL)					12.29				72.38						144.2	919.2	0.0	0.0	0.0	0.0	1829.9
	Outside Slab on Grade					40.34										3227.6						
			Sum of 1F Slab Concrete																			
	1F Slab			142.32		101.98										8158.4						
	1F_Up					290.31		45.95		2086.78												
	C(1F)					65.07				382.72						369.6	4515.0	0.0	0.0	0.0	0.0	2527.2
	2G					72.19				489.47						128.5	3090.0	617.8	0.0	0.0	69.8	3277.0
	2B					38.70		23.52		360.41						729.1	1838.4	399.6	0.0	0.0	2044.1	0.0
	2F Slab					73.32				403.98												
	1F Wall					25.76				257.58												
	2F Balcony					8.06				107.52												
	2F Parapet					7.22		22.43		85.10												
	2F_Up					185.05		0.00		1208.66												
	C(2F)					37.17				218.12						245.0	2499.0	0.0	0.0	0.0	0.0	1436.4
	3G					55.20				366.22						94.5	2300.0	448.2	0.0	0.0	69.8	2491.1
	3B					21.03				186.56						424.9	1037.4	206.0	0.0	0.0	1208.3	0.0
	3F Slab					48.44				178.75												
	2F Wall					15.15				151.50												
	3F Balcony					8.06				107.52												
	3F_Up					190.32		9.80		1208.18												
	C(3F)					37.17				218.12						245.0	2499.0	0.0	0.0	0.0	0.0	1058.4
	4G					49.95				346.84						90.9	2178.4	448.3	0.0	0.0	453.4	2039.5
	4B					19.91				174.28						393.8	833.7	186.2	0.0	0.0	1077.2	48.2
	4F Slab					52.42				219.26												
	3F Wall					15.15				151.50												
	4F Balcony					0.00																
	4F Parapet					15.71		9.80		157.08												

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PREPARED BY	Y.E	Jul.02
CHECKED BY	Lolly	Aug.02

TAKE-OFF SHEET
-CONCRETE -FORMMING -RE BAR

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

FL BASE

Story	CONCRETE						FORMING				REINFORCEMENT BAR											
	Symbol	Width (mm)	Height (mm)	Length (m)	Q'ty	Volume (m^3)	Width (mm)	Height (mm)	Q'ty	Area (m^2)	Symbol	Dia. (mm)	Length (m)	Nos	Q'ty	D10	D13	D16	D19	D22	D25	D32
	4F_UP					74.67		35.65		566.99												
	C(4F)					12.97				74.48						98.0	805.0	0.0	0.0	0.0	0.0	478.8
	5G					17.88		35.65		124.41						31.8	780.7	162.2	0.0	0.0	0.0	944.9
	5B					9.07				85.88						433.1	323.0	58.3	0.0	0.0	603.0	0.0
	5F Slab					19.61				130.73												
	4F Wall					15.15				151.50												
	5F_UP					74.67		35.65		566.99												
	C(5F)					12.97				74.48						73.5	805.0	0.0	0.0	0.0	0.0	478.8
	6G					17.88		35.65		124.41						31.8	780.7	162.2	0.0	0.0	0.0	944.9
	6B					9.07				85.88						433.1	323.0	58.3	0.0	0.0	545.8	0.0
	6F Slab					19.61				130.73												
	5F Wall					15.15				151.50												
	6F_UP					81.84		73.33		694.50												
	C(6F)					12.97				74.48						73.5	805.0	0.0	0.0	0.0	0.0	289.8
	RG					16.92		35.65		129.31						30.5	750.4	162.2	0.0	0.0	0.0	816.7
	RB					7.29				76.55						653.6	167.8	0.0	0.0	0.0	542.0	0.0
	RF Slab					18.55				152.99												
	6F Wall					15.15				151.50												
	RF Parapet					10.97		37.68		109.68												

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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	INITIAL	DATE
PREPARED BY	T. F.	Jul 02
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	3A03 ADMINISTRATION BUILDING							(R壁面)														
	Base			101.26		101.26	184.24			184.24							2732.20	469.20		925.80		
	FG			101.91		101.91	449.39			449.39						717.30	3940.20	133.00	0.00	0.00	181.40	3069.88
	FB			36.61		36.61	254.20			254.20						934.70	1436.40	0.00	0.00	0.00	1709.74	0.00
	1F土M	268.96m2*0.15=				40.34				0.00				268.96m2*12m/m2=		3227.60	0.0	0.0	0.0	0.0	0.0	0.0
	C(-FL)					12.29				72.38						144.20	919.20	0.00	0.00	0.00	0.00	1629.68
	CONCRETE SUM(-1FL)Fc;210kg/cm2					292.40	FORMING SUM(-1FL)			960.22	RE-BAR SUM(-1FL)					5023.80	9026.00	607.20	0.00	925.80	1901.14	4899.76
	C(1F)					65.07				382.72						369.60	4515.00	0.00	0.00	0.00	0.00	2527.20
	C(2F)					37.17				218.12						245.00	2499.00	0.00	0.00	0.00	0.00	1436.40
	C(3F)					37.17				218.12						245.00	2499.00	0.00	0.00	0.00	0.00	1058.40
	C(4F)					12.97				74.48						98.00	805.00	0.00	0.00	0.00	0.00	478.80
	C(5F)					12.97				74.48						73.50	805.00	0.00	0.00	0.00	0.00	478.80
	C(6F)					12.97				74.48						73.50	805.00	0.00	0.00	0.00	0.00	289.80
	C SUM+1FL			190.60		178.31	1114.8			1042.40						1104.60	11928.0	0.00	0.00	0.00	0.00	6289.40
														COLUMN RE-Bar SUM		1246.80	12847.20	0.00	0.00	0.00	0.00	8099.28
	2G					72.19				489.47						128.5	3090.0	617.8	0.0	0.0	69.8	3277.0
	3G					55.20				366.22						94.5	2300.0	448.2	0.0	0.0	69.8	2491.1
	4G					49.95				345.84						90.9	2178.4	448.3	0.0	0.0	453.4	2039.5
	5G					17.88		35.65		88.76	124.41					31.8	760.7	162.2	0.0	0.0	0.0	944.9
	6G					17.88		35.65		88.76	124.41					31.8	760.7	162.2	0.0	0.0	0.0	944.9
	RG					16.92		35.65		93.66	129.31					30.5	760.4	162.2	0.0	0.0	0.0	816.7
	G SUM			230.01		230.01	1472.7	106.95		1579.65						407.30	9850.20	2001.00	0.00	0.00	592.96	10514.16
	2B					38.70		23.52		336.89	360.41					729.1	1838.4	389.6	0.0	0.0	2044.1	0.0
	3B					21.03				186.56						424.9	1037.4	206.0	0.0	0.0	1208.3	0.0
	4B					19.91				171.28						393.8	833.7	186.2	0.0	0.0	1077.2	48.2
	5B					9.07				85.88						433.1	323.0	58.3	0.0	0.0	603.0	0.0
	6B					9.07				85.88						433.1	323.0	58.3	0.0	0.0	545.8	0.0
	RB					7.29				75.55						553.6	167.8	0.0	0.0	0.0	542.0	0.0
	B SUM			105.07		105.07	943.03	23.52		966.55						3087.50	4523.54	908.30	0.00	0.00	6020.50	48.22
	1F Slab		101.98			101.98				0.00		(1FL Slab on Grade SUM)				8158.40						
	(Internal Fc;210kg/cm2)											11386.0										
	2F Slab					73.32				403.98												
	3F Slab					46.44				178.75												

CALCULATION
Detailed Design
on Port Reactivation Project
in La Union Province

CALC FILE No.:

CALC INDEX No.: PAGE 008

	INITIAL	DATE
PREPARED BY	Y-F	Jul.02
CHECKED BY		Aug.02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	4F Slab					52.42				219.36												
	5F Slab					19.61				130.73												
	6F Slab					19.61				130.73												
	RF Slab					18.55				152.69												
	Slab SUM		101.98	231.94		333.92	1216.5			1216.53												
	1F Wall					25.76				257.58												
	2F Wall					15.15				151.50												
	3F Wall					15.15				151.50												
	4F Wall					15.15				151.50												
	5F Wall					15.15				151.50												
	6F Wall					15.15				151.50												
	Wall SUM			101.51		101.51	1015.1			1015.07												
	2F Balcony					8.06				107.52												
	3F Balcony					8.06				107.52	107.52											
	4F Balcony					0.00				0.00												
	Balcony SUM			16.13		16.13	215.04			215.04												
	2F Parapet					7.22		22.43		62.68	65.10											
	4F Parapet					15.71		9.80		147.28	157.08											
	RF Parapet					10.97		37.68		72.00	109.66											
	Parapet SUM			33.89		33.89	261.98	69.91		351.86	351.86											
	TOTAL		304.38 (-1FL)	909.1		1291.24	7218.3	200.38 R(⊞6)		7347.32												
	Base																					
	F1	2.85	2.85	0.80	1	6.50	11.40	0.80	1	9.12	B.L	22	2.85	18	1					51.3		
											B.L	22	2.85	18	1					51.3		
											T.L	13	4.25	36	1		153.0					
											T.L	13	11.4	2	1		22.8					
	F2	2.60	2.60	0.80	5	32.45	10.40	0.80	8	49.92	B.L	22	2.60	14	8					218.4		
											B.L	22	2.60	14	8					218.4		
											T.L	13	4	22	8		672.0					
											T.L	13	10.4	2	8		124.8					
	F3	2.20	2.20	0.80	2	7.74	8.80	0.80	2	14.08	B.L	22	2.20	12	2					52.8		
											B.L	22	2.20	12	2					52.8		
											T.L	13	3.6	24	2		172.8					
											T.L	13	8.8	2	2		35.2					

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
CALC FILE No.:		
CALC INDEX No.:	PAGE 009	
	INITIAL	DATE
PREPARED BY	Y. F	3 Jul. 07
CHECKED BY	[illegible]	Aug 3 '07

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	F4	1.70	2.60	0.80	12	42.43	8.60	0.80	12	82.56	B.L	22	2.60	9	12					280.8		
											B.L	16	1.70	14	12			285.6				
											T.L	13	3.3	24	12		950.4					
											T.L	13	8.6	2	12		206.4					
	F5	1.70	1.70	0.70	5	10.12	6.80	0.70	5	23.80	B.L	16	1.70	9	5			76.5				
											B.L	16	1.70	9	5			76.5				
											T.L	13	2.9	18	5		261.0					
											T.L	13	6.8	2	5		68.0					
	F5A	1.70	1.70	0.70	1	2.02	6.80	0.70	1	4.76	B.L	16	1.70	9	1			15.3				
											B.L	16	1.70	9	1			15.3				
											T.L	13	2.9	18	1		52.2					
											T.L	13	6.8	2	1		13.6					
	Base	SUM				101.28				184.24							2732.20	469.20	0.00	925.80	0.00	0.00
	FC																					
A,B,C	FB1	0.40	0.80	5.35	15	25.68	1.60	5.35	21	179.76	T.B	32	6.00	4	15							360.0
2-7											T.B	32	2.23	2	15							66.9
											B.B	32	6.00	4	15							360.0
											STR	13	2.40	28	15		1008.0					
											W.B	10	6.00	2	15	180.0						
											Tie	10	0.40	7	15	42.0						
A,B,C	FB1	0.40	0.80	5.35	6	10.27					T.B	32	6.83	4	6							163.9
1-2,7-8											T.B	32	2.25	1	6							13.4
											T.B	32	3.05	3	6							54.9
											B.B	32	6.74	4	6							161.8
											B.B	32	3.05	3	6							54.9
											STR	13	2.40	36	6		518.4					
											W.B	10	6.00	2	6	72.0						
											Tie	10	0.40	7	6	16.8						
D	FB2	0.35	0.80	5.35	2	3.00	1.60	5.35	2	17.12	T.B	25	13.97	3	1						41.9	
											B.B	25	13.97	3	1						41.9	
											STR	13	2.30	56	1		128.8					
											W.B	10	6.00	2	2	24.0						
											Tie	10	0.35	7	2	4.9						
1	FB2	0.35	0.80	7.58	1	2.12	1.60	7.58	1	12.12	T.B	25	17.93	3	1						53.8	
	FB2	0.35	0.80	7.03	1	1.97	1.60	7.03	1	11.24	B.B	25	17.93	3	1						53.8	
											STR	13	2.30	76	1		174.8					
											W.B	10	6.00	2	2	24.0						
											Tie	10	0.35	17	1	6.0						
2378	FB1	0.40	0.80	7.58	4	9.70	1.60	7.58	4	48.51	T.B	32	10.36	4	4							165.8
											T.B	32	2.25	1	4							9.0
											T.B	32	3.05	3	4							36.6
											B.B	32	10.38	4	4							165.8
											B.B	32	3.05	3	4							36.6
											STR	13	2.40	48	4		460.8					
											W.B	10	6.30	2	4	66.4						
											Tie	10	0.40	9	4	14.4						

CALCULATION

Detailed Design on Port Reactivation Project in La Union Province

CALC FILE No.:		
CALC INDEX No.:		PAGE 010
	INITIAL	DATE
PREPARED BY	T-B	Jul.09
CHECKED BY	[illegible]	Aug02

	CONCRETE						FORMING				RE-BAR (m)												
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
		0.40	0.80	7.03	4	9.00	1.60	7.03	4	44.99	T.B	32	8.53	4	4							136.5
											T.B	32	2.25	1	4							9.0
											T.B	32	3.05	3	4							36.6
											B.B	32	8.53	4	4							136.5
											B.B	32	3.05	3	4							36.6
											STR	13	2.40	46	4		441.6					
											W.B	10	7.73	2	4	61.8						
											Tie	10	0.40	8	4	12.8						
4, 6	FB1	0.40	0.80	7.30	2	4.67	1.60	7.30	2	23.36	T.B	32	8.80	4	2							70.4
											T.B	32	3.18	1	2							6.4
											T.B	32	3.05	3	2							18.3
											B.B	32	8.80	4	2							70.4
											B.B	32	3.05	3	2							18.3
											STR	13	2.40	48	2		230.4					
											W.B	10	8.00	2	2	32.0						
											Tie	10	0.40	9	2	7.2						
	FB5	0.55	0.80	7.03	2	6.19	1.60	7.03	2	22.50	T.B	32	9.01	4	2							72.1
											T.B	32	3.05	4	2							24.4
											T.B	32	9.88	1	2							19.8
											T.B	32	3.05	2	2							12.2
											B.B	32	9.01	4	2							72.1
											B.B	32	9.88	1	2							19.8
											B.B	32	3.05	4	2							24.4
											STR	13	2.70	46	2		248.4					
											W.B	10	7.73	2	2	30.9						
											Tie	10	0.55	7	2	7.7						
		0.55	0.80	7.58	2	6.67	1.60	7.58	2	24.26	T.B	32	9.08	4	2							72.6
											T.B	32	3.05	4	2							24.4
											T.B	32	9.88	1	2							19.8
											T.B	32	3.05	2	2							12.2
											B.B	32	9.08	4	2							72.6
											B.B	32	9.88	1	2							19.8
											B.B	32	3.05	4	2							24.4
											STR	13	2.70	49	2		264.6					
											W.B	10	8.28	2	2	33.1						
											Tie	10	0.55	9	2	9.9						
5	FB5	0.55	0.80	7.03	1	3.09	1.60	7.03	1	11.25	T.B	32	9.01	5	1							45.1
											T.B	32	2.25	4	1							9.0
											B.B	32	9.01	5	1							45.1
											STR	13	2.70	46	1		124.2					
											W.B	10	8.28	2	1	16.6						
											Tie	10	0.55	7	1	3.9						
		0.55	0.80	7.58	1	3.34	1.60	7.58	1	12.13	T.B	32	9.08	5	1							45.4
											T.B	32	2.25	2	1							4.5
											T.B	32	3.05	4	1							12.2
											B.B	32	9.08	5	1							45.4
											B.B	32	3.05	4	1							12.2
											STR	13	2.70	49	1		132.3					
											W.B	10	8.28	2	1	16.6						
											Tie	10	0.55	9	1	5.0						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 011
	INITIAL	DATE
PREPARED BY	P.F	Jul.08
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
		0.55	0.80	7.30	1	3.21	1.60	7.30	1	11.68	T.B	32	8.80	5	1							44.0
											T.B	32	2.25	2	1							4.5
											T.B	32	3.05	4	1							12.2
											B.B	32	8.80	5	1							44.0
											B.B	32	3.05	4	1							12.2
											STR	13	2.70	48	1		129.6					
											W.B	10	8.00	2	1	16.0						
											Tie	10	0.55	9	1	5.0						
		0.55	0.80	2.80	1	1.23	1.60	2.80	1	4.48	T.B	32	3.95	7	1							27.7
											B.B	32	3.95	7	1							27.7
											STR	13	2.70	29	1		78.3					
											W.B	10	3.15	2	1	6.3						
											Tie	10	0.55	4	1	2.2						
	ADD.					11.77	1.00	2.80	10	26.00	ADD	16	2.30	60	1			138.0				
	FG	SUM				101.91				449.39						717.30	3940.20	138.00	0.00	0.00	191.40	3089.88
	FB																					
A-B	FB3	0.30	0.60	5.63	1	1.01	1.20	5.63	1	6.76	T.B	25	6.64	3	1						19.9	
											B.B	25	6.64	3	1						19.9	
											STR	13	1.80	30	1		54.0					
											W.B	10	8.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.60	1	1.01	1.20	5.60	1	6.72	T.B	25	7.00	3	1						21.0	
											B.B	25	7.00	3	1						21.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	8.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.53	1	1.00	1.20	5.53	1	6.64	T.B	25	7.00	3	1						21.0	
											B.B	25	7.00	3	1						21.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	8.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.45	2	1.96	1.20	5.45	2	13.08	T.B	25	6.53	3	2						39.2	
											B.B	25	6.53	3	2						39.2	
											STR	13	1.80	29	2		104.4					
											W.B	10	8.00	2	2	24.0						
											Tie	10	0.30	7	2	4.2						
	FB3A	0.30	0.60	5.40	1	0.97	1.20	5.40	1	6.48	T.B	25	7.02	3	1						21.1	
											T.B	25	2.41	4	1						9.6	
											B.B	25	7.02	3	1						21.1	
											B.B	25	2.41	4	1						9.6	
											STR	13	1.80	28	1		50.4					
											W.B	10	8.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.58	2	2.01	1.20	5.58	2	13.39	T.B	25	7.20	3	2						43.2	
											T.B	25	2.41	4	2						19.3	
											B.B	25	7.20	3	2						43.2	
											B.B	25	2.41	4	2						19.3	
											STR	13	1.80	28	2		100.8					
											W.B	10	8.00	2	2	24.0						
											Tie	10	0.30	7	2	4.2						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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CALC INDEX No.:		PAGE 0/2
	INITIAL	DATE
PREPARED BY	Y.F	Jul. 07
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
		0.30	0.60	5.80	1	1.01	1.20	5.60	1	6.72	T.B	25	7.20	3	1						21.6	
											T.B	25	2.41	4	1						9.6	
											B.B	25	7.20	3	1						21.6	
											B.B	25	2.41	4	1						9.6	
											STR	13	1.80	28	1		50.4					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.80	1	1.04	1.20	5.80	1	6.96	T.B	25	7.42	3	1						22.3	
											T.B	25	2.41	4	1						9.6	
											B.B	25	7.42	3	1						22.3	
											B.B	25	2.41	4	1						9.6	
											STR	13	1.80	30	1		54.0					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
	FB4	0.25	0.40	4.28	1	0.43	0.80	4.28	1	3.42	T.B	25	5.63	2	1						11.3	
											B.B	25	5.63	2	1						11.3	
											STR	10	1.30	23	1	29.9						
		0.25	0.40	3.30	1	0.33	0.80	3.30	1	2.64	T.B	25	4.26	2	1						8.5	
											B.B	25	4.26	2	1						8.5	
											STR	10	1.30	18	1	23.4						
		0.25	0.40	3.30	1	0.33	0.80	3.30	1	2.64	T.B	25	4.92	2	1						9.8	
											B.B	25	4.92	2	1						9.8	
											STR	10	1.30	18	1	23.4						
		0.25	0.40	5.40	1	0.64	0.80	5.40	1	5.12	T.B	25	7.41	2	1						14.8	
											B.B	25	7.41	2	1						14.8	
											STR	10	1.30	33	1	42.9						
		0.25	0.40	2.60	1	0.26	0.80	2.60	1	2.08	T.B	25	3.41	2	1						6.8	
											B.B	25	3.41	2	1						6.8	
											STR	10	1.30	14	1	18.2						
		0.25	0.40	2.38	1	0.24	0.80	2.38	1	1.90	T.B	25	4.00	2	1						8.0	
											B.B	25	4.00	2	1						8.0	
											STR	10	1.30	13	1	16.9						
	FB4A	0.25	0.40	4.10	1	0.41	0.80	4.10	1	3.28	T.B	25	5.72	2	1						11.4	
											B.B	25	5.72	2	1						11.4	
											B.B	25	4.05	2	1						8.1	
											STR	10	1.30	22	1	28.6						
	FB4	0.25	0.40	1.40	2	0.28	0.80	1.40	2	2.24	T.B	25	3.02	2	2						12.1	
											B.B	25	3.02	2	2						12.1	
											STR	10	1.30	8	2	20.8						
		0.25	0.40	3.23	1	0.32	0.80	3.23	1	2.58	T.B	25	4.85	2	1						9.7	
											B.B	25	4.85	2	1						9.7	
											STR	10	1.30	18	1	23.4						
		0.25	0.40	2.65	1	0.27	0.80	2.65	1	2.12	T.B	25	4.27	2	1						8.5	
											B.B	25	4.27	2	1						8.5	
											STR	10	1.30	15	1	19.5						
ABC	FB4	0.25	0.40	1.18	3	0.35	0.80	1.18	3	2.83	T.B	25	1.99	2	3						11.9	
											B.B	25	1.99	2	3						11.9	
											STR	10	1.30	7	3	27.3						
A	FB3	0.30	0.60	15.30	1	2.75	1.20	15.30	1	18.36	T.B	25	16.32	3	1						49.0	
											B.B	25	16.32	3	1						49.0	
											STR	13	1.80	77	1		138.6					
											W.B	10	15.60	2	1	31.6						
											Tie	10	0.30	16	1	4.8						

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
CALC FILE No.:		
CALC INDEX No.:	PAGE 013	
	INITIAL	DATE
PREPARED BY	Y.F	Jul.02
CHECKED BY	CAH	Aug 02

	CONCRETE						FORMING				RE-BAR (m)												
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
		0.30	0.60	0.55	2	0.20	1.20	0.55	2	1.32	T.B	25	2.17	3	2						13.0	
											B.B	25	2.17	3	2						13.0	
											STR	13	1.80	4	2		14.4					
											W.B	10	1.00	2	2	4.0						
											Tie	10	0.30	2	2	1.2						
	FB3A	0.30	0.60	0.55	2	0.20	1.20	0.55	2	1.32	T.B	25	2.17	3	2						13.0	
											B.B	25	2.17	5	2						21.7	
											STR	13	1.80	4	2		14.4					
											W.B	10	1.00	2	2	4.0						
											Tie	10	0.30	2	2	1.2						
A	FB4	0.25	0.40	3.73	1	0.37	0.80	3.73	1	2.98	T.B	25	5.35	2	1						10.7	
											B.B	25	5.35	2	1						10.7	
											STR	10	1.30	20	1	26.0						
B-C	FB3	0.30	0.60	5.83	2	2.03	1.20	5.83	2	13.51	T.B	25	6.64	3	2						39.8	
											B.B	25	6.64	3	2						39.8	
											STR	13	1.80	30	2		108.0					
											W.B	10	6.00	2	2	24.0						
											Tie	10	0.30	7	2	4.2						
		0.30	0.60	5.60	1	1.01	1.20	5.60	1	6.72	T.B	25	7.00	3	1						21.0	
											B.B	25	7.00	3	1						21.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.60	1	1.01	1.20	5.60	1	6.72	T.B	25	7.61	3	1							
											B.B	25	7.61	3	1							
											STR	13	1.80	29	1							
											W.B	10	6.00	2	1							
											Tie	10	0.30	7	1							
		0.30	0.60	5.53	1	1.00	1.20	5.53	1	6.64	T.B	25	7.00	3	1						21.0	
											B.B	25	7.00	3	1						21.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.45	1	0.98	1.20	5.45	1	6.54	T.B	25	6.00	3	1						18.0	
											B.B	25	6.00	3	1						18.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.45	1	0.98	1.20	5.45	1	6.54	T.B	25	7.00	3	1						21.0	
											B.B	25	7.00	3	1						21.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.53	1	1.00	1.20	5.53	1	6.64	T.B	25	6.00	3	1						18.0	
											B.B	25	6.00	3	1						18.0	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.60	1	1.01	1.20	5.60	1	6.72	T.B	25	7.61	3	1						22.8	
											B.B	25	7.61	3	1						22.8	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						

CALCULATION
Detailed Design
...on Port Reactivation Project
In La Union Province
CALC FILE No.:
CALC INDEX No.: PAGE 014

	INITIAL	DATE
PREPARED BY	L.F	Jul 02
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)												
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	FB4	0.25	0.40	3.80	1	0.38	0.80	3.80	1	3.04	T.B	25	4.76	2	1						9.5	
											B.B	25	4.76	2	1						9.5	
											STR	10	1.30	20	1	26.0						
		0.25	0.40	3.65	1	0.37	0.80	3.65	1	2.92	T.B	25	4.61	2	1						9.2	
											B.B	25	4.61	2	1						9.2	
											STR	10	1.30	20	1	26.0						
		0.25	0.40	3.65	1	0.37	0.80	3.65	1	2.92	T.B	25	5.27	2	1						10.5	
											B.B	25	5.27	2	1						10.5	
											STR	10	1.30	20	1	26.0						
		0.25	0.40	3.53	1	0.35	0.80	3.53	1	2.82	T.B	25	4.49	2	1						9.0	
											B.B	25	4.49	2	1						9.0	
											STR	10	1.30	19	1	24.7						
		0.25	0.40	3.53	1	0.35	0.80	3.53	1	2.82	T.B	25	5.15	2	1						10.3	
											B.B	25	5.15	2	1						10.3	
											STR	10	1.30	19	1	24.7						
		0.25	0.40	3.53	1	0.35	0.80	3.53	1	2.82	T.B	25	3.88	2	1						7.8	
											B.B	25	3.88	2	1						7.8	
											STR	10	1.30	19	1	24.7						
		0.25	0.40	3.18	1	0.32	0.80	3.18	1	2.54	T.B	25	4.80	2	1						9.6	
											B.B	25	4.80	2	1						9.6	
											STR	10	1.30	17	1	22.1						
		0.25	0.40	1.55	1	0.16	0.80	1.55	1	1.24	T.B	25	3.17	2	1						6.3	
											B.B	25	3.17	2	1						6.3	
											STR	10	1.30	9	1	11.7						
-B	FB3	0.30	0.60	3.43	2	1.23	1.20	3.43	2	8.23	T.B	25	4.74	3	1						14.2	
											B.B	25	4.74	3	1						14.2	
											STR	13	1.80	19	1		34.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	5	1	1.5						
B-C	FB3	0.30	0.60	5.53	1	1.00	1.20	5.53	1	6.64	T.B	25	7.74	3	1						23.2	
											B.B	25	7.74	3	1						23.2	
											STR	13	1.80	29	1		52.2					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.65	1	1.02	1.20	5.65	1	6.78	T.B	25	6.74	3	1						20.2	
											B.B	25	6.74	3	1						20.2	
											STR	13	1.80	30	1		54.0					
											W.B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
	FB4	0.25	0.40	4.18	1	0.42	0.80	4.18	1	3.34	T.B	25	5.80	2	1						11.6	
											B.B	25	5.80	2	1						11.6	
											STR	10	1.30	22	1	28.6						
		0.25	0.40	3.15	1	0.32	0.80	3.15	1	2.52	T.B	25	4.77	2	1						9.5	
											B.B	25	4.77	2	1						9.5	
											STR	10	1.30	17	1	22.1						

CALCULATION

Detailed Design on Port Reactivation Project in La Union Province

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	INITIAL	DATE
PREPARED BY	L.E	July 02
CHECKED BY	[illegible]	August

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
-D	FB3	0.30	0.60	6.00	1	1.08	1.20	6.00	1	7.20	T,B	25	8.01	3	1						24.0	
									(曲面)		B,B	25	8.01	3	1						24.0	
											STR	13	1.80	31	1		55.8					
											W,B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	6.00	1	1.08	1.20	6.00	1	7.20	T,B	25	7.01	3	1						21.0	
									(曲面)		B,B	25	7.01	3	1						21.0	
											STR	13	1.80	31	1		55.8					
											W,B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
		0.30	0.60	5.65	1	1.02	1.20	5.65	1	6.78	T,B	25	7.25	3	1						21.8	
											B,B	25	7.25	3	1						21.8	
											STR	13	1.80	30	1		54.0					
											W,B	10	6.00	2	1	12.0						
											Tie	10	0.30	7	1	2.1						
	FB3A	0.30	0.60	2.30	1	0.41	1.20	2.30	1	2.76	T,B	25	3.61	3	1						10.8	
											B,B	25	3.61	3	1						10.8	
											STR	13	1.80	13	1		23.4					
											W,B	10	6.00	2	1	12.0						
											Tie	10	0.30	4	1	1.2						
	FB	SUM				26.61				254.20						934.70	1436.40	0.00	0.00	0.00	1709.74	0.00
	C(-FL)					0.00				0.00												
	C1	0.70	0.65	0.80	10	3.64	2.70	0.80	10	21.60	M,B	32	3.58	18	10							644.4
						0.00				0.00	hoop	13	2.42	12	10		290.4					
						0.00				0.00	tie	10	0.7	6	10	42.0						
	C1	0.70	0.65	1.30	10	5.92	2.70	1.30	10	35.10	M,B	32	4.08	18	10							734.4
											hoop	13	2.42	18	10		435.6					
						0.00				0.00	tie	10	0.7	9	10	63.0						
	C2	0.75	0.65	0.80	7	2.73	2.80	0.80	7	15.68	M,B	32	3.58	18	7							451.1
											hoop	13	2.3	12	7		193.2					
											tie	10	0.7	8	7	39.2						
	C(-1FL)	SUM				12.29				72.38						144.20	919.20	0.00	0.00	0.00	0.00	1829.89
	C(1F)					0.00				0.00												
	C1	0.70	0.65	5.20	20	47.32	2.70	5.20	20	280.80	M,B	32	5.2	18	20							1872.0
						0.00				0.00	hoop	13	2.42	70	20		3388.0					
											tie	10	0.7	18	20	252.0						
	C2	0.75	0.65	5.20	7	17.75	2.80	5.20	7	101.92	M,B	32	5.2	18	7							655.2
											hoop	13	2.3	70	7		1127.0					
						0.00				0.00	tie	10	0.7	24	7	117.6						
	C(1F)	SUM				65.07				352.72						369.60	4515.00	0.00	0.00	0.00	0.00	2527.20
	C(2F)					0.00				0.00												
	C1	0.70	0.65	3.80	14	24.21	2.70	3.80	14	143.64	M,B	32	3.8	18	14							957.6
						0.00				0.00	hoop	13	2.42	50	14		1694.0					
						0.00				0.00	tie	10	0.7	15	14	147.0						
	C2	0.75	0.65	3.80	7	12.97	2.80	3.80	7	74.48	M,B	32	3.8	18	7							478.8
											hoop	13	2.3	50	7		805.0					
						0.00				0.00	tie	10	0.7	20	7	98.0						
	C(2F)	SUM				37.17				218.12						245.00	2499.00	0.00	0.00	0.00	0.00	1436.40
	C(3F)					0.00				0.00												
	C1	0.70	0.65	3.80	14	24.21	2.70	3.80	14	143.64	M,B	32	2.3	18	14							579.6
						0.00				0.00	hoop	13	2.42	50	14		1694.0					
						0.00				0.00	tie	10	0.7	15	14	147.0						
	C2	0.75	0.65	3.80	7	12.97	2.80	3.80	7	74.48	M,B	32	3.8	18	7							478.8
											hoop	13	2.3	50	7		805.0					
						0.00				0.00	tie	10	0.7	20	7	98.0						
	C(3F)	SUM				37.17				218.12						245.00	2499.00	0.00	0.00	0.00	0.00	1436.40
						0.00				0.00												

CALCULATION		
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	INITIAL	DATE
PREPARED BY	Y_F	Jul.02
CHECKED BY	CHA	Aug'02

		CONCRETE					FORMING				RE-BAR (m)										
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	C(4F)					0.00				0.00												
	C2	0.75	0.65	3.80	7	12.97	2.80	3.80	7	74.48	M,B	32	3.8	18	7							478.8
						0.00				0.00	hoop	13	2.3	50	7		805.0					
											tie	10	0.7	20	7	98.0						
						0.00				0.00												
	C(4F)	SUM				12.97				74.48						98.00	805.00	0.00	0.00	0.00	0.00	478.80
						0.00				0.00												
*	C(5F)					0.00				0.00												
	C2	0.75	0.65	3.80	7	12.97	2.80	3.80	7	74.48	M,B	32	3.8	18	7							478.8
											hoop	13	2.3	50	7		805.0					
						0.00				0.00	tie	10	0.7	15	7	73.5						
	C(5F)	SUM				12.97				74.48						73.50	805.00	0.00	0.00	0.00	0.00	478.80
						0.00				0.00												
*	C(6F)					0.00				0.00												
	C2	0.75	0.65	3.80	7	12.97	2.80	3.80	7	74.48	M,B	32	2.3	18	7							289.8
											hoop	13	2.3	50	7		805.0					
						0.00				0.00	tie	10	0.7	15	7	73.5						
	C(6F)	SUM				12.97				74.48						73.50	805.00	0.00	0.00	0.00	0.00	289.80
	C(+1FL)	SUM				178.31				1042.40						1104.60	11928.00	0.00	0.00	0.00	0.00	6269.40
*	2C																					
A,B,C 1-2,7-8	2B2	0.35	0.65	5.35	6	7.30	1.65	5.35	6	52.97	T,B	32	8.69	3	6							120.4
											T,B	32	2.91	3	6							52.4
											T,B	32	2.23	3	6							40.1
											B,B	32	8.69	3	6							120.4
											B,B	32	2.91	2	6							34.9
											B,B	32	2.23	2	6							26.8
											STR	13	2	28	6		336.0					
											W,B	16	6.15	2	6			73.8				
											Tie	10	0.35	7	6	14.7						
2-3 4-5 6-7	2B2	0.35	0.65	5.35	9	10.95	1.65	5.35	9	79.45	T,B	32	7.28	3	9							196.6
											T,B	32	2.23	6	9							120.4
											B,B	32	7.28	3	9							196.6
											B,B	32	2.23	4	9							80.3
											STR	13	2	28	9		504.0					
											W,B	16	6.15	2	9			110.7				
											Tie	10	0.35	7	9	22.1						
3-4 5-6	2B2	0.35	0.65	5.35	6	7.30	1.65	5.35	6	52.97	T,B	32	8	3	6							108.0
											T,B	32	2.23	6	6							80.3
											B,B	32	8	3	6							108.0
											B,B	32	2.23	4	6							53.5
											STR	13	2	28	6		336.0					
											W,B	16	6.15	2	6			73.8				
											Tie	10	0.35	7	6	14.7						
D	2B6	0.35	0.65	5.35	2	2.43	1.65	5.35	2	17.66	T,B	32	13.28	3	1							39.8
											B,B	32	13.28	3	1							39.8
											B,B	32	2.66	2	1							5.4
											STR	13	2	28	2		112.0					
											W,B	16	6.15	2	2			24.6				
											Tie	10	0.35	7	2	4.9						

CALCULATION

Detailed Design on Port Reactivation Project in La Union Province

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	INITIAL	DATE
COMPUTED BY	L.F.	Jul.02
CHECKED BY	[illegible]	Aug.02

	CONCRETE						FORMING				RE-BAR (m)												
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
C -4 -6	2B8	0.35	0.65	1.65	2	0.75	1.65	1.65	2	5.45	T.B B.B STR W.B Tie	32 32 13 16 10	2.58 2.58 2 2.1 0.35	3 3 10 2 3	2 2 2 2 2	 2.1	 40.0 	 8.4 	 	 	 	15.5 15.5
1	2B2	0.35	0.65	7.30	2	3.32	1.65	7.30	2	24.09	T.B T.B T.B B.B B.B B.B STR W.B Tie	32 32 32 32 32 32 13 16 10	18.6 2.91 4.5 18.6 2.91 4.5 2 8.1 0.35	3 6 3 3 4 2 76 2 9	1 1 1 1 1 1 1 2 2	 6.3	 152.0 	 32.4 	 	 	 	55.8 17.5 13.5 55.8 11.6 9.0
2,3,7 ,8	2B1	0.40	0.75	7.30	8	17.52	1.90	7.30	8	110.96	T.B T.B T.B B.B B.B B.B STR W.B Tie	32 32 32 32 25 25 13 16 10	18.6 2.91 4.5 18.6 2.41 3.9 2.3 8.1 0.4	4 4 2 4 4 2 76 2 9	4 4 4 4 4 4 4 8 8	 699.2 28.8	 129.6 	 	 	 38.6 31.2 	 297.6 	297.6 46.8 36.0 297.6
4,5,6	2B1A	0.40	0.90	7.30	6	15.77	2.20	7.30	6	96.36	T.B T.B T.B B.B B.B B.B STR W.B Tie	32 32 32 32 32 32 13 16 10	18.6 2.91 4.5 18.6 2.91 4.5 2.6 8.1 0.4	4 4 4 4 3 2 36 2 9	3 6 3 3 6 3 6 6 6	 592.8 21.6	 97.2 	 	 	 	 223.2 	223.2 69.8 54.0 223.2 52.4 27.0
4,5,6 C-D	2B2A	0.35	0.65	7.30	3	4.98	1.65	7.30	3	36.14	T.B T.B T.B B.B STR W.B Tie	32 32 32 32 13 16 10	8.66 2.91 2.25 9.36 2 8.1 0.35	3 2 2 4 36 2 9	3 3 3 3 3 3 3	 9.5	 228.0 	 48.6 	 	 	 	77.9 17.5 13.5 112.3
4,6 -D		0.35	0.65	1.95	2	0.89	1.65	1.95	2	6.44	T.B B.B STR W.B Tie	32 32 13 16 10	2.9 2.9 2 2.35 0.35	5 4 11 2 3	2 2 2 2 2	 2.1	 44.0 	 9.4 	 	 	 	29.0 23.2
5 -D		0.35	0.65	4.25	1	0.97	1.65	4.25	1	7.01	T.B B.B STR W.B Tie	32 32 13 16 10	6.48 6.48 2 4.65 0.35	5 4 23 2 5	1 1 1 1 1	 1.8	 46.0 	 9.3 	 	 	 	32.4 25.9
	2G	SUM				72.19				489.47						128.45	3090.00	617.80	0.00	0.00	69.76	3278.98

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 17/8
	INITIAL	DATE
PREPARED BY	Y. F	Jul-02
CHECKED BY	[illegible]	Aug'02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	3G																					
A,B,C	3B2	0.35	0.85	5.35	6	7.30	1.65	5.35	6	52.97	T,B	32	6.69	3	6							120.4
2-3,7-8											T,B	32	2.91	3	6							52.4
											T,B	32	2.23	3	6							40.1
											B,B	32	6.69	3	6							120.4
											B,B	32	2.91	2	6							34.9
											B,B	32	2.23	2	6							26.8
											STR	13	2	28	6		336.0					
											W,B	16	6.15	2	6			73.8				
											Tie	10	0.35	7	6	14.7						
3-4	3B2	0.35	0.85	5.35	9	10.95	1.65	5.35	9	79.45	T,B	32	7.28	3	9							196.6
5-6											T,B	32	2.23	6	9							120.4
6-7											B,B	32	7.28	3	9							196.6
											B,B	32	2.23	4	9							80.3
											STR	13	2	28	9		504.0					
											W,B	16	6.15	2	9			110.7				
											Tie	10	0.35	7	9	22.1						
4-5	3B2	0.35	0.85	5.35	3	3.65	1.65	5.35	3	26.48	T,B	32	6	3	3							54.0
											T,B	32	2.23	6	3							40.1
											B,B	32	6	3	3							54.0
											B,B	32	2.23	4	3							26.8
											STR	13	2	28	3		168.0					
											W,B	16	6.15	2	3			36.9				
											Tie	10	0.35	7	3	7.4						
2,3,7,8	3B1	0.40	0.75	7.30	8	17.52	1.90	7.30	8	110.96	T,B	32	18.6	4	4							297.6
											T,B	32	2.91	4	4							46.6
											T,B	32	4.5	2	4							36.0
											B,B	32	18.6	4	4							297.6
											B,B	25	2.41	4	4						38.6	
											B,B	25	3.9	2	4						31.2	
											STR	13	2.3	76	4		699.2					
											W,B	16	8.1	2	8			129.6				
											Tie	10	0.4	9	8	28.8						
4,5,6	3B1A	0.40	0.90	7.30	6	15.77	2.20	7.30	6	96.36	T,B	32	18.6	4	3							223.2
											T,B	32	2.91	4	6							69.8
											T,B	32	4.5	4	3							54.0
											B,B	32	18.6	4	3							223.2
											B,B	32	2.91	3	6							52.4
											B,B	32	4.5	2	3							27.0
											STR	13	2.6	38	6		592.8					
											W,B	16	8.1	2	6			97.2				
											Tie	10	0.4	9	6	21.6						
	3G	SUM				55.20				366.22						94.50	2300.00	448.20	0.00	0.00	69.76	2491.14
*	4G																					
A,B,C	4B2	0.35	0.85	5.35	6	7.30	1.65	5.35	6	52.97	T,B	32	6.69	3	6							120.4
2-3,7-8											T,B	32	2.91	3	6							52.4
											T,B	32	2.23	3	6							40.1
											B,B	32	6.69	3	6							120.4
											B,C	32	2.91	2	6							34.9
											B,B	32	2.23	2	6							26.8
											STR	13	2	28	6		336.0					
											W,B	16	6.15	2	6			73.8				
											Tie	10	0.35	7	6	14.7						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 019
	INITIAL	DATE
PREPARED BY	Y.F	Jul.02
CHECKED BY	[illegible]	Aug'02

	CONCRETE						FORMING				RE-BAR (m)												
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
3-4	4B2	0.35	0.65	5.35	9	10.95	1.65	5.35	9	79.45	T.B	32	7.26	3	9							195.6
5-6											T.B	32	2.23	6	9							120.4
6-7											B.B	32	7.26	3	9							195.6
											B.B	32	2.23	4	9							80.3
											STR	13	2	28	9		504.0					
											W.B	16	6.15	2	9			110.7				
											Tie	10	0.35	7	9	22.1						
4-5	4B2	0.35	0.65	5.35	3	3.65	1.65	5.35	3	26.48	T.B	32	6	3	3							54.0
											T.B	32	2.23	6	3							40.1
											B.B	32	6	3	3							54.0
											B.B	32	2.23	4	3							26.8
											STR	13	2	28	3		168.0					
											W.B	16	6.15	2	3			36.9				
											Tie	10	0.35	7	3	7.4						
4,5,6	4B1A	0.40	0.90	7.30	6	15.77	2.20	7.30	6	96.36	T.B	32	18.6	4	3							223.2
											T.B	32	2.91	4	6							69.8
											T.B	32	4.5	4	3							54.0
											B.B	32	18.6	4	3							223.2
											B.B	32	2.91	3	6							52.4
											B.B	32	4.5	2	3							27.0
											STR	13	2.8	38	3		592.8					
											W.B	16	8.1	2	6			97.2				
											Tie	10	0.4	9	6	21.6						
A-B	4B7	0.35	0.60	7.58	4	6.37	1.55	7.58	4	47.00	T.B	32	8.94	2	4							71.5
2,3,7,											T.B	32	2.91	1	4							11.6
8											T.B	25	2.41	2	4						19.3	
											T.B	32	2.25	3	4							27.0
											B.B	25	8.74	5	4						174.8	
											B.B	25	6.04	1	4						24.2	
											STR	13	1.9	39	4		296.4					
											W.B	16	8.38	2	4			67.0				
											Tie	10	0.35	9	4	12.6						
B-C	4B7	0.35	0.60	7.03	4	5.91	1.55	7.03	4	43.59	T.B	32	9.67	2	4							77.4
2,3,7,											T.B	32	2.91	1	4							11.6
8											T.B	25	2.41	2	4						19.3	
											T.B	32	2.25	3	4							27.0
											B.B	25	8.67	5	4						193.4	
											B.B	25	5.63	1	4						22.5	
											STR	13	1.9	37	4		281.2					
											W.B	16	7.83	2	4			62.6				
											Tie	10	0.35	9	4	12.6						
	4G	SUM				49.95				345.84						90.90	2178.40	448.28	0.00	0.00	453.44	2039.54
	5G																					
	5B1	0.40	0.75	7.53	2	4.52	1.90	7.53	2	28.61	TB	32	9.55	4	2							76.4
											TB	32	2.91	6	2							34.9
											BB	32	9.55	4	2							76.4
											BB	32	2.91	4	2							23.3
											STR	13	2.3	39	2		179.4					
											W.B	16	8.33	2	2			33.3				
											Tie	10	0.4	9	2	7.2						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 020
	INITIAL	DATE
PREPARED BY	T.E	Jul 02
CHECKED BY	[illegible]	Aug '02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	SB1	0.40	0.75	6.93	1	2.08	1.90	6.93	1	13.17	TB	32	8.95	4	1							35.8
											TB	32	2.91	6	1							17.5
											BB	32	8.95	4	1							35.8
											BB	32	2.91	4	1							11.6
											STR	13	2.3	36	1		82.8					
											W.B	16	7.73	2	1			15.5				
											Tie	10	0.4	8	1	3.2						
	SB2	0.35	0.65	5.35	4	4.87	1.65	5.35	4	35.31	TB	32	7.37	4	4							117.9
											TB	32	2.91	4	4							46.6
											BB	32	7.37	4	4							117.9
											BB	32	2.91	4	4							46.6
											STR	13	2	28	4		224.0					
											W.B	16	6.15	2	4			49.2				
											Tie	10	0.35	7	4	9.8						
	SB7	0.35	0.60	7.53	1	1.58	1.55	7.53	1	11.67	TB	32	9.55	4	1							38.2
											TB	32	2.91	2	1							5.8
											BB	32	9.55	4	1							38.2
											STR	13	1.9	39	1		74.1					
											W.B	16	8.33	2	1			16.7				
											Tie	10	0.35	9	1	3.2						
	SB7	0.35	0.60	23.00	1	4.83	1.55	23.00	1	35.65	TB	32	26.3	4	1							105.2
											TB	32	2.91	4	1							11.6
											BB	32	26.3	4	1							105.2
											STR	13	1.9	116	1		220.4					
											W.B	16	23.8	2	1			47.6				
											Tie	10	0.35	24	1	8.4						
	SG	SUM				17.66	(R面積)			88.76						31.75	780.70	162.24	0.00	0.00	0.00	944.92
	SG																					
	SB1	0.40	0.75	7.53	2	4.52	1.90	7.53	2	28.61	TB	32	9.55	4	2							76.4
											TB	32	2.91	6	2							34.9
											BB	32	9.55	4	2							76.4
											BB	32	2.91	4	2							23.3
											STR	13	2.3	39	2		179.4					
											W.B	16	8.33	2	2			33.3				
											Tie	10	0.4	9	2	7.2						
	SB1	0.40	0.75	6.93	1	2.08	1.90	6.93	1	13.17	TB	32	8.95	4	1							35.8
											TB	32	2.91	6	1							17.5
											BB	32	8.95	4	1							35.8
											BB	32	2.91	4	1							11.6
											STR	13	2.3	36	1		82.8					
											W.B	16	7.73	2	1			15.5				
											Tie	10	0.4	8	1	3.2						
	SB2	0.35	0.65	5.35	4	4.87	1.65	5.35	4	35.31	TB	32	7.37	4	4							117.9
											TB	32	2.91	4	4							46.6
											BB	32	7.37	4	4							117.9
											BB	32	2.91	4	4							46.6
											STR	13	2	28	4		224.0					
											W.B	16	6.15	2	4			49.2				
											Tie	10	0.35	7	4	9.8						
	SB7	0.35	0.60	7.53	1	1.58	1.55	7.53	1	11.67	TB	32	9.55	4	1							38.2
											TB	32	2.91	2	1							5.8
											BB	32	9.55	4	1							38.2
											STR	13	1.9	39	1		74.1					
											W.B	16	8.33	2	1			16.7				
											Tie	10	0.35	9	1	3.2						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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CALC INDEX No.:		PAGE 021
	INITIAL	DATE
PREPARED BY	T.F	Jul.07
CHECKED BY	AH	Aug'07

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	GB7	0.35	0.60	23.00	1	4.83	1.55	23.00	1	35.65	TB	32	26.3	4	1							105.2
											TB	32	2.91	4	1							11.6
											BB	32	26.3	4	1							105.2
											STR	13	1.9	116	1		220.4					
											W.B	16	23.8	2	1			47.6				
											Tie	10	0.35	24	1	8.4						
								(R面積)														
	GG	SUM				17.68		35.65		88.76						31.75	780.70	162.24	0.00	0.00	0.00	944.92
	RG																					
	RB2A	0.35	0.65	7.53	3	5.14	2.00	7.53	3	45.18	TB	32	9.55	4	3							114.6
											TB	32	2.91	2	3							17.5
											BB	32	9.55	4	3							114.6
											STR	13	2	39	3		234.0					
											W.B	16	8.33	2	3			50.0				
											Tie	10	0.35	8	3	9.5						
	RB2A	0.40	0.75	6.93	1	2.08	1.90	6.93	1	13.17	TB	32	8.95	4	1							35.8
											TB	32	2.91	2	1							5.8
											BB	32	8.95	4	1							35.8
											STR	13	2	36	1		72.0					
											W.B	16	7.73	2	1			15.5				
											Tie	10	0.35	8	1	2.8						
	RB2	0.35	0.65	5.35	4	4.87	1.65	5.35	4	35.31	TB	32	7.37	4	4							117.9
											TB	32	2.91	4	4							46.6
											BB	32	7.37	4	4							117.9
											BB	32	2.91	4	4							46.6
											STR	13	2	28	4		224.0					
											W.B	16	6.15	2	4			49.2				
											Tie	10	0.35	7	4	9.8						
	RB7A	0.35	0.60	23.00	1	4.83	1.55	23.00	1	35.65	TB	32	26.3	3	1							78.9
											TB	32	2.91	2	1							5.8
											BB	32	26.3	3	1							78.9
											STR	13	1.9	116	1		220.4					
											W.B	16	23.8	2	1			47.6				
											Tie	10	0.35	24	1	8.4						
	RG	SUM				16.92		(R面積) 35.65		93.66						30.45	750.40	162.24	0.00	0.00	0.00	816.66
	2B																					
A-C 1-B	2B3	0.30	0.55	5.60	4	3.70	1.40	5.60	4	31.36	TB	25	6.61	3	4						79.3	
											TB	25	1.93	1	4						7.7	
											BB	25	6.61	3	4						79.3	
											STR	13	1.7	29	4		197.2					
											W.B	16	6.4	2	4			51.2				
											Tie	10	0.3	7	4	8.4						
	2B3	0.30	0.55	5.60	7	6.47	1.40	5.60	7	54.88	TB	25	6	3	7						126.0	
											TB	25	1.93	1	7						13.5	
											BB	25	6	3	7						126.0	
											STR	13	1.7	29	7		345.1					
											W.B	16	6.4	2	7			89.6				
											Tie	10	0.3	7	7	14.7						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 022
	INITIAL	DATE
PREPARED BY	Y-F	Jul.07
CHECKED BY	[illegible]	Aug.'07

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
A-B	2B3	0.30	0.55	5.60	4	3.70	1.40	5.60	4	31.36	TB	25	7.22	3	4						86.6	
5-8											TB	25	2.41	2	4						19.3	
											BB	25	7.22	3	4						86.6	
											STR	13	1.7	29	4		197.2					
											W.B	16	6.4	2	4			51.2				
											Tie	10	0.3	7	4	8.4						
	2B3	0.30	0.55	5.85	2	1.93	1.40	5.85	2	10.36	TB	25	7.47	3	2						44.8	
											TB	25	2.41	2	2						9.6	
											BB	25	7.47	3	2						44.8	
											STR	13	1.7	31	2		105.4					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
	2B3	0.30	0.55	2.73	2	0.90	1.40	2.73	2	7.64	TB	25	4.35	3	2						26.1	
											TB	25	2.41	2	2						9.6	
											BB	25	4.35	3	2						26.1	
											STR	13	1.7	15	2		51.0					
											W.B	16	3.5	2	2			14.0				
											Tie	10	0.3	4	2	2.4						
A-C	2B5	0.25	0.40	3.66	4	1.47	1.05	3.66	4	15.46	TB	25	4.64	2	4						37.1	
1-2											TB	25	2.41	1	2						4.8	
											TB	25	1.78	1	6						10.7	
											BB	25	4.64	2	4						37.1	
											BB	25	1.84	1	4						7.4	
											STR	10	1.3	26	4	135.2						
											W.B	13	4.33	2	4		34.6					
											Tie	10	0.25	5	4	5.0						
A-B	2B5	0.25	0.40	5.65	3	1.70	1.05	5.65	3	17.80	TB	25	7.27	2	3						43.6	
2-7											TB	25	2.41	2	3						14.5	
											BB	25	7.27	2	3						43.6	
											BB	25	2.83	1	3						8.5	
											STR	10	1.3	39	3	152.1						
											W.B	13	6.3	2	3		37.8					
											Tie	10	0.25	7	3	5.3						
	2B5	0.25	0.40	5.60	3	1.68	1.05	5.60	3	17.64	TB	25	6.61	2	2						26.4	
											TB	25	6	2	1						12.0	
											TB	25	2.41	1	6						14.5	
											BB	25	6.61	2	2						26.4	
											BB	25	6	2	1						12.0	
											BB	25	2.8	1	3						8.4	
											STR	10	1.3	39	3	152.1						
											W.B	13	6.25	2	3		37.5					
											Tie	10	0.25	7	3	5.3						
A-B	2B5	0.25	0.40	2.90	1	0.29	1.05	2.90	1	3.05	TB	25	4.52	2	1						9.0	
6-7											TB	25	2.41	1	1						2.4	
											BB	25	4.52	2	1						9.0	
											BB	25	1.45	1	1						1.5	
											STR	10	1.3	21	1	27.3						
											W.B	13	3.55	2	1		7.1					
											Tie	10	0.25	5	1	1.3						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:	PAGE 023	
	INITIAL	DATE
PREPARED BY	Y.F	Jul.08
CHECKED BY	[illegible]	Aug.08

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	2B5	0.25	0.40	2.73	2	0.55	1.05	2.73	2	5.73	TB	25	4.35	2	2						17.4	
											TB	25	2.41	1	2						4.8	
											BB	25	4.35	2	2						17.4	
											BB	25	1.37	1	2						2.7	
											STR	10	1.3	20	2	52.0						
											W.B	13	3.3	2	2		13.2					
											Tie	10	0.25	4	2	2.0						
	2B5	0.25	0.40	2.58	1	0.26	1.05	2.58	1	2.71	TB	25	4.2	2	1						8.4	
											TB	25	2.41	1	1						2.4	
											BB	25	4.2	2	1						8.4	
											BB	25	1.29	1	1						1.3	
											STR	10	1.3	19	1	24.7						
											W.B	13	3.15	2	1		6.3					
											Tie	10	0.25	4	1	1.0						
	2B5	0.25	0.40	2.35	1	0.24	1.05	2.35	1	2.47	TB	25	3.97	2	1						7.9	
											TB	25	2.41	1	1						2.4	
											BB	25	3.97	2	1						7.9	
											BB	25	1.18	1	1						1.2	
											STR	10	1.3	17	1	22.1						
											W.B	13	3	2	1		6.0					
											Tie	10	0.25	4	1	1.0						
	2B5	0.25	0.40	1.58	3	0.47	1.05	1.58	3	4.98	TB	25	3.2	2	3						19.2	
											TB	25	2.41	1	3						7.2	
											BB	25	3.2	2	3						19.2	
											BB	25	0.79	1	3						2.4	
											STR	10	1.3	12	3	46.8						
											W.B	13	2.23	2	3		13.4					
											Tie	10	0.25	4	3	3.0						
4-6	2B4	0.30	0.60	3.68	5	3.31	1.50	3.68	5	27.60	TB	25	4.64	3	3						41.8	
											TB	25	5	3	2						30.0	
											TB	25	2.41	1	4						9.6	
											TB	25	3.5	1	2						7.0	
											TB	25	1.75	1	2						3.5	
											BB	25	9.62	3	2						57.7	
											STR	12	1.8	20	4		144.0					
											W.B	16	4.48	2	4			35.8				
											Tie	10	0.3	5	4	6.0						
C-D	2B4	0.30	0.60	2.68	4	1.93	1.50	2.68	4	16.08	TB	25	3.64	3	1						10.9	
											TB	25	3	3	2						18.0	
											TB	25	4	3	1						12.0	
											TB	25	2.41	1	1						2.4	
											TB	25	1.64	1	3						4.9	
											TB	25	0.85	1	1							
											BB	25	13.64	3	1						40.9	
											STR	13	1.8	15	4		108.0					
											W.B	16	3.48	2	4			27.8				
											Tie	10	0.3	4	4	4.8						
-D	2B4	0.30	0.60	4.00	2	1.44	1.50	4.00	2	12.00	TB	25	4.7	4	2						37.6	
											TB	25	5.35	1	2						10.7	
											BB	25	4.73	3	2						28.4	
											STR	13	1.8	21	2		75.6					
											W.B	16	4.4	2	2			17.6				
											Tie	10	0.3	5	2	3.0						

CALCULATION		
Detailed Design on Port Reactivation Project In La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE a24
	INITIAL	DATE
PREPARED BY	Y.F	Jul. 02
CHECKED BY	CM	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
0-4	2B4	0.30	0.80	4.70	1	0.85	1.50	4.70	1	7.05	TB	25	5.43	3	1						16.3	
											TB	25	2.41	1	2						4.8	
											BB	25	5.43	3	1						16.3	
											STR	13	1.8	25	1		45.0					
											W.B	16	5.1	2	1			10.2				
											Tie	10	0.3	6	1	1.8						
-D	2B3A	0.30	0.55	7.60	1	1.25	1.40	7.60	1	10.64	TB	25	34.87	3	1						104.6	
		0.30	0.55	4.50	1	0.74	1.40	4.50	1	6.30	BB	25	34.87	3	1						104.6	
		0.30	0.55	2.70	4	1.78	1.40	2.70	4	15.12	STR	13	1.8	146	1		262.8					
		0.30	0.55	3.00	2	0.99	1.40	3.00	2	8.40	W.B	16	33.65	2	1			67.3				
											Tie	10	0.3	30	1	9.0						
-D	2B5A	0.35	0.65	3.80	1	0.86	1.65	3.80	1	6.27	TB	25	5.43	3	1						16.3	
											TB	25	2.41	2	1						4.8	
											BB	25	5.43	3	1						16.3	
											STR	13	1.8	20	1		36.0					
											W.B	16	4.6	2	1			9.2				
											Tie	10	0.3	5	1	1.5						
	CB1	0.30	0.50	0.85	11	1.40	1.30	0.85	11	12.18	TB	25	2.11	3	11						69.6	
											BB	25	2.11	3	11						69.6	
											STR	13	1.6	6	11		105.6					
	CB1	0.30	0.50	0.98	3	0.44	1.30	0.98	3	3.82	TB	25	2.24	3	3						20.2	
											BB	25	2.24	3	3						20.2	
											STR	10	1.6	6	3	28.8						
	CB2	0.40	0.40	2.20	1	0.35	1.20	2.20	1	2.64	TB	25	3.36	3	1						10.1	
											BB	25	3.36	3	1						10.1	
											STR	13	1.6	6	1		9.6					
	2B	SUM				38.70		(Rounded) 23.52		336.89						729.05	1633.42	399.58	0.00	0.00	2044.10	0.00
*	3B																					
A-C 2-6	3B3	0.30	0.55	5.60	6	5.54	1.40	5.60	6	47.04	TB	25	6.61	3	6						119.0	
											TB	25	1.93	1	6						11.6	
											BB	25	6.61	3	6						119.0	
											STR	13	1.7	29	6		295.8					
											W.B	16	6.4	2	6			76.8				
											Tie	10	0.3	7	6	12.6						
	3B3	0.30	0.55	5.60	2	1.85	1.40	5.60	2	15.68	TB	25	6	3	2						36.0	
											TB	25	1.93	1	2						3.9	
											BB	25	6	3	2						36.0	
											STR	13	1.7	29	2		98.6					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
A-B 5-8	3B3	0.30	0.55	5.60	5	4.62	1.40	5.60	5	39.20	TB	25	7.22	3	5						108.3	
											TB	25	2.41	2	5						24.1	
											BB	25	7.22	3	5						108.3	
											STR	13	1.7	29	5		246.5					
											W.B	16	6.4	2	5			64.0				
											Tie	10	0.3	7	5	10.5						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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CALC INDEX No.:		PAGE 025
	INITIAL	DATE
PREPARED BY	Y-E	Jul.0
CHECKED BY	[illegible]	Aug.03

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	3B3	0.30	0.55	5.85	2	1.93	1.40	5.85	2	16.38	TB	25	7.47	3	2						44.8	
											TB	25	2.41	2	2						9.6	
											BB	25	7.47	3	2						44.8	
											STR	13	1.7	31	2		105.4					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
	3B3	0.30	0.55	2.73	2	0.90	1.40	2.73	2	7.64	TB	25	4.35	3	2						26.1	
											TB	25	2.41	2	2						9.6	
											BB	25	4.35	3	2						26.1	
											STR	13	1.7	15	2		51.0					
											W.B	16	3.5	2	2			14.0				
											Tie	10	0.3	4	2	2.4						
A-B 2-7	3B5	0.25	0.40	5.65	1	0.57	1.05	5.65	1	5.93	TB	25	7.27	2	1						14.5	
											TB	25	2.41	2	1						4.8	
											BB	25	7.27	2	1						14.5	
											BB	25	2.85	1	1						2.8	
											STR	10	1.3	39	1	50.7						
											W.B	13	6.3	2	1		12.6					
											Tie	10	0.25	7	1	1.8						
	3B5	0.25	0.40	5.60	3	1.68	1.05	5.60	3	17.64	TB	25	6.61	2	2						26.4	
											TB	25	7	2	1						14.0	
											TB	25	2.41	1	6						14.5	
											BB	25	6.61	2	2						26.4	
											BB	25	7	2	1						14.0	
											BB	25	2.8	1	3						8.4	
											STR	10	1.3	39	3	152.1						
											W.B	13	6.25	2	3		37.5					
											Tie	10	0.25	7	3	5.3						
A-B 6-8	3B5	0.25	0.40	2.90	1	0.29	1.05	2.90	1	3.05	TB	25	4.52	2	1						9.0	
											TB	25	2.41	1	1						2.4	
											BB	25	4.52	2	1						9.0	
											STR	10	1.3	21	1	27.3						
											W.B	13	3.55	2	1		7.1					
											Tie	10	0.25	5	1	1.3						
	3B5	0.25	0.40	2.73	2	0.55	1.05	2.73	2	5.73	TB	25	4.35	2	2						17.4	
											TB	25	2.41	1	2						4.8	
											BB	25	4.35	2	2						17.4	
											STR	10	1.3	20	2	52.0						
											W.B	13	3.3	2	2		13.2					
											Tie	10	0.25	4	2	2.0						
	3B5	0.25	0.40	2.58	1	0.26	1.05	2.58	1	2.71	TB	25	4.2	2	1						8.4	
											TB	25	2.41	1	1						2.4	
											BB	25	4.2	2	1						8.4	
											STR	10	1.3	19	1	24.7						
											W.B	13	3.15	2	1		6.3					
											Tie	10	0.25	4	1	1.0						
	3B5	0.25	0.40	2.35	1	0.24	1.05	2.35	1	2.47	TB	25	3.97	2	1						7.9	
											TB	25	2.41	1	1						2.4	
											BB	25	3.97	2	1						7.9	
											STR	10	1.3	17	1	22.1						
											W.B	13	3	2	1		6.0					
											Tie	10	0.25	4	1	1.0						

CALCULATION		
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CALC INDEX No.:		PAGE 026
	INITIAL	DATE
PREPARED BY	Y.F	Jul.02
CHECKED BY		Aug.02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	3B5	0.25	0.40	1.56	3	0.47	1.05	1.56	3	4.98	TB	25	3.2	2	3						19.2	
											TB	25	2.41	1	3						7.2	
											BB	25	3.2	2	3						19.2	
											STR	10	1.1	12	3	46.8						
											W.B	13	2.23	2	3		13.4					
											Tie	10	0.25	4	3	3.0						
	CB1	0.30	0.50	0.85	14	1.79	1.30	0.85	14	15.47	TB	25	2.11	3	14						88.6	
											BB	25	2.11	3	14						88.6	
											STR	13	1.6	6	14		134.4					
	CB2	0.40	0.40	2.20	1	0.35	1.20	2.20	1	2.64	TB	25	3.36	3	1						10.1	
											BB	25	3.36	3	1						10.1	
											STR	13	1.6	6	1		9.6					
	3B	SUM				21.03				165.56						424.85	1037.38	206.00	0.00	0.00	1208.33	0.00
	4B																					
A-C	4B3	0.30	0.55	5.60	9	8.32	1.40	5.60	9	70.56	TB	25	6.61	3	9						178.5	
2-6											TB	25	1.93	1	9						17.4	
											BB	25	6.61	3	9						178.5	
											STR	13	1.7	29	9		443.7					
											W.B	16	6.4	2	9			115.2				
											Tie	10	0.3	7	9	18.9						
A-B	4B3	0.30	0.55	5.60	2	1.85	1.40	5.60	2	15.68	TB	25	7.22	3	2						43.3	
4-5											TB	25	2.41	2	2						9.6	
5-6											BB	25	7.22	3	2						43.3	
											STR	13	1.7	29	2		98.6					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
A-B	4B3	0.30	0.55	5.85	1	0.97	1.40	5.85	1	6.10	TB	25	7.47	3	1						22.4	
5-6											TB	25	2.41	2	1						4.8	
											BB	25	7.47	3	1						22.4	
											STR	13	1.7	31	1		52.7					
											W.B	16	6.4	2	1			12.8				
											Tie	10	0.3	7	1	2.1						
	4B3	0.30	0.55	2.73	1	0.45	1.40	2.73	1	3.82	TB	25	4.35	3	1						13.1	
											TB	25	2.41	2	1						4.8	
											BB	25	4.35	3	1						13.1	
											STR	13	1.7	15	1		25.5					
											W.B	16	3.5	2	1			7.0				
											Tie	10	0.3	4	1	1.2						
B-C	4B7	0.35	0.60	5.60	1	1.18	1.55	5.60	1	8.68	T.B	32	6.81	2	1							13.6
4-5											T.B	32	2.91	1	1							2.9
											T.B	25	2.41	2	1						4.8	
											T.B	32	2.1	3	1							6.3
											B.B	25	6.81	5	1						34.1	
											B.B	25	4.4	1	1						4.4	
											STR	13	1.9	29	1		55.1					
											W.B	16	6.4	2	1			12.8				
											Tie	10	0.35	7	1	2.5						
B-C	4B7	0.35	0.60	5.60	1	1.18	1.55	5.60	1	8.68	T.B	32	8.09	2	1							16.2
											T.B	32	2.91	1	1							2.9
											T.B	25	2.41	2	1						4.8	
											T.B	32	2.1	3	1							6.3
											B.B	25	8.09	5	1						40.5	
											B.B	25	4.4	1	1						4.4	
											STR	13	1.9	29	1		55.1					
											W.B	16	6.4	2	1			12.8				
											Tie	10	0.35	7	1	2.5						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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CALC INDEX No.:		PAGE 027
	INITIAL	DATE
PREPARED BY	Y-F	Jul. 02
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
A-B	4B5	0.25	0.40	2.90	1	0.29	1.05	2.90	1	3.05	TB	25	4.52	2	1						9.0	
5-6											TB	25	2.41	2	1						4.8	
											BB	25	4.52	2	1						9.0	
											STR	10	1.3	16	1	20.8						
											W.B	13	3.7	2	1		7.4					
											Tie	10	0.25	4	1	1.0						
A-B	4B5	0.25	0.40	2.48	2	0.50	1.05	2.48	2	5.21	TB	25	6.22	2	1						12.4	
4-5											TB	25	2.41	2	2						9.6	
											BB	25	6.22	2	1						12.4	
											STR	10	1.3	14	2	36.4						
											W.B	13	3.28	2	2		13.1					
											Tie	10	0.25	4	2	2.0						
A-B	4B5	0.25	0.40	2.20	1	0.22	1.05	2.20	1	2.31	TB	25	3.16	2	1						6.3	
4-5											TB	25	2.41	2	1						4.8	
											BB	25	3.16	2	1						6.3	
											STR	10	1.3	12	1	15.6						
											W.B	13	3	2	1		6.0					
											Tie	10	0.25	4	1	1.0						
A-B	4B5	0.25	0.40	3.53	2	0.71	1.05	3.53	2	7.41	TB	25	5.15	2	2						20.6	
4-5											TB	25	2.41	2	2						9.6	
											BB	25	5.15	2	2						20.6	
											BB	25	1.77	1	2						3.5	
											STR	10	1.3	19	2	49.4						
											W.B	13	4.33	2	2		17.3					
											Tie	10	0.25	5	2	2.5						
-C	4B5	0.25	0.40	5.80	2	1.16	1.05	5.80	2	12.18	TB	25	6.81	2	2						27.2	
4-6											TB	25	2.41	2	2						9.6	
											BB	25	6.81	2	2						27.2	
											BB	25	1.77	1	2						3.5	
											STR	10	1.3	30	2	78.0						
											W.B	13	6.4	2	2		25.6					
											Tie	10	0.25	7	2	3.5						
	CB1	0.30	0.50	1.15	13	2.24	1.30	1.15	13	19.44	TB	25	2.41	3	13						94.0	
											BB	25	2.41	3	13						94.0	
											STR	10	1.6	7	13	145.6						
	CB2	0.40	0.40	2.20	1	0.35	1.20	2.20	1	2.64	TB	25	3.36	3	1						10.1	
											BB	25	3.36	3	1						10.1	
											STR	13	1.6	6	1		9.6					
	CB3	0.40	0.60	2.15	1	0.52	1.60	2.15	1	3.44	TB	25	3.51	4	1						14.0	
											BB	25	3.51	4	1						14.0	
											STR	13	2	12	1		24.0					
											W.B	10	2.55	2	1	5.1						
											Tie	10	0.4	4	1	1.6						
	4B	SUM				19.91				171.28						393.80	833.74	166.20	0.00	0.00	1077.23	48.22
	5B																					
	CB4	0.30	0.55	5.60	2	1.85	1.40	5.60	2	15.68	TB	25	7.22	3	2						43.3	
											TB	25	2.41	2	2						9.6	
											BB	25	7.22	3	2						43.3	
											STR	13	1.7	29	2		98.6					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
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CALC INDEX No.:		PAGE 28
	INITIAL	DATE
PREPARED BY	Y.F	Jul.02
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	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
	SB3	0.30	0.55	5.85	2	1.93	1.40	5.85	2	16.38	TB	25	7.47	3	2						44.8	
											TB	25	2.41	2	2						9.6	
											BB	25	7.47	3	2						44.8	
											STR	13	1.7	31	2		105.4					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
	SB3	0.30	0.55	2.73	1	0.45	1.40	2.73	1	3.82	TB	25	4.35	3	1						13.1	
											TB	25	2.41	2	1						4.8	
											BB	25	4.35	3	1						13.1	
											STR	13	1.7	15	1		25.5					
											W.B	16	3.53	2	1			7.1				
											Tie	10	0.3	4	1	1.2						
	SB5	0.25	0.40	43.95	1	4.40	1.05	43.95	1	46.15	TB	25	57.28	3	1						171.8	
											BB	25	57.28	3	1						171.8	
											STR	10	1.3	294	1	382.2						
											W.B	13	46.75	2	1		93.5					
											Tie	10	0.25	50	1	12.5						
	CB1																					
		0.30	0.50	1.48	2	0.44	1.30	1.48	2	3.85	TB	25	2.74	3	2						16.4	
											BB	25	2.74	3	2						16.4	
											STR	10	1.6	9	2	28.8						
	SB	SUM				9.07				85.88						433.10	323.00	58.26	0.00	0.00	603.04	0.00
	SB																					
	SB3	0.30	0.55	5.60	2	1.85	1.40	5.60	2	15.68	TB	25	7.22	3	2						43.3	
											TB	25	2.41	2	2						9.6	
											BB	25	7.22	3	2						43.3	
											STR	13	1.7	29	2		98.6					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
	SB3	0.30	0.55	5.85	2	1.93	1.40	5.85	2	16.38	TB	25	7.47	3	2						44.8	
											TB	25	2.41	2	2						9.6	
											BB	25	7.47	3	2						44.8	
											STR	13	1.7	31	2		105.4					
											W.B	16	6.4	2	2			25.6				
											Tie	10	0.3	7	2	4.2						
	SB3	0.30	0.55	2.73	1	0.45	1.40	2.73	1	3.82	TB	25	4.35	3	1						13.1	
											TB	25	2.41	2	1						4.8	
											BB	25	4.35	3	1						13.1	
											STR	13	1.7	15	1		25.5					
											W.B	16	3.53	2	1			7.1				
											Tie	10	0.3	4	1	1.2						
	SB5	0.25	0.40	43.95	1	4.40	1.05	43.95	1	46.15	TB	25	57.28	3	1						171.8	
											BB	25	57.28	2	1						114.6	
											STR	10	1.3	294	1	382.2						
											W.B	13	46.75	2	1		93.5					
											Tie	10	0.25	50	1	12.5						
	CB1																					
		0.30	0.50	1.48	2	0.44	1.30	1.48	2	3.85	TB	25	2.74	3	2						16.4	
											BB	25	2.74	3	2						16.4	
											STR	10	1.6	9	2	28.8						
	SB	SUM				9.07				85.88						433.10	323.00	58.26	0.00	0.00	545.76	0.00

CALCULATION		
Detailed Design on Port Reactivation Project in La Union Province		
CALC FILE No.:		
CALC INDEX No.:		PAGE 229
	INITIAL	DATE
PREPARED BY	Y.F	Jul. 02
CHECKED BY	[illegible]	Aug 02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	RB																					
	RBS	0.25	0.40	72.80	1	7.29	1.05	72.90	1	76.55	TB	25	90.34	3	1						271.0	
											BB	25	90.34	3	1						271.0	
											STR	10	1.3	487	1	633.1						
											W.B	13	83.9	2	1		167.8					
											Tie	10	0.25	82	1	20.5						
	RB	SUM				7.29				76.55						653.60	167.80	0.00	0.00	0.00	542.04	0.00
*	1F Slab																					
1-2	D11150	5.75	0.50	0.15	1	0.43				0.00	(Calculation of SLAB RE-Bar)											
		5.625	3.325	0.15	1	2.81				0.00												
		5.625	4.300	0.15	1	3.63				0.00	1. (Slab on Grade)		D10 ; 12m/m2*0.56kg/m=6.72kg/m2---44.80kg/m3									
		5.625	1.650	0.15	1	1.56				0.00												
		5.625	1.725	0.15	1	1.46				0.00	2. (S1)		D10 ; (6+5)*2*0.56kg/m=12.32kg/m2---82.13kg/m3									
		5.625	3.625	0.15	1	3.23				0.00												
						0.00				0.00	3. (S2)		D10 ; (6+5)*2*0.56kg/m=12.32kg/m2---102.67kg/m3									
2-3	D11150	5.75	0.50	0.15	1	0.43				0.00												
		5.375	3.325	0.15	1	2.68				0.00	4. (S4)		D13 ; (6+6)*0.995kg/m + D10 ; (6+6)*0.56kg/m									
		5.375	4.300	0.15	1	3.47				0.00			=18.66kg/m2---124.0kg/m3									
		5.375	1.650	0.15	1	1.49				0.00	5. (S5)		D10 ; (4+6)*2*0.56kg/m=11.20kg/m2---74.0kg/m3									
		5.375	1.725	0.15	1	1.39				0.00												
		5.375	3.825	0.15	1	3.08				0.00	6. (CS1)		D13 ; 6*0.995kg/m+ D10 ; 6*3*0.56kg/m									
						0.00				0.00			=15.05kg/m2---107.0kg/m3									
3-4	D11150	2.875	0.50	0.15	1	0.22				0.00												
		5.35	3.325	0.15	1	2.67				0.00												
		5.60	4.300	0.15	1	3.61				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
		5.70	2.175	0.15	1	1.86				0.00												
						0.00				0.00												
4-5	D11150	5.60	3.075	0.15	1	2.58				0.00												
		5.60	4.300	0.15	1	3.61				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
		5.60	3.150	0.15	1	2.65				0.00												
		5.60	4.175	0.15	1	3.51				0.00												
						0.00				0.00												
5-6	D11150	5.35	5.325	0.15	1	4.27				0.00												
		5.60	2.325	0.15	1	1.95				0.00												
		5.35	3.825	0.15	1	3.07				0.00												
		5.35	3.825	0.15	1	3.07				0.00												
		5.35	3.150	0.15	1	2.53				0.00												
		5.35	4.175	0.15	1	3.35				0.00												
						0.00				0.00												
6-7	D11150	5.35	4.125	0.15	1	3.31				0.00												
		5.10	1.425	0.15	1	1.09				0.00												
		5.60	1.850	0.15	1	1.55				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
		5.60	3.825	0.15	1	3.21				0.00												
						0.00				0.00												
7-8	D11150	5.35	4.125	0.15	1	3.31				0.00												
		5.35	1.425	0.15	1	1.14				0.00												
		5.60	1.850	0.15	1	1.55				0.00												
		5.35	3.825	0.15	1	3.07				0.00			1F Slab RE-Bar SUM									
		5.35	3.825	0.15	1	3.07				0.00	RE-Bar NET Weight :		101.98*44 =		4568.70	kg						
						0.00				0.00												
	1F Slab	SUM				101.98				0.00				(679.87m2*12m/m2=	8158.4	m						

CALCULATION
Detailed Design
on Port Reactivation Project
in La Union Province

CALC FILE No.:		
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CHECKED BY		Aug.02

TAKE-OFF SHEET

[3A03 CONCRETE AND FORMWORK]

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

		CONCRETE					FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	2F Slab																					
1-2	2S2I120	5.60	3.825	0.12	1	2.52	5.60	3.825	1	21.04												
		5.50	3.675	0.12	1	2.43	5.50	3.675	1	20.21												
		5.50	3.725	0.12	1	2.46	5.50	3.725	1	20.49												
		5.50	3.575	0.12	1	2.36	5.50	3.575	1	19.66												
3-4	2S2I120	5.70	3.70	0.12	1	2.53	5.70	3.70	1	21.09												
		3.20	3.70	0.12	1	1.42	3.20	3.70	1	11.84												
4-5	2S2I120	5.70	3.70	0.12	1	2.53	5.70	3.70	1	21.09												
		5.40	3.70	0.12	1	2.40	5.40	3.70	1	19.98												
		5.40	3.175	0.12	1	2.06	5.40	3.175	1	17.15												
5-6	2S2I120	5.70	3.70	0.12	1	2.53	5.70	3.70	1	21.09												
		5.40	3.70	0.12	1	2.40	5.40	3.70	1	19.98												
		5.40	3.175	0.12	1	2.06	5.40	3.175	1	17.15												
											2S2 :											
6-7	2S2I120	1.671	7.70	0.12	1	1.54	1.671	7.70	1	12.87	CONC. SUM			29.37	m3							
		0.67	1.651	0.12	1	0.13	0.67	1.651	1	1.11	RE-Bar NET Weight ; 29.37*102.67=				3015.21	kg						
5-6	2S1I150	2.825	2.575	0.15	1	1.09	2.825	2.575	1	7.27												
		2.525	5.700	0.15	1	2.16	2.525	5.700	1	14.39												
6-7	2S1I150	5.60	2.70	0.15	1	2.27	5.60	2.70	1	15.12												
		5.60	2.70	0.15	1	2.27	5.60	2.70	1	15.12												
											2S1 :											
7-8	2S1I150	5.30	3.825	0.15	1	3.04	5.30	3.825	1	20.27	CONC. SUM			12.04	m3							
		5.05	1.60	0.15	1	1.21	5.05	1.60	1	8.08	RE-Bar NET Weight ; 12.04*82.13=				988.76	kg						
	2S4I150	2.28	2.20	0.15	1	0.75	2.28	2.20	1	5.02	2S4 :											
											CONC. SUM			0.75	m3							
											RE-Bar NET Weight ; 0.75*124.0=				93.30	kg						
	CS1I150	1.03	5.70	0.15	9	7.89	1.03	5.70	9	52.56	CS1 :											
		1.03	3.88	0.15	1	0.60	1.03	3.88	1	3.98	CONC. SUM			11.10	m3							
		1.13	7.78	0.15	1	1.32	1.13	7.78	1	8.79	RE-Bar NET Weight ; 11.0*107.0=				1187.26	kg						
		1.13	7.63	0.15	1	1.29	1.13	7.63	1	8.62												
	PC Slab			401.2	m2						RE-Bar ; (D10) 10m/m2									4012.0	m	
				Conc. 401.2*0.05=		20.06					RE-Bar NET Weight ; 4012*0.56=				2246.72	kg						
	2F Slab SUM					73.32				403.56					7531.243	kg						
*	3F Slab																					
5-6	3S1I150	3.675	2.575	0.15	1	1.42	2.825	2.575	1	7.27												
		2.575	1.800	0.15	1	0.70	2.525	5.700	1	14.39												
		2.475	2.725	0.15	1	1.01	2.475	2.725	1	6.74												
		0.825	2.900	0.15	1	0.36	0.825	2.900	1	2.39												
6-7	3S1I150	5.85	2.68	0.15	1	2.35	5.85	2.68	1	15.65												
		5.85	2.73	0.15	1	2.39	5.85	2.73	1	15.84												
7-8	3S1I150	5.60	2.025	0.15	1	1.70	5.60	2.025	1	11.34	3S1 :											
		4.63	1.58	0.15	1	1.10	4.63	1.58	1	7.31	CONC. SUM			14.06	m3							
		5.30	3.825	0.15	1	3.04	5.30	3.825	1	20.27	RE-Bar NET Weight ; 14.06*82.13=				1154.86	kg						
	3S4I150	2.28	2.20	0.15	1	0.75	2.28	2.20	1	5.02	3S4 :											
											CONC. SUM			0.75	m3							
											RE-Bar NET Weight ; 0.75*124.0=				93.30	kg						
	CS1I150	1.03	5.70	0.15	12	10.52	1.03	5.70	12	70.11	CS1 :											
		1.10	2.10	0.15	1	0.35	1.10	2.10	1	2.31	CONC. SUM			10.88	m3							
											RE-Bar NET Weight ; 10.88*107.0=				1162.34	kg						
	PC Slab			455.2	m2						RE-Bar ; (D10) 10m/m2									4552.0	m	
				Conc. 455.2*0.05=		22.76					RE-Bar NET Weight ; 4552*0.56=				2549.12	kg						
	3F Slab SUM					48.44				176.75					4959.65	kg						

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
CALC FILE No.:		
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PREPARED BY	[illegible]	Jul.07
CHECKED BY	[illegible]	[illegible]

		CONCRETE					FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	4F Slab																					
4-5	4S11150	5.60	3.70	0.15	2	6.22	5.60	3.70	2	41.44												
		2.68	3.53	0.15	4	5.66	2.68	3.53	4	37.72												
		5.83	1.08	0.15	2	1.88	5.83	1.08	2	12.52												
5-6	4S11150	4.00	2.20	0.15	1	1.32	4.00	2.20	1	8.80												
		4.00	2.48	0.15	2	2.98	4.00	2.48	2	19.84												
		5.60	1.78	0.15	1	1.50	5.60	1.78	1	9.97												
		1.35	2.20	0.15	1	0.45	1.350	2.20	1	2.97												
		1.35	2.48	0.15	2	1.00	1.350	2.48	2	6.70	4S1 :											
		0.83	2.90	0.15	1	0.36	0.83	2.90	1	2.41	CONC. SUM		22.37	m3								
		2.73	2.48	0.15	1	1.02	2.73	2.48	1	6.77	RE-Bar NET Weight : 22.37*82.13=				1837.24	kg						
	4S41150	2.28	2.20	0.15	1	0.75	2.28	2.20	1	5.02	4S4 :											
											CONC. SUM		0.75	m3								
											RE-Bar NET Weight : 0.75*124.0=				93.00	kg						
	CS11150	1.03	5.70	0.15	10	8.76	1.03	5.70	10	58.43	CS1 :											
		1.10	2.10	0.15	1	0.35	1.10	2.10	1	2.31	CONC. SUM		9.78	m3								
		0.70	3.20	0.15	2	0.67	0.70	3.20	2	4.48	RE-Bar NET Weight : 9.78*107.0=				1046.70	kg						
	PC Slab			390.4	m2						RE-Bar : (D10) 10m/m2									3904.0	m	
				Conc. 390.4*0.05=		19.52					RE-Bar NET Weight : 3904*0.56=				2186.24	kg						
	4F Slab	SUM				52.42				219.36					5183.478	kg						
*	5F Slab																					
A-B	5S11150	4.05	2.45	0.15	1	1.49	4.05	2.45	1	9.92												
		4.05	2.48	0.15	1	1.51	4.05	2.48	1	10.04												
		4.05	2.20	0.15	1	1.34	4.05	2.20	1	8.91												
		1.35	2.45	0.15	1	0.50	1.35	2.45	1	3.31												
		1.35	2.48	0.15	1	0.50	1.35	2.48	1	3.35												
		1.35	2.20	0.15	1	0.45	1.35	2.20	1	2.97												
		5.60	1.78	0.15	1	1.50	5.60	1.78	1	9.97												
		0.83	2.90	0.15	1	0.36	0.83	2.90	1	2.41												
		2.73	2.45	0.15	1	1.00	2.73	2.45	1	6.69												
B-C	5S11150	2.55	2.00	0.15	2	1.53	2.55	2.00	2	10.20												
		2.68	2.00	0.15	2	1.61	2.68	2.00	2	10.72												
		2.55	2.80	0.15	2	2.14	2.55	2.80	2	14.28												
		2.68	3.25	0.15	2	2.61	2.68	3.25	2	17.42	5S1 :											
		1.90	0.90	0.15	2	0.51	1.90	0.90	2	3.42	CONC. SUM		18.81	m3								
		2.20	2.68	0.15	2	1.77	2.20	2.68	2	11.79	RE-Bar NET Weight : 18.81*82.13=				1544.83	kg						
	CS11150	3.60	1.48	0.15	1	0.80	3.60	1.48	1	5.33	CS1 :											
											CONC. SUM		0.80	m3								
											RE-Bar NET Weight : 0.80*107.0=				85.51	kg						
	5F Slab	SUM				19.61				130.73					1630.349	kg						
*	6F Slab																					
A-B	6S11150	4.05	2.45	0.15	1	1.49	4.05	2.45	1	9.92												
		4.05	2.48	0.15	1	1.51	4.05	2.48	1	10.04												
		4.05	2.20	0.15	1	1.34	4.05	2.20	1	8.91												
		1.35	2.45	0.15	1	0.50	1.35	2.45	1	3.31												
		1.35	2.48	0.15	1	0.50	1.35	2.48	1	3.35												
		1.35	2.20	0.15	1	0.45	1.35	2.20	1	2.97												
		5.60	1.78	0.15	1	1.50	5.60	1.78	1	9.97												
		0.83	2.90	0.15	1	0.36	0.83	2.90	1	2.41												
		2.73	2.45	0.15	1	1.00	2.73	2.45	1	6.69												
B-C	6S11150	2.55	2.00	0.15	2	1.53	2.55	2.00	2	10.20												
		2.68	2.00	0.15	2	1.61	2.68	2.00	2	10.72												
		2.55	2.80	0.15	2	2.14	2.55	2.80	2	14.28												
		2.68	3.25	0.15	2	2.61	2.68	3.25	2	17.42	6S1 :											
		1.90	0.90	0.15	2	0.51	1.90	0.90	2	3.42	CONC. SUM		18.81	m3								
		2.20	2.68	0.15	2	1.77	2.20	2.68	2	11.79	RE-Bar NET Weight : 18.81*82.13=				1544.83	kg						
	CS11150	3.60	1.48	0.15	1	0.80	3.60	1.48	1	5.33	CS1 :											
											CONC. SUM		0.80	m3								
											RE-Bar NET Weight : 0.807.99*107.0=				85.51	kg						
	6F Slab	SUM				19.61				130.73					1630.349	kg						

CALCULATION		
Detailed Design		
on Port Reactivation Project		
in La Union Province		
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TAKE-OFF SHEET

[3A03 CONCRETE AND FORMWORK]

QUANTITY CALCULATION SHEET

PORT ADMINISTRATION BUILDING

		CONCRETE					FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	RF Slab																					
A-B	RS2l120	2.78	2.45	0.12	4	3.27	2.78	2.45	4	27.24												
		2.78	2.48	0.12	3	2.48	2.78	2.45	3	20.68												
		2.78	2.20	0.12	4	2.94	2.78	2.20	4	24.46												
		2.48	1.75	0.12	1	0.52	2.48	1.75	1	4.34												
		0.83	2.48	0.12	1	0.25	0.83	2.48	1	2.06												
B-C	RS2l120	2.55	2.00	0.12	2	1.22	2.55	2.00	2	10.20												
		2.68	2.00	0.12	2	1.29	2.68	2.00	2	10.72												
		2.55	2.80	0.12	2	1.71	2.55	2.80	2	14.28												
		2.68	3.25	0.12	2	2.09	2.68	3.25	2	17.42	RS2 :											
		1.90	0.90	0.12	2	0.41	1.90	0.90	2	3.42	CONC. SUM		17.59	m3								
		2.20	2.68	0.12	2	1.42	2.20	2.68	2	11.79	RE-Bar NET Weight : 17.59*102.67=				1806.44	kg						
	CS1l150	4.30	1.48	0.15	1	0.95	4.30	1.48	1	6.36	CS1 :											
											CONC. SUM		0.95	m3								
											RE-Bar NET Weight : 7.99*102.67				102.14	kg						
	RF Slab	SUM				18.55				152.99					1908.579	kg						
											Slab(+1FL) CONC. SUM				231.94	m3						
											Slab(+1FL) RE-Bar NET Weight				22823.65	kg		*1.04=	23736.6	kg		
*	1F WALL																					
-A	W20	3.20	5.20	0.20	1	3.33	3.20	5.20	2	33.28												
A-B	W20	5.60	4.65	0.20	1	5.21	5.60	4.65	2	52.08												
		3.00	4.80	0.20	1	2.88	3.00	4.80	2	28.80												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
5-6	W20	2.45	4.80	0.20	1	2.35	2.45	4.80	2	23.52												
		6.00	4.80	0.20	1	5.76	6.00	4.80	2	57.60												
		1.25	5.20	0.20	1	1.30	1.25	5.20	2	13.00												
						0.00																
6	W20	0.875	5.20	0.20	1	0.91	0.875	5.20	2	9.10												
		5.225	4.45	0.20	1	4.65	5.225	4.45	2	46.50												
	1F WALL	SUM				25.76				257.58												
*	2F WALL																					
A	W20	2.75	3.15	0.20	1	1.73	2.75	3.15	2	17.33												
A-B	W20	5.60	3.25	0.20	1	3.64	5.60	3.25	2	36.40												
		3.00	3.25	0.20	1	1.95	3.00	3.25	2	19.50												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
						0.00				0.00												
5-6	W20	2.45	3.40	0.20	1	1.67	2.45	3.40	2	16.66												
		5.30	3.40	0.20	1	3.60	5.30	3.40	2	36.04												
						0.00				0.00												
6	W20	5.225	3.05	0.20	1	3.19	5.225	3.05	2	31.87												
						0.00				0.00												
	2F WALL	SUM				15.15				151.50												

CALCULATION
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RED BY	Y.F	Jul.04
BY	CHH	Aug04

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	3F WALL																					
A	W20	2.75	3.15	0.20	1	1.73	2.75	3.15	2	17.33												
										0.00												
A-B	W20	5.60	3.25	0.20	1	3.64	5.60	3.25	2	36.40												
		3.00	3.25	0.20	1	1.95	3.00	3.25	2	19.50												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
5-6	W20	2.45	3.40	0.20	1	1.67	2.45	3.40	2	16.66												
		5.30	3.40	0.20	1	3.60	5.30	3.40	2	36.04												
6	W20	5.225	3.05	0.20	1	3.19	5.225	3.05	2	31.87												
	3F WALL	SUM				15.15				151.50												
*	4F WALL																					
A	W20	2.75	3.15	0.20	1	1.73	2.75	3.15	2	17.33												
A-B	W20	5.60	3.25	0.20	1	3.64	5.60	3.25	2	36.40												
		3.00	3.25	0.20	1	1.95	3.00	3.25	2	19.50												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
5-6	W20	2.45	3.40	0.20	1	1.67	2.45	3.40	2	16.66												
		5.30	3.40	0.20	1	3.60	5.30	3.40	2	36.04												
6	W20	5.225	3.05	0.20	1	3.19	5.225	3.05	2	31.87												
	4F WALL	SUM				15.15				151.50												
*	5F WALL																					
A	W20	2.75	3.15	0.20	1	1.73	2.75	3.15	2	17.33												
A-B	W20	5.60	3.25	0.20	1	3.64	5.60	3.25	2	36.40												
		3.00	3.25	0.20	1	1.95	3.00	3.25	2	19.50												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
5-6	W20	2.45	3.40	0.20	1	1.67	2.45	3.40	2	16.66												
		5.30	3.40	0.20	1	3.60	5.30	3.40	2	36.04												
6	W20	5.225	3.05	0.20	1	3.19	5.225	3.05	2	31.87												
	5F WALL	SUM				15.15				151.50												
*	6F WALL																					
A	W20	2.75	3.15	0.20	1	1.73	2.75	3.15	2	17.33												
A-B	W20	5.60	3.25	0.20	1	3.64	5.60	3.25	2	36.40												
		3.00	3.25	0.20	1	1.95	3.00	3.25	2	19.50												
		-0.80	2.10	0.20	1	-0.34	-0.80	2.10	2	-3.36												
		-0.70	2.10	0.20	1	-0.29	-0.70	2.10	2	-2.94												
											Calculation of Wall RE-Bar			VB; 2-D13 @200 , HB; 2-D10 @200								
5-6	W20	2.45	3.40	0.20	1	1.67	2.45	3.40	2	16.66	(D13) 6m*2*0.995kg/m+ (D10) 6m*2*0.56kg/m=18.86kg/m2→							93.3kg/m3				
		5.30	3.40	0.20	1	3.60	5.30	3.40	2	36.04												
										0.00	Wall CONC. SUM		101.51	m3								
6	W20	5.225	3.05	0.20	1	3.19	5.225	3.05	2	31.87	RE-Bar NET Weight	:	101.51*93.3		9470.603	kg		*1.04=	9849.4	kg		
	6F WALL	SUM				15.15				0.00												
										151.50												

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PREPARED BY	Y. F	Jul.02
CHECKED BY	[illegible]	Aug.02

	CONCRETE						FORMING				RE-BAR (m)											
	Symbol	Width (m)	Height (m)	Length (m)	Q'ty	Volume (m^3)	Width (m)	Height (m)	Q'ty	Area (m^2)	Symbol	Diameter (mm)	Length (m)	Numbers	Q'ty	D10	D13	D16	D19	D22	D25	D32
*	2F BALCONY																					
AC	Wall	38.40	0.70	0.15	2	8.06	38.40	1.40	2	107.52												
	2F BALCONY		SUM			8.06				107.52												
*	3F BALCONY																					
AC	Wall	38.40	0.70	0.15	2	8.06	38.40	1.40	2	107.52												
	3F BALCONY		SUM			8.06				107.52												
*	2F PARAPET																					
		0.15	0.15	54.50	1	1.23	0.15	54.50	1	8.18												
		0.15	0.50	54.50	1	4.09	1.00	54.50	1	54.50												
	R	0.15	0.15	19.50	1	0.44	0.15	19.50	1	2.93												
		0.15	0.50	19.50	1	1.46	1.00	19.50	1	19.50												
	2F PARAPET		SUM			7.22		22.43		82.68												
*	4F PARAPET																					
		0.70	0.20	52.60	1	7.36	1.40	52.60	1	73.64												
		0.70	0.20	52.60	1	7.36	1.40	52.60	1	73.64												
	R	0.70	0.20	7.00	1	0.98	1.40	7.00	1	9.80												
	4F PARAPET		SUM			15.71		9.80		147.28												
*	RF PARAPET																					
		0.20	1.00	36.00	1	7.20	2.00	36.00	1	72.00	Calculation of Balcony & Parapet RE-Bar VB; D10 @200 , HB; D10 @250											
											(D10): (5+5)m*0.56kg/m=6.16kg/m2---51.3kg/m3						51.3kg/m3					
	R	0.20	1.00	18.84	1	3.77	2.00	18.84	1	37.68	MISCELLANEOUS CONC. SUM				50.02	m3						
											RE-Bar NET Weight : 95.38*51.3				2565.97	kg		*1.04=	2668.6	kg		
	RF PARAPET		SUM			10.97		37.68		72.00												

CALCULATION		
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	INITIAL	DATE
PREPARED BY	Y. F.	Jul.08
CHECKED BY	[illegible]	Aug.02

DISCRIPTION & LOCATION		TOTAL Qty	SUB TOTAL	CALCULATION
ADMINISTRATION BUILDING S-3				
S3 PRECAST PRESTRESS DECK t=150 & CONCRETE TOPPING t=50		1246.80	m2	
2F		401.20		
	2-3		99.20	6.2 * 8.0 * 2
	3-4		60.00	6.0 * 10.0 * 1
	4-5		60.00	6.0 * 10.0 * 1
	5-6		60.00	6.0 * 10.0 * 1
	6-7		60.00	6.0 * 10.0 * 1
	7-8		62.00	6.2 * 10.0 * 1
3F		455.20		
	2-3		99.20	6.2 * 8.0 * 2
	3-4		96.00	6.0 * 8.0 * 2
	4-5		96.00	6.0 * 8.0 * 2
	5-6		12.00	6.0 * 2.0 * 1
			30.00	6.0 * 5.0 * 1
	6-7		60.00	6.0 * 10.0 * 1
	7-8		62.00	6.2 * 10.0 * 1
4F		390.40		
	2-3		99.20	6.2 * 8.0 * 2
	3-4		96.00	6.0 * 8.0 * 2
	6-7		96.00	6.0 * 8.0 * 2
	7-8		99.20	6.2 * 8.0 * 2

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CHECKED BY		Aug'04

ADMINISTRATION BUILDING

No.1