

Republic of the Philippines
Department of Public Works and Highways
Bureau : DPWH
Region : IX
District/City : Zamboanga City

PROGRAM OF WORK
(For all types of Project)

NAME/LOCATION OF PROJECT : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City	Appropriation	:	P 300,000,000.00
	Source of Funds	:	CY 2018 Regular Infra Project
	Issued Obligated Authority	:	
	Released	:	
PROJECT CATEGORY : NATIONAL ROAD	Cal. Days to Complete	:	504 Calendar Days
	Desirable Starting Date	:	Upon Approval
	Mode of Implementation	:	By Contract
PROJECT DESCRIPTION : Scope of Work : Construction of Flyover & ROW Acquisition Flyover Width : 17.50 meters (Physical Target = 7659.93 m ²) Clear Roadway : 2 x 7.40 meters = 14.80 meters No. Of Lanes : 4 Lanes Deck Slab Thickness : 0.22 meters Roadway Thickness : 0.30 meters PCCP (Reinforced)	STATION LIMITS :		
	Begining Of Project :		1935 + 738.86
	End Of Project :		1936 + 176.56
	Abutment - A :		1935 + 824.03
	Abutment - B :		1936 + 072.65
	Total Length of Bridge :		248.62 Ln.M.
	Total Length of Flyover :		437.70 Ln.M.

MINIMUM EQUIPMENT REQUIREMENT :				TECHNICAL PERSONNEL REQUIRED :		
Description	No.	Description	No.	Description	No.	
Bulldozer (155 HP), D65A-8	1	Drilling Rig	1	Project Engineer	1	
Payloader (1.50 cu.m.)	1	One Bagger Mixer	1	Materials Engineer	1	
Motorized Road Grader, G710A	1	Transit Mixer (5 cu.m.)	4	Materials Lab. Tech.	1	
Vibratory Roller (10 m.t.), SP56	1	Concrete Saw, Blade Ø 14" (7.5 Hp)	2	Surveyor	1	
Batching Plant (30 cu.m.)	1	Bar Cutter, Single Phase	2	Safety Practitioner	1	
Dumptruck (10 cu.m.)	4	Bar Bender	2	Foreman	2	
Backhoe (0.80 cu.m.)	2	Concrete Vibrator	2	Carpenter	8	
Water Truck	2	Truck Mounted Crane	2	Mason	10	
Cargo Truck (10T, 270 Hp)	2	Plate Compactor	1	Laborer	20	

ESTIMATED COST OF PROPOSED WORK						
ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART A - FACILITIES FOR THE ENGINEER						
A.1.1(3)	Construction of Field Office for the Engineer, (7.00m x 9.00m)	0.242	l.s.	1.00	474,900.90	474,900.90
A.1.1(11)	Provision of Furnitures/Fixtures. Equipment and Appliances for the	0.068	l.s.	1.00	133,745.00	133,745.00
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle	0.307	mos.	12.00	601,292.00	50,107.67
PART B - OTHER GENERAL REQUIREMENTS						
B.4(1)	Construction Survey and Staking	0.017	km	0.44	34,272.00	78,300.20
B.5	Project Billboard/Signboard	0.007	each	2.00	12,909.20	6,454.60
B.7	Occupational Safety and Health Program	0.137	l.s.	1.00	268,374.80	268,374.80
B.8(2)	Traffic Management	0.718	l.s.	1.00	1,405,942.40	1,405,942.40
B.9	Mobilization & Demobilization	0.816	l.s.	1.00	1,598,304.00	1,598,304.00
PART C - EARTHWORKS						
101(1)	Removal of Structures and Obstructions	1.088	L.S.	1.00	2,130,513.12	2,130,513.12
103(2)α	Bridge Excavation	0.225	cu.m.	1,910.00	440,846.62	230.81
104(1)α	Embankment from Roadway Excavation	0.084	cu.m.	716.00	165,083.99	230.56

ESTIMATED COST OF PROPOSED WORK

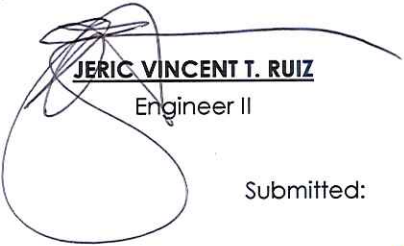
ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course, 0.30m. Thick	0.155	cu.m.	221.40	304,054.37	1,373.33
PART E - SURFACE COURSE						
311(1)e1	Portland Cement Concrete Pavement (Unreinforced) 0.28 mm. thick	0.645	sq.m.	738.00	1,262,539.46	1,710.76
PART F - BRIDGE CONSTRUCTION						
400(17)e	Concrete Piles cast in Drilled Holes (1.20 m dia.)	3.684	ln.m.	150.00	7,216,130.23	48,107.53
400(17)h	Concrete Piles cast in Drilled Holes (1.50 m dia.)	11.887	ln.m.	432.00	23,282,419.98	53,894.49
400(23)e2	Permanent Casing (1.20m Diam.)	1.427	ln.m.	120.00	2,794,895.22	23,290.79
400(23)h2	Permanent Casing (1.50m Diam.)	4.267	ln.m.	288.00	8,358,077.62	29,021.10
400(26)a	Pile Integrity Test (Crosshole-Sonic)	0.967	each	8.00	1,894,769.01	236,846.13
400(27)	High Strain Dynamic Test (P.D.A.)	0.179	each	2.00	349,653.40	174,826.70
401(1)a1	Metal Railing	1.218	ln.m.	497.24	2,384,853.12	4,796.18
404(1)a	Reinforcing Steel Bar, (Grade 40)	0.410	Kgs.	15,337.00	803,781.21	52.41
404(1)b	Reinforcing Steel Bar, (Grade 60)	15.201	Kgs.	516,029.79	29,773,510.33	57.70
405(1)b2	Structural Concrete, 27.58 Mpa	15.004	cu.m.	3,321.46	29,387,674.51	8,847.82
406(1)g10	Prestressed Structural Concrete Members, Type V (35.0 m)	32.402	each	48.00	63,464,571.99	1,322,178.58
406(1)h1	Prestressed Structural Concrete Members, Type VI (33.0 m)	1.161	each	2.00	2,274,916.18	1,137,458.09
406(1)h2	Prestressed Structural Concrete Members, Type VI (34.0 m)	1.172	each	2.00	2,295,201.37	1,147,600.68
406(1)h3	Prestressed Structural Concrete Members, Type VI (35.0 m)	1.182	each	2.00	2,315,578.06	1,157,789.03
406(1)h4	Prestressed Structural Concrete Members, Type VI (36.0 m)	1.193	each	2.00	2,335,863.25	1,167,931.63
407(8)	Lean Concrete	0.085	cu.m.	29.61	166,066.25	5,608.45
412(1)	Elastomeric Bearing Pads	2.304	each	112.00	4,512,072.04	40,286.36
413(3)b	Premoulded Expansion Joint Filler with Sealant	0.008	cu.m.	44.10	15,815.16	358.62
413(7)a1	Expansion Dam for Bridges (Steel)	0.631	set	4.00	1,235,839.91	308,959.98
414(1)	Forms and Falseworks	1.107	ls	1.00	2,169,047.12	2,169,047.12
TOTAL		100.000			P 195,863,513.81	

NAME OF PROJECT : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW,
Zamboanga City

STATION LIMITS: Beginning Of Project : 1935 + 738.86
End Of Project : 1936 + 176.56
Abutment - A : 1935 + 824.03
Abutment - B : 1936 + 072.65

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	41.97	125,896,384.03
A.2. Labor	4.52	13,562,797.34
A.3. Equipment Expenses	18.80	56,404,332.44
SUB-TOTAL (DIRECT COST)	65.29	P 195,863,513.81
B. INDIRECT COST (Per D.O. # 197 s.2016)		
B.1. Overhead, Contingency & Misc. (8% Max. of D.C.)	5.12	15,348,468.45
B.2. Profit (8 % Max. of D.C.)	5.16	15,493,113.42
C. VAT (5% of D.C. and I.C.)	3.78	11,335,254.78
SUBTOTAL (CONTRACT COST)	79.35	P 238,040,350.46
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.50%)	3.50	10,500,000.00
2. Detailed Engineering (1%)		
3. Reserved for the Payment of RROW	16.67	50,000,000.00
4. Physical Reserved	0.49	1,459,649.54
TOTAL ESTIMATED PROJECT COST	100.00	P 300,000,000.00

Prepared:


JERIC VINCENT T. RUIZ
Engineer II

Checked:


JERALD R. BARRERA
Engineer II

Submitted:


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMOMBAO D. DIA
Assistant Regional Director

Approved:


JORGE U. SEBASTIAN, JR., CESO III
Regional Director

PROJECT: Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camino/MCLL Highway and Veterans Avenue Flyover including ROW,
Zamboanga City

LIMITS

Beg. of Project 1935+738.86
Abutment-A 1935+824.09
Abutment-B 1936+072.65
End of Project 1936+174.56

TOTAL LENGTH OF BRIDGE 248.62 In.Mt.
TOTAL LENGTH OF FLYOVER 437.70 In.Mt.

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY												REMARKS		
			BRIDGE														
			ABUTMENT-A	PIER-1	PIER-2	PIER-3	PIER-4	PIER-5	PIER-6	ABUTMENT-B	SUPER	BRIDGE	APPROACHES	TOTAL (As to Piers)	TOTAL (As to POW) BRIDGE ONLY		
PART - A, FACILITIES FOR THE ENGINEERS																	
A.1.1(3)	Construction of Field Office for the Engineer (7.0 m x 9.0 m)	L.S.													1.00	1.00	
PART - B, OTHER GENERAL REQUIREMENTS																	
B.5	Project Billboard/Signboard	Each													2.00	2.00	
B.7	Occupational Safety and Health Program	L.S.													1.00	1.00	
B.8(2)	Traffic Management	L.S.													1.00	1.00	
PART - C, EARTHWORK																	
101(1)	Removal of Structures and Obstructions	L.S.													1.00	1.00	
103(1)a	Structure Excavation	Cu.M.											2,720.64	2,720.64	-	-	
103(2)a	Bridge Excavation	Cu.M.	23.00	307.00	309.00	321.00	321.00	309.00	302.00	23.00			1,910.00	1,910.00	1,910.00		
104(1)a	Embankment from Roadway Excavation	Cu.M.	5.00	109.00	116.00	128.00	128.00	116.00	109.00	5.00			716.00	716.00	716.00	(Embank excavated footing)	
104(2)a	Embankment, Common Borrow	Cu.M.											6,927.00	6,927.00	-	Compacted Volume	
PART - D, SUBBASE AND BASE COURSE																	
200(1)	Aggregate Subbase Course	Cu.M.			110.70					110.70			221.40	981.00	1,202.40	221.40	0.30 m. thk. (Restoration due to footing Excavation)
PART - E, SURFACE COURSE																	
311(1)a	Portland Cement Concrete Pavement (Unreinforced)	Sq.M.			369.00					369.00			738.00	738.00	738.00	0.28 m. thk. (Restoration due to footing Excavation)	
311(2)a	Portland Cement Concrete Pavement (Reinforced)	Sq.M.											2,798.00	2,798.00	-	0.30 m. thk. (Approaches)	
PART - F, BRIDGE CONSTRUCTION																	
400(17)a	Concrete Piles cast in Drilled Holes	Ln.M.	75.00										150.00	150.00	150.00	1200 mm. Ø; Length per Pile = 15 m.	
400(17)b	Concrete Piles cast in Drilled Holes	Ln.M.		72.00	72.00	72.00	72.00	72.00	72.00				432.00	432.00	432.00	1500 mm. Ø; Length per Pile = 18 m.	
400(23)a	Permanent Casing	Ln.M.	60.00							60.00			120.00	120.00	120.00	1200 mm. Ø; 12 mm. thk.	
400(23)b	Permanent Casing	Ln.M.		48.00	48.00	48.00	48.00	48.00	48.00				288.00	288.00	288.00	1500 mm. Ø; 12 mm. thk.	
400(26)a	Pile Integrity Testing	Each	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			8.00	8.00	8.00	Creschot-Sonic	
400(27)	High Strain Dynamic Testing (P.D.A.)	Each	1.00			1.00							2.00	2.00	2.00		
401(13)a	Metal Railing (Steel)	Ln.M.											497.24	497.24	497.24		
401(2)c	Concrete Railing (Parapet)	Ln.M.											378.16	378.16			
404(1)a	Reinforcing Steel, Grade 40	Tg.	204.00							204.00		14,929.00	15,337.00	21,910.10	15,337.00	(Excluding Approaches)	
404(1)b	Reinforcing Steel, Grade 60	Tg.	18,165.00	53,201.73	56,661.06	60,190.60	60,190.60	56,661.06	53,201.73	19,372.00		238,253.00	615,896.79	74,549.62	690,446.41	516,029.79 (Excluding Approaches & deck slab on spans 3 & 4 & 5)	
405(1)b2	Structural Concrete, Class 'A'	Cu.M.	148.00	291.08	307.48	327.17	327.17	307.48	291.08	165.00		1,744.00	3,908.46	1,492.71	5,401.17	3,321.46 (Excluding Approaches & deck slab on spans 3, 4 & 5)	
406(11)a	Prestressed Concrete AASHTO Girder (Type V)	Each										48.00	48.00	48.00	48.00	Type V; 48 of 35.00m	
406(11)b1	Prestressed Concrete AASHTO Girder (Type VI)	Each										2.00	2.00	2.00	2.00	Type VI: 2 of 33.00m	
406(11)b2	Prestressed Concrete AASHTO Girder (Type VI)	Each										2.00	2.00	2.00	2.00	Type VI: 2 of 34.00m	
406(11)b3	Prestressed Concrete AASHTO Girder (Type VI)	Each										2.00	2.00	2.00	2.00	Type VI: 2 of 35.00m	
406(11)b4	Prestressed Concrete AASHTO Girder (Type VI)	Each										2.00	2.00	2.00	2.00	Type VI: 2 of 36.00m	
407(8)	Lean Concrete	Cu.M.	6.14	2.89	2.89	2.89	2.89	2.89	2.89	6.14			29.61	52.95	82.56	29.61	
412(1)	Elastomeric Bearing Pad	Each	8.00	16.00	16.00	16.00	16.00	16.00	16.00	8.00			112.00	112.00	112.00		
413(1)a	Preformed Sponge Rubber Joint Expansion	Cu.M.	2.00	5.71	6.98	7.37	7.37	6.98	5.71	2.00			44.10	66.80	44.10		
413(7)a1	Expansion Dam for Bridges (Steel)	Set	1.00		1.00			1.00		1.00			4.00	4.00	4.00	Transverse	
414(1)	Forms and Falsework	L.S.											1.00	1.00	1.00		
PART - H, MISCELLANEOUS STRUCTURES																	
612(1)	ReflectORIZED Thermoplastic Pavement Marking(White)	Sq.M.											99.00	76.00	175.00	-	
612(2)	ReflectORIZED Thermoplastic Pavement Marking(Yellow)	Sq.M.											75.00	57.00	132.00	-	

PREPARED BY:

ENR VINCENT T. RUIZ
Engineer II

CHECKED BY:

PIO MARIO T. JACOBESANTOS
Engineer III

Chief, Bridge and Other Public Works Design Section

APPROVED BUDGET FOR THE CONTRACT

Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Contract Duration : 504.00 C.D.

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) (5) x (8)	(10) 5%[(5) + (9)]	(11) (9) + (10)	(12) (5) + (11)	(13) (12) / (3)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer, (7.00m x 9.00m)	1.00	l.s.	474,900.90	8.00	8.00	16.00	75,984.14	27,544.25	103,528.40	578,429.30	578,429.30
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the	1.00	l.s.	133,745.00	0.00	8.00	8.00	10,699.60	7,222.23	17,921.83	151,666.83	151,666.83
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle	12.00	mos.	601,292.00	0.00	0.00	0.00	-	30,064.60	30,064.60	631,356.60	52,613.05
PART B - OTHER GENERAL REQUIREMENTS												
B.4(1)	Construction Survey and Staking	0.44	km	34,272.00	8.00	8.00	16.00	5,483.52	1,987.78	7,471.30	41,743.29	95,369.64
B.5	Project Billboard/Signboard	2.00	each	12,909.20	8.00	8.00	16.00	2,065.47	748.73	2,814.21	15,723.41	7,861.70
B.7	Occupational Safety and Health Program	1.00	l.s.	268,374.80	0.00	8.00	8.00	21,469.98	14,492.24	35,962.22	304,337.02	304,337.02
B.8(2)	Traffic Management	1.00	l.s.	1,405,942.40	0.00	8.00	8.00	112,475.39	75,920.89	188,396.28	1,594,338.68	1,594,338.68
B.9	Mobilization & Demobilization	1.00	l.s.	1,598,304.00	0.00	0.00	0.00	-	79,915.20	79,915.20	1,678,219.20	1,678,219.20
PART C - EARTHWORKS												
101(1)	Removal of Structures and Obstructions	1.00	L.S.	2,130,513.12	8.00	8.00	16.00	340,882.10	123,569.76	464,451.86	2,594,964.98	2,594,964.98
103(2)a	Bridge Excavation	1,910.00	c.u.m.	440,846.62	8.00	8.00	16.00	70,535.46	25,569.10	96,104.56	536,951.19	281.13
104(1)a	Embankment from Roadway Excavation	716.00	c.u.m.	165,083.99	8.00	8.00	16.00	26,413.44	9,574.87	35,988.31	201,072.30	280.83
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course, 0.30m. Thick	221.40	c.u.m.	304,054.37	8.00	8.00	16.00	48,648.70	17,635.15	66,283.85	370,338.23	1,672.71
PART E - SURFACE COURSE												
311(1)e1	Portland Cement Concrete Pavement (Unreinforced) 0.28 mm. thick	738.00	sq.m.	1,262,539.46	8.00	8.00	16.00	202,006.31	73,227.29	275,233.60	1,537,773.06	2,083.70

D

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ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) [5] x (8)	(10) 5%[(5) + (9)]	(11) (9) + (10)	(12) [5] + (11)	(13) [12] / (3)
PART F - BRIDGE CONSTRUCTION												
400(17)e	Concrete Piles cast in Drilled Holes (1.20 m dia.)	150.00	In.m.	7,216,130.23	8.00	8.00	16.00	1,154,580.84	418,535.55	1,573,116.39	8,789,246.62	58,594.98
400(17)h	Concrete Piles cast in Drilled Holes (1.50 m dia.)	432.00	In.m.	23,282,419.98	8.00	8.00	16.00	3,725,187.20	1,350,380.36	5,075,567.56	28,357,987.54	65,643.49
400(23)e2	Permanent Casing (1.20m Diam.)	120.00	In.m.	2,794,895.22	8.00	8.00	16.00	447,183.24	162,103.92	609,287.16	3,404,182.38	28,368.19
400(23)h2	Permanent Casing (1.50m Diam.)	288.00	In.m.	8,358,077.62	8.00	8.00	16.00	1,337,292.42	484,768.50	1,822,060.92	10,180,138.54	35,347.70
400(26)a	Pile Integrity Test [Crosshole-Sonic]	8.00	each	1,894,769.01	8.00	8.00	16.00	303,163.04	109,896.60	413,059.64	2,307,828.65	288,478.58
400(27)	High Strain Dynamic Test (P.D.A.)	2.00	each	349,653.40	8.00	8.00	16.00	55,944.54	20,279.90	76,224.44	425,877.84	212,938.92
401(1)a1	Metal Rolling	497.24	In.m.	2,384,853.12	8.00	8.00	16.00	381,576.50	138,321.48	519,897.98	2,904,751.10	5,841.75
404(1)a	Reinforcing Steel Bar, (Grade 40)	15,337.00	Kgs.	803,781.21	8.00	8.00	16.00	128,604.99	46,619.31	175,224.30	979,005.51	63.83
404(1)b	Reinforcing Steel Bar, (Grade 60)	516,029.79	Kgs.	29,773,510.33	8.00	8.00	16.00	4,763,761.65	1,726,863.60	6,490,625.25	36,264,135.58	70.28
405(1)b2	Structural Concrete, 27.58 Mpa	3,321.46	c.u.m.	29,387,674.51	8.00	8.00	16.00	4,702,027.92	1,704,485.12	6,406,513.04	35,794,187.56	10,776.64
406(1)g10	Prestressed Structural Concrete Members, Type V (35.0 m)	48.00	each	63,464,571.99	8.00	8.00	16.00	10,154,331.52	3,680,945.18	13,835,276.69	77,299,848.68	1,610,413.51
406(1)h1	Prestressed Structural Concrete Members, Type VI (33.0 m)	2.00	each	2,274,916.18	8.00	8.00	16.00	363,986.59	131,945.14	495,931.73	2,770,847.90	1,385,423.95
406(1)h2	Prestressed Structural Concrete Members, Type VI (34.0 m)	2.00	each	2,295,201.37	8.00	8.00	16.00	367,232.22	133,121.68	500,353.90	2,795,555.26	1,397,777.63
406(1)h3	Prestressed Structural Concrete Members, Type VI (35.0 m)	2.00	each	2,315,578.06	8.00	8.00	16.00	370,492.49	134,303.53	504,796.02	2,820,374.08	1,410,187.04
406(1)h4	Prestressed Structural Concrete Members, Type VI (36.0 m)	2.00	each	2,335,863.25	8.00	8.00	16.00	373,738.12	135,480.07	509,218.19	2,845,081.44	1,422,540.72
407(8)	Lean Concrete	29.61	c.u.m.	166,066.25	8.00	8.00	16.00	26,570.60	9,631.84	36,202.44	202,268.69	6,831.09
412(1)	Elastomeric Bearing Pads	112.00	each	4,512,072.04	8.00	8.00	16.00	721,931.53	261,700.18	983,631.70	5,495,703.74	49,068.78
413(3)b	Premoulded Expansion Joint Filler with Sealant	44.10	c.u.m.	15,815.16	8.00	8.00	16.00	2,530.43	917.28	3,447.71	19,262.87	436.80
413(7)a1	Expansion Dam for Bridges (Steel)	4.00	set	1,235,839.91	8.00	8.00	16.00	197,734.39	71,678.71	269,413.10	1,505,253.01	376,313.25
414(1)	Forms and Falseworks	1.00	ls	2,169,047.12	8.00	8.00	16.00	347,047.54	125,804.73	472,852.27	2,641,899.39	2,641,899.39
T O T A L				195,863,513.81				11,335,254.78		238,040,350.46		

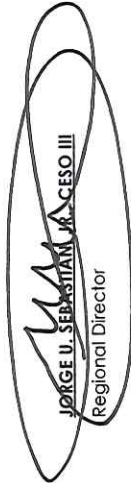
Submitted :

Recommending Approval :

Approved :


BELEM A. SAPALEDA
Head, BAC-TWG


CAYAMBABAO D. DIA
Assistant Regional Director


JORGE U. SEBASTIAN JR. CESCO III
Regional Director

**Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City**

S U M M A R Y O F D E T A I L E D E S T I M A T E S

ITEM NO.	DESCRIPTION	EQUIPMENT	LABOR	MATERIALS	TOTAL
PART A - FACILITIES FOR THE ENGINEER					
A.1.1(3)	Construction of Field Office for the Engineer, (7.00m x 9.00m)	33,798.53	87,665.28	353,437.09	474,900.90
A.1.1(11)	Provision of Furnitures/Fixtures. Equipment and Appliances for the	-	-	133,745.00	133,745.00
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle	-	159,552.00	441,740.00	601,292.00
PART B - OTHER GENERAL REQUIREMENTS					
B.4(1)	Construction Survey and Staking	1,421.14	8,375.36	24,475.50	34,272.00
B.5	Project Billboard/Signboard	-	3,479.20	9,430.00	12,909.20
B.7	Occupational Safety and Health Program	-	214,624.80	53,750.00	268,374.80
B.8(2)	Traffic Management	-	1,205,942.40	200,000.00	1,405,942.40
B.9	Mobilization & Demobilization	1,598,304.00	-	-	1,598,304.00
PART C - EARTHWORKS					
101(1)	Removal of Structures and Obstructions	1,976,833.92	153,679.20	-	2,130,513.12
103(2)a	Bridge Excavation	420,080.15	20,766.48	-	440,846.62
104(1)a	Embankment from Roadway Excavation	160,837.37	4,246.62	-	165,083.99
PART D - SUBBASE AND BASE COURSE					
200(1)	Aggregate Subbase Course, 0.30m. Thick	41,016.56	1,096.42	261,941.39	304,054.37
PART E - SURFACE COURSE					
311(1)e1	Portland Cement Concrete Pavement (Unreinforced) 0.28 mm. thick	154,494.56	10,414.78	1,097,630.11	1,262,539.46
PART F - BRIDGE CONSTRUCTION					
400(17)e	Concrete Piles cast in Drilled Holes (1.20 m dia.)	2,417,450.31	83,968.35	4,714,711.57	7,216,130.23
400(17)h	Concrete Piles cast in Drilled Holes (1.50 m dia.)	8,122,292.29	325,424.00	14,834,703.69	23,282,419.98
400(23)e2	Permanent Casing (1.20m Diam.)	328,976.82	33,286.20	2,432,632.20	2,794,895.22
400(23)h2	Permanent Casing (1.50m Diam.)	986,930.46	99,858.60	7,271,288.56	8,358,077.62
400(26)a	Pile Integrity Test (Crosshole-Sonic)	120,166.73	11,872.96	1,762,729.32	1,894,769.01
400(27)	High Strain Dynamic Test (P.D.A.)	189,997.33	2,867.28	156,788.79	349,653.40
401(1)a1	Metal Railing	928,562.38	318,397.69	1,137,893.04	2,384,853.12
404(1)a	Reinforcing Steel Bar, (Grade 40)	81,571.54	45,118.90	677,090.77	803,781.21
404(1)b	Reinforcing Steel Bar, (Grade 60)	3,348,818.32	1,408,431.64	25,016,260.36	29,773,510.33
405(1)b2	Structural Concrete, 27.58 Mpa	2,574,827.18	4,059,850.45	22,752,996.88	29,387,674.51
406(1)g10	Prestressed Structural Concrete Members, Type V (35.0 m)	28,854,496.60	4,089,050.33	30,521,025.05	63,464,571.99
406(1)h1	Prestressed Structural Concrete Members, Type VI (33.0 m)	805,305.85	215,504.22	1,254,106.11	2,274,916.18
406(1)h2	Prestressed Structural Concrete Members, Type VI (34.0 m)	805,305.85	215,504.22	1,274,391.30	2,295,201.37
406(1)h3	Prestressed Structural Concrete Members, Type VI (35.0 m)	805,305.85	215,504.22	1,294,768.00	2,315,578.06
406(1)h4	Prestressed Structural Concrete Members, Type VI (36.0 m)	805,305.85	215,504.22	1,315,053.19	2,335,863.25
407(8)	Lean Concrete	11,426.64	13,542.98	141,096.63	166,066.25
412(1)	Elastomeric Bearing Pads	12,107.48	18,149.60	4,481,814.96	4,512,072.04
413(3)b	Premoulded Expansion Joint Filler with Sealant	4,795.15	7,702.95	3,317.07	15,815.16
413(7)a1	Expansion Dam for Bridges (Steel)	798,535.68	159,736.80	277,567.43	1,235,839.91
414(1)	Forms and Falseworks	15,367.92	153,679.20	2,000,000.00	2,169,047.12
TOTAL		56,404,332.44	13,562,797.34	125,896,384.03	195,863,513.81

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 413(7)a1 Expansion Dam for Bridges (Steel)

Unit of Measurement : set

Output per hour : - set./hr.

Quantity : 4.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	30.00	611.92	18,357.60
b. Skilled Laborer	6	30.00	443.20	79,776.00
c. Laborer	6	30.00	342.24	61,603.20
Sub-total for A				159,736.80
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (41-45 MT)	1	30.00	20,848.00	625,440.00
b. Welding Machine (Electric Driven)	2	22.50	3,128.00	140,760.00
c. Cutting Outfit	2	22.50	363.60	16,362.00
Minor Tools (10% of Labor)				15,973.68
Sub-total for B				798,535.68
C. Total (A + B)				958,272.48
D. Output / day - Kg./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Structural Steel - MS Plate	3,596.87	kg.	47.00	169,052.89
b. Structural Steel - Angular Bar	1,786.03	kg.	48.00	85,729.44
c. 20mm Plain (Rod) Bar	101.74	kg.	40.00	4,069.60
d. Welding Rod	3.00	kg.	166.00	498.00
e. Oxy/Acetylene	2.00	set	2,500.00	5,000.00
Miscellaneous (5% of Materials)				13,217.50
Sub-total for E				277,567.43
F. Direct Unit Cost (C + E)				1,235,839.91
G. Overhead Contingencies & Miscellaneous (OCM)		8%		98,867.19
H. Contractors Profit (CP)		8%		98,867.19
I. Value Added Tax (VAT)		5%		71,678.71
J. Total Unit Cost				376,313.25

A

DETAILED UNIT PRICE ANALYSIS

Name of Project : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : A.1.1(3) Construction of Field Office for the Engineer, (7.00m x 9.00m)

Unit of Measurement : l.s.

Output per Hour : 1.00

Quantity : 1.00

Description		No. of Persons	No. of Days	Rate/Day	Amount
A.	Labor				
	a. Construction Foreman	1	24.00	611.92	14,686.08
	c. Skilled	3	24.00	443.20	31,910.40
	d. Laborer	5	24.00	342.24	41,068.80
Sub-total for A					87,665.28
Name and Capacity		No. of Units	No. of Days	Rate/Day	Amount
B.	Equipment, (2014 Acel Rates)				
	a. Bagger Mixer	1	12.00	1,376.00	16,512.00
	b. Water Truck (16000L)	1	1.00	8,520.00	8,520.00
	Minor Tools (10% of Labor)				8,766.53
Sub-total for B					33,798.53
C. Total (A + B)					121,463.81
D. Output / day - Sq.m./day					
Name and Specification of Materials		No. of Units	Unit	Unit Cost	Amount
E.	Materials				
	I. Earthworks (Excavation, Embankment, Bedding)				
	a. Gravel Bedding G-1	5.00	cu.m.	1,100.00	5,500.00
	b. Selected Fill	6.00	cu.m.	462.00	2,772.00
	c. Soil Poisoning	1.00	lit.	1,183.00	1,183.00
	II. Concrete Works (Footing, Column, Beams)				
	Slab on Grade)				
	a. Portland Cement	60.00	bag	282.69	16,961.50
	b. Crushed Gravel G-1"	10.00	cu.m.	1,100.00	11,000.00
	c. Washed Sand	4.00	cu.m.	1,300.00	5,200.00
	III. Reinforcing Bars (Footing Columns, Beams)				
	Slab on Grade)				
	a. Deformed Round Bar, Grade 40	530.00	kg.	40.00	21,200.00
	b. No. 16 G.I. Tie Wire	12.00	kg.	80.00	960.00
	IV. Formworks (Columns & Beams)				
	a. Coco Lumber	240.00	bd.ft.	15.00	3,600.00
	b. Ordinary Plywood, 1/4"x4'x8'	10.00	pc.	395.00	3,950.00
	c. CWN, Assorted	5.00	kg.	80.00	400.00
	V. Masonry Works (Masonry Wall & Plastering)				
	a. CHB 6" Thk.	800.00	pc.	25.00	20,000.00
	b. Portland Cement	65.00	bag	282.69	18,374.96
	c. Washed Sand	7.00	cu.m.	1,300.00	9,100.00
	d. 10mm dia. x6m RSB	145.00	kg.	39.00	5,655.00
	e. No. 16 G.I. Tie Wire	1.53	kg.	80.00	122.40
	VI. Doors And Window				
	D-1, Hollow Core Flush Type Swing Door w/ Marine Plywood				
	a. Facing and Fixed Glass Transom complete with accessories, 0.90m.x2.10m.	2.00	set	1,814.40	3,628.80
	W-1, Jalousie Window with Clear Glass Blades on Standard				
	b. Aluminum Casing and Fixed Clear Glass Transom on Wooden Jamb complete with accessories, 1.40mx1.20m	2.00	set	1,273.44	2,546.88
	W-2, Jalousie Window with Clear Glass Blades on Standard				
	c. Aluminum Casing and Fixed Clear Glass Transom on Wooden Jamb complete with accessories, 2.80mx1.20m	2.00	set	2,546.88	5,093.76

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Name and Specification of Materials	No. of Units	Unit	Unit Cost	Amount
VII. Steel Works				
a. 65 x 65 x 6mm. L	800.00	kg.	48.00	38,400.00
b. 50 x 50 x 6mm. L	380.00	kg.	48.00	18,240.00
c. 50 x 50 x 4mm. L	230.00	kg.	48.00	11,040.00
d. Purlins C- 150 x 50 x 3mm.	31.79	kg.	48.00	1,525.92
e. 16mm. Dia. Cross Bracing	58.34	kg.	39.00	2,275.26
f. 16mm. Dia. Turn Buckle	24.00	pc.	150.00	3,600.00
g. 12mm. Thk. Base Plate	42.38	kg.	50.00	2,119.00
h. 10mm. Thk. Batten Plate	29.08	kg.	50.00	1,454.00
i. 12mm. Dia. Sag Rod	13.12	kg.	39.00	511.68
j. 20mm. Dia x 350mm. Anchor Bolts	12.00	pc.	99.25	1,190.94
k. Welding Rod	20.00	kg.	135.00	2,700.00
l. Primer , Zinc Chromate	2.00	gal.	791.00	1,582.00
VIII Roofing Works				
a. Pre-Painted G.I. Roofing Sheet Long Span, Ga.26	80.00	sq.m.	420.00	33,600.00
b. Pre-Painted Ridge Roll Ga.24, 0.60m. Width	8.00	ln.m.	190.00	1,520.00
c. Pre-Painted Flashing, Ga.24	9.00	ln.m.	190.00	1,710.00
d. Teckscrew 1-1/2"	920.00	pc.	1.00	920.00
e. Roof Sealant	1.00	lit.	435.00	435.00
IX Carpentry Works				
a. Rough Lumber, Sun Dried Tanguile	675.00	bd.ft.	40.00	27,000.00
b. Plywood, Ordinary 1/4" x 4"x 8"	30.00	pc.	533.00	15,990.00
c. Finishing Nails	3.00	kg.	100.00	300.00
d. Common Wire Nails	6.00	kg.	80.00	480.00
X Electrical Works				
a. 2 x 40w Flourescent Lighting Fixture	5.00	set	1,260.00	6,300.00
b. Porcelain Ceiling Outlet w/ Female Socket	1.00	pc.	60.00	60.00
c. Duplex Convenience Outlet	4.00	pc.	170.00	680.00
d. Two Gang Switch	2.00	pc.	132.00	264.00
e. 3.5mm2 THW	2.00	roll	1,200.00	2,400.00
f. 8.0mm2 THW	20.00	m.	38.00	760.00
g. 19mm. dia. PVC Pipe	24.00	pc.	96.00	2,304.00
h. 19mm. dia. PVC Coupling	15.00	pc.	9.00	135.00
i. 19mm. dia. PVC Elbow	20.00	pc.	9.00	180.00
j. 19mm. dia. PVC Clamp	50.00	pc.	15.00	750.00
k. 25mm. dia. RSC Pipe	3.00	pc.	766.00	2,298.00
l. 25mm. dia. RSC Coupling	2.00	pc.	23.00	46.00
m. 25mm. dia. RSC Elbow	2.00	pc.	21.00	42.00
n. 25mm. dia. RSC Clamp	9.00	pc.	25.00	225.00
o. 25mm. dia. Service Entrance Cap	1.00	pc.	201.00	201.00
p. Wire Holder	1.00	pc.	90.00	90.00
q. Utility Box	6.00	pc.	32.00	192.00
r. Octagonal Box	7.00	pc.	34.00	238.00
s. Electrical Tape (Big)	6.00	pc.	31.00	186.00
t. Panel Board (Side Main w/ Branches)	1.00	set	1,627.00	1,627.00
XI Painting Works				
a. Latex, Flat	4.00	gal.	605.00	2,420.00
b. Latex, Semi Gloss	4.00	gal.	605.00	2,420.00
c. Neutralizer	10.00	ltr.	120.00	1,200.00
d. Acri Color	2.00	qrt.	180.00	360.00
e. Masonry Putty	1.00	kg.	148.00	148.00
f. Enamel, Flat Wall	3.00	gal.	870.00	2,610.00
g. Enamel, Semi Gloss	3.00	gal.	870.00	2,610.00
h. Paint Thinner	2.00	gal.	322.00	644.00
i. Glazing Putty	1.00	gal.	150.00	150.00
j. Paint Brush	4.00	pc.	85.00	340.00
k. Paint Roller and Tray	2.00	pc.	75.00	150.00
l. Laquer Thinner	1.00	gal.	450.00	450.00

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Name and Specification of Materials		No. of Units	Unit	Unit Cost	Amount
XII Plumbing Works					
a.	Water Closet (Including Fittings and Accessories)	1.00	set	8,820.00	8,820.00
b.	Lavatory (Including Fittings and Accessories)	1.00	set	4,390.00	4,390.00
c.	1/2" G.I. Pipe S-40	2.00	pc.	400.00	800.00
d.	1/2" Water Faucet (Bronze)	2.00	pc.	315.00	630.00
e.	1/2" Assorted Connector	6.00	pc.	35.00	210.00
f.	4" PVC series 1000	1.00	pc.	735.00	735.00
g.	2" PVC series 1000	2.00	pc.	346.00	692.00
h.	4" PVC Assorted Connector	6.00	pc.	73.00	438.00
i.	2" PVC Assorted Connector	8.00	pc.	50.00	400.00
Sub-total for E					353,437.09
F.	Direct Cost (C + E)				474,900.90
G.	Overhead Contigencies and Miscellaneous (OCM)		8%		37,992.07
H.	Contractor's profit (CP)		8%		37,992.07
I.	Value Added Tax (VAT)		5%		27,544.25
J.	Total Unit Cost				578,429.30

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : A.1.1(11) Provision of Furnitures/Fixtures, Equipment and Appliances for the
Unit of Measurement : l.s. Field Office for the Field Engineers

Output per hour : -

Quantity : 1.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A					
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost				
Sub-total for B					
C. Total (A + B)					
D. Output / day					
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
	Office Equipment/Facilities & Supplies				
	a. Office Table, Executive Type w/ chair	1.00	unit	7,000.00	7,000.00
	b. 1/2" Wooden Office Table	1.00	each	2,500.00	2,500.00
	c. Drawing Table	1.00	unit	5,000.00	5,000.00
	d. Electric Desk Fan	2.00	unit	1,800.00	3,600.00
	e. Folding Beds, Good Quality	2.00	each	2,700.00	5,400.00
	f. 6" Sleeping Bed w/pillows and Blanket	2.00	each	5,000.00	10,000.00
	g. Double Burner Gas Stove (Gasul)	1.00	unit	3,700.00	3,700.00
	h. 10 Cups Rice Cooker	1.00	unit	2,500.00	2,500.00
	i. Aluminum Cookware	1.00	set	3,500.00	3,500.00
	j. Plate, Glass, Spoon and Fork	1.00	doz.	2,000.00	2,000.00
	k. 6 Seater Dining Table	1.00	each	2,800.00	2,800.00
	l. Monoblock Backrest Chair	1.00	doz.	2,500.00	2,500.00
	m. Plastic Pail & Basin	2.00	pc.	500.00	1,000.00
	n. White Board	1.00	unit	7,000.00	7,000.00
	o. Bond Paper (Long)	15.00	ream	300.00	4,500.00
	p. Bond Paper (Short)	15.00	ream	270.00	4,050.00
	q. Yellow Pad	4.00	pad	35.00	140.00
	r. White Board Marker (Assorted colors)	8.00	pc.	75.00	600.00
	s. Sign Pen (Assorted Colors)	2.00	doz.	800.00	1,600.00
	t. Ball Pen	2.00	box	180.00	360.00
	u. Mechanical Pencil	3.00	unit	350.00	1,050.00
	v. Pencil Lead, No.5	3.00	box	145.00	435.00
	w. Puncher	2.00	unit	250.00	500.00
	x. Staple Padw/wire	2.00	unit	275.00	550.00
	y. Cutter Blade	2.00	box	238.50	477.00
	z. Scotch Tape	6.00	roll	48.00	288.00
	aa. Brown Envelop	6.00	doz.	125.00	750.00
	bb. Folder, long	5.00	doz.	85.00	425.00
	cc. Folder, short	3.00	doz.	70.00	210.00
	dd. Data File Folder	6.00	pc.	85.00	510.00
	Lighting/Water fixtures:				
	a. Electric Bill	12.00	mo.	2,500.00	30,000.00
	b. Water Bill	12.00	mo.	1,500.00	18,000.00
	c. LPG Gasul (11 Kg.)	12.00	mo.	900.00	10,800.00
Sub-total for E					133,745.00
F. Direct Unit Cost (C + E)					133,745.00
G. Overhead Contingencies & Miscellaneous (OCM)			8%	-	
H. Contractors Profit (CP)			8%	10,699.60	
I. Value Added Tax (VAT)			5%	7,222.23	
J. Total Unit Cost					151,666.83

A

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover including ROW, Zamboanga City

Item No./Description : A.1.2(5) Operation and Maintenance of 4x4 Pick Up Type Service Vehicle

Unit of Measurement : mos. for the Engineer

Output per hour :

Quantity : 12.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Service Driver	1	360.00	443.20	159,552.00
Sub-total for A					159,552.00
Name and Capacity		No. of Equipment	No. of Mos.	Monthly Rate	Amount
B.	Equipment Cost				-
Sub-total for B					-
C.	Total (A + B)				159,552.00
D. Output / day					
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
	a. Fuel (20 Liters per Day)	7,200.00	lit.	41.00	295,200.00
	b. Engine Oil Lubricants, Greasing (20 % of Fuel)	1.00	l.s.	59,040.00	59,040.00
	c. Tires	5.00	each	9,500.00	47,500.00
	d. Spare Parts	1.00	l.s.	40,000.00	40,000.00
Sub-total for E					441,740.00
F. Direct Unit Cost (C + E)					601,292.00
G. Overhead Contingencies & Miscellaneous (OCM)			8%	-	
H. Contractors Profit (CP)			8%	-	
I. Value Added Tax (VAT)			5%	30,064.60	
J. Total Unit Cost					52,613.05

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover including ROW, Zamboanga City

Item No./Description : B.4(1) Construction Survey and Staking

Unit of Measurement : km

Output per hour : 0.04

Quantity : 0.44

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
(For Field Works) Output: 0.30 km/day				
a. Geodetic Engineer	2	0.73	906.36	1,322.38
b. Skilled Laborer	2	0.73	443.20	646.63
c. Laborer	2	0.73	342.24	499.33
(For Office Works) Output: 0.10 km/day				
a. Geodetic Engineer	2	2.19	906.36	3,967.14
b. Skilled Laborer	2	2.19	443.20	1,939.89
Sub-total for A				8,375.36
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Total Station w/ complete accessories	1	0.73	800.00	583.60
Minor Tools (10% of Labor)				837.54
Sub-total for B				1,421.14
Total (A + B)				9,796.50
C.				
D. Output / day	0.32 km/day			
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Standard Stake Plan (800mm x 910mm)	63.00	pcs	200.00	12,600.00
b. Blue Printing	315.00	pcs	34.00	10,710.00
Miscellaneous (5% of Materials)				1,165.50
Sub-total for E				24,475.50
F. Direct Unit Cost (C + E)				34,272.00
G. Overhead Contingencies & Miscellaneous (OCM)	8%			2,741.76
H. Contractors Profit (CP)	8%			2,741.76
I. Value Added Tax (VAT)	5%			1,987.78
J. Total Unit Cost				95,369.64

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : B.5 Project Billboard/Signboard

Unit of Measurement : each

Output per hour :

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	2.0	611.92	1,223.84
b. Skilled Laborer	1	2.0	443.20	886.40
c. Laborer	2	2.0	342.24	1,368.96
Sub-total for A				3,479.20
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
Sub-total for B				-
C. Total (A + B)				3,479.20
D. Output / day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. 1/4" thick, 4' x 8' Marine Plywood	2.00	pc.	445.00	890.00
b. Tarpaulin (4' x 8')	2.00	pc.	1,200.00	2,400.00
c. Assorted Sizes Lumber	150.00	bd.ft.	40.00	6,000.00
d. C.W. Nails, Assorted Sizes	2.00	kg.	70.00	140.00
Sub-total for E				9,430.00
F. Direct Unit Cost (C + E)				12,909.20
G. Overhead Contingencies & Miscellaneous (OCM)		8%		1,032.74
H. Contractors Profit (CP)		8%		1,032.74
I. Value Added Tax (VAT)		5%		748.73
J. Total Unit Cost				7,861.70

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : B.7 Occupational Safety and Health Program
Unit of Measurement : l.s.
Output per hour :
Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Safety Practitioner	1	90.00	611.92	55,072.80
b. First Aider	1	360.00	443.20	159,552.00
Sub-total for A				214,624.80
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost				
Sub-total for B				-
C. Total (A + B)				214,624.80
D. Output / day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Pairs, Rubber Boots Men, Long with Steel Toe, Black	50.00	pair	400.00	20,000.00
b. Pairs, Working Gloves (Leather Materials)	50.00	pair	175.00	8,750.00
c. Pcs., Rain Coats (Rainforced, Hip Length Small, Medium & Large)	50.00	pc.	150.00	7,500.00
d. Hard Hat	50.00	pc.	250.00	12,500.00
e. Medical Supplies	1.00	set	5,000.00	5,000.00
Sub-total for E				53,750.00
F. Direct Unit Cost (C + E)				268,374.80
G. Overhead Contingencies & Miscellaneous (OCM)		8%		21,469.98
H. Contractors Profit (CP)		8%		21,469.98
I. Value Added Tax (VAT)		5%		15,565.74
J. Total Unit Cost				326,880.51

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover including ROW, Zamboanga City

Item No./Description : B.8(2) Traffic Management

Unit of Measurement : l.s.

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	360.0	611.92	220,291.20
b. Laborer	8	360.0	342.24	985,651.20
Sub-total for A				1,205,942.40
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
Sub-total for B				-
C. Total (A + B)				1,205,942.40
D. Output / day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Warning Signs and Barricades	1.00	l.s.	200,000.00	200,000.00
Sub-total for E				200,000.00
F. Direct Unit Cost (C + E)				1,405,942.40
G. Overhead Contingencies & Miscellaneous (OCM)		8%		-
H. Contractors Profit (CP)		8%		112,475.39
I. Value Added Tax (VAT)		5%		75,920.89
J. Total Unit Cost				1,594,338.68

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : B.9 Mobilization & Demobilization

Unit of Measurement : l.s.

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				-
Sub-total for A				-
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Transit Mixer (5 cu.m.)	2	6.00	10,544.00	126,528.00
b. Payloader (1.50 cu.m.), LX80-2C	2	6.00	13,864.00	166,368.00
c. Dump Truck (10 cu.m.)	2	6.00	11,360.00	136,320.00
d. Bulldozer	1	6.00	27,032.00	162,192.00
e. Drilling Rig	1	3.00	101,096.00	303,288.00
f. Backhoe	2	3.00	12,296.00	73,776.00
g. Vibratory Roller	1	3.00	17,384.00	52,152.00
h. Road Grader	1	3.00	14,768.00	44,304.00
i. Water Truck	2	6.00	19,600.00	235,200.00
j. Cargo Truck (10T)	2	6.00	6,264.00	75,168.00
k. Conc. Mixer (1 bagger)	2	6.00	1,376.00	16,512.00
l. Crawler Crane	2	6.00	17,208.00	206,496.00
Sub-total for B				1,598,304.00
C. Total (A + B)				1,598,304.00
D. Output / day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				-
Sub-total for E				-
F. Direct Unit Cost (C + E)				1,598,304.00
G. Overhead Contingencies & Miscellaneous (OCM)		8%		-
H. Contractors Profit (CP)		3%		-
I. Value Added Tax (VAT)		5%		79,915.20
J. Total Unit Cost				1,678,219.20

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 101(1) Removal of Structures and Obstructions

Unit of Measurement : L.S.

Output per hour : -

Quantity : 1.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	30.00	611.92	18,357.60
	b. Skilled Laborer	4	30.00	443.20	53,184.00
	c. Laborer	8	30.00	342.24	82,137.60
Sub-total for A					153,679.20
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	30.00	12,296.00	368,880.00
	b Backhoe w/ Breaker (0.80 cu.m.)	1	15.00	15,984.80	239,772.00
	c. Air Compressor (356-450 cfm)	2	30.00	7,720.00	463,200.00
	d. Jackhammer	4	30.00	1,200.00	144,000.00
	e. Payloader (1.50 cu.m.)	1	15.00	13,864.00	207,960.00
	f. Dumptruck (10 cu.m.)	1	15.00	11,360.00	170,400.00
	g. Truck Mounted Crane (31-35 mt)	1	15.00	14,888.00	223,320.00
	h. Service Truck/Cargo Truck (2-5 mt)	1	15.00	6,264.00	93,960.00
	i. Welding Machine (300 A), Gas/Diesel Driven	1	15.00	2,968.00	44,520.00
	j. Cutting Outfit	1	15.00	363.60	5,454.00
	Minor Tools (10% of Labor)				15,367.92
Sub-total for B					1,976,833.92
C. Total (A + B)					2,130,513.12
D. Output / day - cu.m./day					
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
Sub-total for E					-
F. Direct Unit Cost (C + E)					2,130,513.12
G. Overhead-Contingencies & Miscellaneous (OCm)			6%		170,441.05
H. Contractors Profit (CP)			8%		170,441.05
I. Value Added Tax (VAT)			5%		123,569.76
J. Total Unit Cost					2,594,964.98

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 103(2)a Bridge Excavation

Unit of Measurement : cu.m.

Output per hour : 20.00 cu.m./hr.

Quantity : 1,910.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	11.94	611.92	7,304.80
	b. Skilled Laborer	1	11.94	443.20	5,290.70
	c. Laborer	2	11.94	342.24	8,170.98
Sub-total for A					20,766.48
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	11.94	12,296.00	146,783.50
	b. Dumptruck (10 cu.m.)	2	11.94	11,360.00	271,220.00
	Minor Tools (10% of Labor)				2,076.65
Sub-total for B					420,080.15
C. Total (A + B)					440,846.62
D. Output / day		160.00 cu.m./day			
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
Sub-total for E					-
F. Direct Unit Cost (C + E)					440,846.62
G. Overhead Contingencies & Miscellaneous (OCM)			8%		35,267.73
H. Contractors Profit (CP)			8%		35,267.73
I. Value Added Tax (VAT)			5%		25,569.10
J. Total Unit Cost					281.13

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 104(1)a Embankment from Roadway Excavation

Unit of Measurement : cu.m.

Output per hour : 50.00 cu.m./hr.

Quantity : 716.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work:				
	a. Construction Foreman	1	1.49	611.92	909.13
	b. Laborer	2	1.49	342.24	1,016.93
	For Spreading and Compaction:				
	a. Construction Foreman	1	1.79	611.92	1,095.34
	b. Laborer	2	1.79	342.24	1,225.22
Sub-total for A					4,246.62
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost (2014 ACEL Rates)				
	For Excavation Work:				
	a. Bulldozer (155Hp), D65A-8	1	1.49	27,032.00	40,161.44
	b. Payloader (1.50 cu.m.)	1	1.49	13,864.00	20,597.74
	c. Dump Truck (10 cu.m.)	2	1.49	11,360.00	33,755.10
	For Spreading and Compaction:				
	a. Motorized Road Grader, G710A	1	1.79	17,384.00	31,117.36
	b. Vibratory Roller (10 m.t.), SP56	1	1.79	14,768.00	26,434.72
	c. Water Truck	1	0.45	19,600.00	8,771.00
Sub-total for B					160,837.37
C. Total (A + B)					165,083.99
D. Output / day		400.00 cu.m./day			
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
Sub-total for E					-
F. Direct Unit Cost (C + E)					165,083.99
G. Overhead Contingencies & Miscellaneous (OCM)			8%		13,206.72
H. Contractors Profit (CP)			8%		13,206.72
I. Value Added Tax (VAT)			5%		9,574.87
J. Total Unit Cost					280.83

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MICLL Highway and Veterans Avenue Flyover including ROW, Zamboanga City

Item No./Description : 200(1) Aggregate Subbase Course, 0.30m. Thick

Unit of Measurement : cu.m.

Output per hour : 50.00 cu.m./hr.

Quantity : 221.40

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	0.55	611.92	338.70
	b. Laborer	4	0.55	342.24	757.72
Sub-total for A					1,096.42
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost (2014 ACEL Rates)				
	a. Motorized Road Grader, G710A	2	0.55	17,384.00	19,244.09
	b. Vibratory Roller (10 m.t.), SP56	2	0.55	14,768.00	16,348.18
	c. Water Truck	2	0.14	19,600.00	5,424.30
Sub-total for B					41,016.56
C. Total (A + B)					42,112.98
D. Output / day		400.00 cu.m./day			
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
	a. Aggregate Subbase Course (with shrinkage of 15%)	254.61	cu.m.	1,028.79	261,941.39
Sub-total for E					261,941.39
F. Direct Unit Cost (C + E)					304,054.37
G. Overhead Contingencies & Miscellaneous (OCM)			8%		24,324.35
H. Contractors Profit (CP)			8%		24,324.35
I. Value Added Tax (VAT)			5%		17,635.15
J. Total Unit Cost					1,672.71

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Carnins/MiCLL Highway and Veterans Avenue Flyover including ROW, Zamboanga City

Item No./Description : 311(1)e1 Portland Cement Concrete Pavement (Unreinforced) 0.28 mm. thick

Unit of Measurement : sq.m.

Output per hour : 57.50 sq.m./hr.

Quantity : 738.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Construction Foreman	1	1.60	611.92	981.73
	b. Skilled Laborer	4	1.60	443.20	2,844.19
	c. Laborer	12	1.60	342.24	6,588.86
Sub-total for A					10,414.78
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment Cost (2014 ACEL Rates)				
	a. Transit Mixer (5 cu.m.)	4	1.60	10,544.00	67,664.97
	b. Concrete Vibrator	2	1.60	730.00	2,342.35
	c. Concrete Batch Plant (30 m ³)	1	1.60	14,076.00	22,582.80
	d. Payloader (1.50 m ³), LX80-2c	1	1.60	13,864.00	22,242.68
	e. Concrete Screeder (5.5 hp)	1	1.60	4,360.00	6,994.96
	f. Water Truck/Pump (16000 L)	1	1.60	19,600.00	31,445.22
	g. Concrete Saw (7.5 hp), 14 " Blade dia.	1	1.60	261.04	418.80
	h. Bar Cutter, Single Phase	1	0.16	1,758.00	282.04
	Minor Tools (5% of Labor Cost)				520.74
Sub-total for B					154,494.56
C. Total (A + B)					164,909.34
D. Output / day		460.00 cu.m./day			
Name and Specification		Quantity	Unit	Unit Cost	Total
E.	Materials				
	a. Reinforcing Steel Bars (Grade 60)	369.00	kg.	44.33	16,357.69
	b. Curing Compound	214.02	lit.	45.00	9,630.90
	c. Asphalt Sealant	125.46	lit.	71.00	8,907.66
	d. Steel Forms (Rental)	339.48	l.m.	50.00	16,974.00
	e. Sand	113.65	cu.m.	1,648.79	187,388.80
	f. Gravel	206.64	cu.m.	1,448.79	299,378.92
	g. Cement	1,963.08	bags	282.69	554,946.29
	h. Concrete Saw (diamond blade 14")	0.11	pcs.	8,000.00	885.60
	i. Pipe Sleeve, 2" Ø	5.76	ln.m.	346.00	1,991.71
	j. Grease/Tar	5.76	lit.	203.00	1,168.55
Sub-total for E					1,097,630.11
F. Direct Unit Cost (C + E)					1,262,539.46
G. Overhead Contingencies & Miscellaneous (OCM)			8%		101,003.16
H. Contractors Profit (CP)			8%		101,003.16
I. Value Added Tax (VAT)			5%		73,227.29
J. Total Unit Cost					2,083.70

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 400(17)e Concrete Piles cast in Drilled Holes (1.20 m dia.)

Unit of Measurement : In.m.

Output per hour : 1.09 In.m./hr.

Quantity : 150.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	17.20	611.92	10,526.15
b. Skilled Laborer	5	17.20	443.20	38,119.27
c. Laborer	6	17.20	342.24	35,322.94
Fabrication of Cage Bar				
a. Skilled Laborer	8	13.76	443.20	48,792.66
b. Laborer	16	13.76	342.24	75,355.60
Sub-total for A				83,968.35
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Drilling Rig (300 hp)	1	7.74	101,096.00	782,566.51
b. Crawler Crane (41-45 mt)	1	17.20	17,208.00	296,009.17
c. Crawler Crane (21-25 mt)	1	17.20	12,176.00	209,449.54
d. Dump Truck (12 yd ³)	1	17.20	11,360.00	195,412.84
e. Payloader (1.50 m ³), LX80-2c	1	17.20	13,864.00	238,486.24
f. Generator Set (300 kW)	1	17.20	6,982.96	120,119.72
g. Bentonite Bin	1	10.32	2,240.00	23,119.27
h. Bentonite Mixer	1	10.32	1,384.00	14,284.40
i. Water Pump, 100 mm suction Φ (7.5 hp)	1	14.62	987.04	14,432.06
j. Water Truck/Pump (16000 L)	1	14.62	19,600.00	286,582.57
k. Bar Cutter	1	12.90	1,758.00	22,680.62
l. Bar Bender	1	12.90	2,812.00	36,278.67
m. Welding Machine (500 A), Electric Driven	1	14.62	3,128.00	45,736.24
n. Cutting Outfit	1	14.62	363.60	5,316.40
o. Tremie Pipe Set	1	4.30	2,560.00	11,009.17
p. SPT & Desanding Machine	1	6.02	4,472.00	26,924.31
q. Portable Breaker, BHF30s	2	1.03	1,035.04	2,136.55
r. Air Compressor, Portable (126-160 cfm)	1	1.03	3,600.00	3,715.60
s. Lighting System/Tower Lights	1	17.20	4,348.00	74,793.58
Minor Tools (10% of Labor)				8,396.83
Sub-total for B				2,417,450.31
C. Total (A + B)				2,501,418.66
D. Output / day 8.72 In.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concete, $f_c' = 28$ Mpa	187.50	m ³	4,540.00	851,250.00
b. Reinforcing Steel Bar	79,695.00	kgs.	44.33	3,532,861.07
c. Tie Wire (2% of RSB)	1,593.90	kgs.	92.00	146,638.80
a. Oxygen/Acetylene (1 set/5000 kg of RSB)	16.00	sets	2,500.00	40,000.00
b. Welding Rod (1 kg/2000 kg of RSB)	40.00	kgs.	166.00	6,640.00
Miscellaneous (3 % of Material Cost, Bentonite and etc.)				137,321.70
Sub-total for E				4,714,711.57
F. Direct Unit Cost (C + E)				7,216,130.23
G. Overhead Contingencies & Miscellaneous (OCM)		8%	577,290.42	
H. Contractors Profit (CP)		8%	577,290.42	
I. Value Added Tax (VAT)		5%	418,535.55	
J. Total Unit Cost				58,594.98

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : 400(17)h Concrete Piles cast in Drilled Holes (1.50 m dia.)
Unit of Measurement : ln.m.
Output per hour : 0.81 ln.m./hr.
Quantity : 432.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	66.67	611.92	40,794.67
b. Skilled Laborer	5	66.67	443.20	147,733.33
c. Laborer	6	66.67	342.24	136,896.00
Fabrication of Cage Bar				
a. Skilled Laborer	7	53.33	443.20	165,461.33
b. Laborer	14	53.33	342.24	255,537.20
Sub-total for A				325,424.00
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Drilling Rig (300 hp)	1	33.33	101,096.00	3,369,866.67
b. Crawler Crane (41-45 mt)	1	66.67	17,208.00	1,147,200.00
c. Crawler Crane (21-25 mt)	1	66.67	12,176.00	811,733.33
d. Dump Truck (12 yd ³)	1	66.67	11,360.00	757,333.33
e. Payloader (1.50 m ³), LX80-2c	1	66.67	13,864.00	924,266.67
f. Generator Set (300 kW)	1	66.67	6,982.96	465,530.67
g. Bentonite Bin	1	12.04	2,240.00	26,972.48
h. Bentonite Mixer	1	12.04	1,384.00	16,665.14
i. Water Pump, 100 mm suction Φ (7.5 hp)	1	16.51	987.04	16,299.74
j. Water Truck/Pump (16000 L)	1	16.51	19,600.00	323,669.72
k. Bar Cutter	1	12.90	1,758.00	22,680.62
l. Bar Bender	1	12.90	2,812.00	36,278.67
m. Welding Machine (500 A), Electric Driven	1	14.79	3,128.00	46,274.31
n. Cutting Outfit	1	14.79	363.60	5,378.94
o. Tremie Pipe Set	1	5.16	2,560.00	13,211.01
p. SPT & Desanding Machine	1	6.19	4,472.00	27,693.58
q. Portable Breaker, BHF30s	2	0.69	1,035.04	1,424.37
r. Air Compressor, Portable (126-160 cfm)	1	0.69	3,600.00	2,477.06
s. Lighting System/Tower Lights	1	17.20	4,348.00	74,793.58
Minor Tools (10% of Labor)				32,542.40
Sub-total for B				8,122,292.29
Total (A + B)				8,447,716.29
D. Output / day 6.48 ln.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, $f_c' = 28$ Mpa	842.40	m ³	4,540.00	3,824,496.00
b. Reinforcing Steel Bar	226,270.80	kgs.	44.33	10,030,532.67
c. Tie Wire (2% of RSB)	4,525.42	kgs.	92.00	416,338.27
a. Oxygen/Acetylene (1 set/5000 kg of RSB)	45.00	sets	2,500.00	112,500.00
b. Welding Rod (1 kg/2000 kg of RSB)	113.00	kgs.	166.00	18,758.00
Miscellaneous (3 % of Material Cost, Bentonite and etc.)				432,078.75
Sub-total for E				14,834,703.69
Direct Unit Cost (C + E)				23,282,419.98
G. Overhead Contingencies & Miscellaneous (OCM)		8%		1,862,593.60
H. Contractors Profit (CP)		8%		1,862,593.60
I. Value Added Tax (VAT)		5%		1,350,380.36
J. Total Unit Cost				65,643.49

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 400(23)e2 Permanent Casing (1.20m Diam.)

Unit of Measurement : In.m.

Output per hour : 2.00 In.m./hr.

Quantity : 120.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	7.50	611.92	4,589.40
b. Skilled Laborer	4	7.50	443.20	13,296.00
c. Laborer	6	7.50	342.24	15,400.80
Sub-total for A				33,286.20
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (45T)	1	7.50	20,848.00	156,360.00
b. Vibro Hammer w/ Hydraulic Power Pack	1	4.50	32,944.00	148,248.00
c. Welding Machine (500A), Gas/Diesel Driven	1	4.50	4,312.00	19,404.00
e. Cutting Outfit	1	4.50	363.60	1,636.20
Minor Tools (10% of Labor)				3,328.62
Sub-total for B				328,976.82
C. Total (A + B)				362,263.02
D. Output / day 16.00 In.m./day				
Name and Specification	Quantity	unit	unit Cost	total
E. Materials				
a. Steel Casing, 12mm thk.	123.00	In.m.	19,727.40	2,426,470.20
b. Oxygen/Acetylene	2.00	sets	2,500.00	5,000.00
c. Welding Rod	7.00	kgs.	166.00	1,162.00
Sub-total for E				2,432,632.20
F. Direct Unit Cost (C + E)				2,794,895.22
G. Overhead Contingencies & Miscellaneous (OCM)		8%		223,591.62
H. Contractors Profit (CP)		8%		223,591.62
I. Value Added Tax (VAT)		5%		162,103.92
J. Total Unit Cost				28,368.19

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 400(23)h2 Permanent Casing (1.50m Diam.)

Unit of Measurement : In.m.

Output per hour : 1.60 In.m./hr.

Quantity : 288.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	22.50	611.92	13,768.20
b. Skilled Laborer	4	22.50	443.20	39,888.00
c. Laborer	6	22.50	342.24	46,202.40
Sub-total for A				99,858.60
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (45T)	1	22.50	20,848.00	469,080.00
b. Vibro Hammer w/ Hydraulic Power Pack	1	13.50	32,944.00	444,744.00
c. Welding Machine (500A), Gas/Diesel Driven	1	13.50	4,312.00	58,212.00
e. Cutting Outfit	1	13.50	363.60	4,908.60
Minor Tools (10% of Labor)				9,985.86
Sub-total for B				986,930.46
C. Total (A + B)				1,086,789.06
D. Output / day 12.80 In.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Steel Casing, 12mm thk.	295.20	In.m.	24,610.30	7,264,960.56
b. Oxygen/Acetylene	2.00	sets	2,500.00	5,000.00
c. Welding Rod	8.00	kgs.	166.00	1,328.00
Sub-total for E				7,271,288.56
F. Direct Unit Cost (C + E)				8,358,077.62
G. Overhead Contingencies & Miscellaneous (OCM)		8%		668,646.21
H. Contractors Profit (CP)		8%		668,646.21
I. Value Added Tax (VAT)		5%		484,768.50
J. Total Unit Cost				35,347.70

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : 400(26)a Pile Integrity Test (Crosshole-Sonic)
Unit of Measurement : each
Output per hour : 0.25 ea./hr.
Quantity : 8.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
For Testing				
a. Construction Foreman	1	4.00	611.92	2,447.68
b. Skilled Laborer	1	4.00	443.20	1,772.80
c. Laborer	1	4.00	342.24	1,368.96
Pipe Installation				
a. Skilled Laborer	2	4.00	443.20	3,545.60
b. Laborer	2	4.00	342.24	2,737.92
Sub-total for A				11,872.96
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Pile Integrity Testing (Sonic) and Accessories (includes professional fee of Structural Engineer)	1	1.00	70,000.00	70,000.00
b. Welding Machine	1	16.00	3,128.00	50,048.00
Minor Tools (10% of Labor Cost)				118.73
Sub-total for B				120,166.73
C. Total (A + B)				132,039.69
D. Output / day 2.00 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Black Pipe and Accessories 2" dia. x 6m.	960.00	m.	1,800.00	1,728,000.00
b. Welding Rod	1.00	kgs.	166.00	166.00
Miscellaneous (2% of Materials Cost)				34,563.32
Sub-total for E				1,762,729.32
F. Direct Unit Cost (C + E)				1,894,769.01
G. Overhead Contingencies & Miscellaneous (OCMI)		6%		151,581.52
H. Contractors Profit (CP)		8%		151,581.52
I. Value Added Tax (VAT)		5%		109,896.60
J. Total Unit Cost				288,478.58

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 400(27) High Strain Dynamic Test (P.D.A.)

Unit of Measurement : each

Output per hour : 0.25 ea./hr.

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.00	611.92	611.92
b. Skilled Laborer	2	1.00	443.20	886.40
c. Laborer	4	1.00	342.24	1,368.96
Sub-total for A				2,867.28
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Dynamic Pile Testing (includes professional fee of Structural Engineer)	1	1.00	105,000.00	105,000.00
b. Truck Mounted Crane (45T)	1	1.00	20,848.00	20,848.00
c. Drop Hammer w/ Accessories (20T)	1	1.00	40,000.00	40,000.00
d. Compressor w/ Jackhammer	1	2.00	10,120.00	20,240.00
e. Concrete Vibrator	1	0.60	3,128.00	1,876.80
f. Cutting Outfit	1	0.50	363.60	181.80
g. Welding Machine	1	0.50	3,128.00	1,564.00
Minor Tools (10% of Labor)				286.73
Sub-total for B				189,997.33
Total (A + B)				192,864.61
C.				
D. Output / day	2.00 ea./day			
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Steel Casing, L = 2 x PileΦ, thickness @ 12mm (Abut.)	2.40	m.	19,727.40	47,345.76
b. Steel Casing, L = 2 x PileΦ, thickness @ 12mm (Pier)	3.00	m.	24,610.30	73,830.90
c. Concrete (3000 psi)	5.60	cu.m.	4,550.00	25,480.00
d. Oxygen/Acetylene	1.00	seis	2,500.00	2,500.00
e. Welding Rod	1.00	kgs.	166.00	166.00
Miscellaneous (5% of Materials)				7,466.13
Sub-total for E				156,788.79
F. Direct Unit Cost (C + E)				349,653.40
G. Overhead Contingencies & Miscellaneous (OCM)	8%			27,972.27
H. Contractors Profit (CP)	6%			27,972.27
I. Value Added Tax (VAT)	5%			20,279.90
J. Total Unit Cost				212,938.92

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 401(1)a1 Metal Railing

Unit of Measurement : In.m.

Output per hour : 1.00 In.m./hr.

Quantity : 497.24

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	62.16	611.92	38,033.89
b. Skilled Laborer	4	62.16	443.20	110,188.38
c. Laborer	8	62.16	342.24	170,175.42
Sub-total for A				318,397.69
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (35T)	1	31.08	14,888.00	462,681.82
b. Cutting Outfit	2	62.16	363.60	45,199.12
c. Welding Machine	2	62.16	3,128.00	388,841.68
Minor Tools (10% of Labor)				31,839.77
Sub-total for B				928,562.38
Total (A + B)				1,246,960.07
C.	8.00 In.m./day			
D. Output / day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. 12mm MS Plate	1,546.39	kgs.	47.00	72,680.20
b. 8mm MS Plate	3,617.28	kgs.	47.00	170,012.16
c. 6mm MS Plate	1,131.30	kgs.	47.00	53,171.30
d. 50mmΦ Sch. 40 G.I. Pipe	280.00	pcs.	1,356.00	379,680.00
d. M16x120 Chemical Anchor Bolts	780.00	pcs.	500.00	390,000.00
b. Oxygen/Acetylene	7.00	sets	2,500.00	17,500.00
c. Welding Rod	4.00	kgs.	166.00	664.00
Miscellaneous (5% of Materials)				54,185.38
Sub-total for E				1,137,893.04
F. Direct Unit Cost (C + E)				2,384,853.12
G. Overhead Contingencies & Miscellaneous (OCM)		8%		190,788.25
H. Contractors Profit (CP)		8%		190,788.25
I. Value Added Tax (VAT)		5%		138,321.48
J. Total Unit Cost				5,841.75

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 404(i)a Reinforcing Steel Bar, (Grade 40)

Unit of Measurement : Kgs.

Output per hour : 180.00 Kg./hr.

Quantity : 15,337.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	10.65	611.92	6,517.37
b. Skilled Laborer	2	10.65	443.20	9,440.78
c. Laborer	8	10.65	342.24	29,160.75
Sub-total for A				45,118.90
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (31-35 MT)	1	2.13	14,888.00	31,713.51
b. Cargo Truck (10T, 270 Hp)	1	2.13	9,696.00	20,653.83
c. Bar Cutter	1	6.39	1,758.00	11,234.35
d. Bar Bender	1	6.39	2,812.00	17,969.85
Sub-total for B				81,571.54
C. Total (A + B)				126,690.44
D. Output / day 1,440.00 Kg./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Reinforcing Steel Bars, Grade 40 (w/ 5% wastage)	16,103.85	kg.	40.20	647,374.77
b. Tie Wire (2% of RSB)	323.00	kg.	92.00	29,716.00
Sub-total for E				677,090.77
F. Direct Unit Cost (C + E)				803,781.21
G. Overhead Contingencies & Miscellaneous (OCM)				8%
H. Contractors Profit (CP)				8%
I. Value Added Tax (VAT)				5%
J. Total Unit Cost				63.83

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : 404(ijb Reinforcing Steel Bar, (Grade 60)
Unit of Measurement : Kgs.
Output per hour : 360.00 Kg./hr.
Quantity : 516,029.79

Note: Use two (2) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	179.18	611.92	109,642.00
b. Skilled Laborer	4	179.18	443.20	317,645.00
c. Laborer	16	179.18	342.24	981,144.64
Sub-total for A				1,408,431.64
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane (31-35 MT)	2	44.79	14,888.00	1,333,793.67
b. Cargo Truck (10T, 270 Hp)	2	44.79	9,696.00	868,650.15
c. Bar Cutter	2	125.42	1,758.00	440,990.46
d. Bar Bender	2	125.42	2,812.00	705,384.05
Sub-total for B				3,348,818.32
C. Total (A + B)				4,757,249.97
D. Output / day 2,880.00 Kg./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Reinforcing Steel Bars, Grade 40 (w/ 5% wastage)	541,831.28	kg.	44.33	24,019,256.36
b. Tie Wire (2% of RSB)	10,837.00	kg.	92.00	997,004.00
Sub-total for E				25,016,260.36
F. Direct Unit Cost (C + E)				29,773,510.33
G. Overhead Contingencies & Miscellaneous (OCM)				8% 2,381,880.83
H. Contractors Profit (CP)				8% 2,381,880.83
I. Value Added Tax (VAT)				5% 1,726,863.60
J. Total Unit Cost				70.28

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

item No./Description : 405(1) b2 Structural Concrete, 27.58 Mpa

Unit of Measurement : cu.m.

Output per hour : 10.00 cu.m./hr.

Quantity : 3,321.46

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	41.52	611.92	25,405.85
b. Skilled Laborer	4	41.52	443.20	73,603.55
c. Laborer	8	41.52	342.24	113,673.65
Installation & Removal of Formworks/Falseworks: (5 gang)				
a. Construction Foreman	1	166.07	611.92	101,623.39
a. Skilled Laborer	20	166.07	443.20	1,472,071.07
b. Laborer	40	166.07	342.24	2,273,472.94
Sub-total for A				4,059,850.45
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Transit Mixer (5 m ³)	2	41.52	10,544.00	875,536.86
b. Concrete Vibrator	2	41.52	730.00	60,616.65
c. Batching Plant (30 m ³)	1	24.91	14,076.00	350,646.53
d. Payloader (1.50 m ³)	1	24.91	13,864.00	345,365.41
e. Water Truck/Pump (16000L)	1	14.53	19,600.00	284,815.20
f. Crawler Crane w/ Bucket (36 - 40 mt)	1	24.91	18,259.20	454,854.02
Minor Tools (5% of Labor)				202,992.52
Sub-total for B				2,574,827.18
Total (A + B)				6,634,677.63
C. Output / day				80.00 cu.m./day
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Good Lumber - 4 uses	83,036.50	bd.ft.	38.00	3,155,387.00
b. Marine Plywood (1/2" x 4' x 8') - 4 uses	1,245.55	pcs.	1,100.00	1,370,102.25
c. Assorted CW Nails	3,321.46	kg.	70.00	232,502.20
d. Portland Cement	36,536.06	bag	282.67	10,328,438.36
e. Sand	1,660.73	cu.m.	1,648.79	2,738,202.66
f. Gravel	3,321.46	cu.m.	1,448.79	4,812,113.31
f. Curing Compound	3,321.46	L	35.00	116,251.10
Sub-total for E				22,752,996.88
F. Direct Unit Cost (C + E)				29,387,674.51
G. Overhead Contingencies & Miscellaneous (OCM)				8% 2,351,013.96
H. Contractors Profit (CP)				8% 2,351,013.96
I. Value Added Tax (VAT)				5% 1,704,485.12
J. Total Unit Cost				10,776.64

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

item No./Description : 406(1)g10 Prestressed Structural Concrete Members, Type V (35.0 m)

Unit of Measurement : each

Output per hour : 0.03 ea./hr.

Quantity : 48.00

Note: Use five (5) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	172.81	611.92	105,745.02
b. Skilled Laborer	20	172.81	443.20	1,531,775.18
c. Laborer	40	172.81	342.24	2,365,680.22
Launching/Erection				
a. Construction Foreman	1	36.00	611.92	22,029.12
b. Skilled Laborer (Rigger)	4	36.00	443.20	63,820.80
Sub-total for A				4,089,050.33
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane with Bucket (41 - 45 MT)	5	51.84	25,017.60	6,484,883.57
b. Payloader (1.50 m ³), LX80-2C	5	48.00	13,864.00	3,327,360.00
c. Stressing (Jack) Machine	5	108.00	20,000.00	10,800,000.00
d. Bar Cutter	5	144.00	1,758.00	1,265,760.00
e. Bar Bender	5	144.00	2,812.00	2,024,640.00
f. Cutting Outfit	5	66.00	363.60	119,988.00
g. Concrete Vibrator	10	42.00	730.00	306,600.00
h. Plate Compactor (5 Hp)	10	72.00	984.00	708,480.00
i. Grouting Machine, Air Driven	5	12.00	6,930.00	415,800.00
j. Welding Machine (500 A), Electric Driven	5	66.00	3,128.00	1,032,240.00
Minor Tools (10% of Labor)				400,320.04
Launching/Erection				
a. Crawler Crane (51-60MT)	2	36.00	22,224.00	1,600,128.00
b. Dolly	1	36.00	9,992.00	359,712.00
Minor Tools (10% of Labor)				8,584.99
Sub-total for B				28,854,496.60
Total (A + B)				32,943,546.94
D. Output / day 0.28 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, 5000 psi	1,214.88	cu.m.	4,530.00	5,503,406.40
b. Reinforcing Steel Bar	245,628.96	kgs.	44.33	10,888,675.47
c. PSC Wire Strands (12.70 mmφ)	86,713.44	kgs.	55.00	4,769,239.20
d. Oxy/Acetylene	53.00	set	2,500.00	132,500.00
e. Tie Wire	5,281.44	kgs.	92.00	485,892.48
f. Good Lumber - 2 Uses	69,206.40	bd.ft.	38.00	2,629,843.20
g. Marine Plywood, 1/2' x 4' x 8' - 2 Uses	1,153.44	bd.ft.	1,100.00	1,268,784.00
h. Assorted C.W.N.	1,384.32	kgs.	70.00	96,902.40
i. Duct Tube Galvanized Metal (50mmφ)	9,240.00	m.	250.00	2,310,000.00
j. Anchorage Block (Steel) with accessories	480.00	pc.	350.00	168,000.00
k. Steel Block	96.00	pc.	300.00	28,800.00
l. Packing Tape	240.00	roll	45.00	10,800.00
m. Rubber Hose	1,200.00	m.	33.00	39,600.00
n. Cement (Grouting and Packing)	460.80	bags	282.00	129,945.60
o. Welding Rod	132.00	kgs.	166.00	21,912.00
Miscellaneous (1% of Materials Cost)				284,843.01
Casting Bed				
a. Ready Mix Concrete, 3000 psi @ 14 days	235.20	cu.m.	4,265.00	1,003,128.00
b. Coco Lumber	18,816.00	bd.ft.	25.00	470,400.00
c. Base Course	257.76	cu.m.	1,028.79	265,182.10
d. Assorted C.W.N.	188.16	kgs.	70.00	13,171.20
Sub-total for E				30,521,025.05
F. Direct Unit Cost (C + E)				63,464,571.99
G. Overhead Contingencies & Miscellaneous (OCM)		8%		5,077,165.76
H. Contractors Profit (CP)		8%		5,077,165.76
I. Value Added Tax (VAT)		5%		3,680,945.18
J. Total Unit Cost				1,610,413.51

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

item No./Description : 406(1)h1 Prestressed Structural Concrete Members, Type VI (33.0 m)

Unit of Measurement : each

Output per hour : 0.01 ea./hr.

Quantity : 2.00

Note: Use two (2) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	22.00	611.92	13,461.81
b. Skilled Laborer	8	22.00	443.20	78,000.70
c. Laborer	16	22.00	342.24	120,464.63
Launching/Erection				
a. Construction Foreman	1	1.50	611.92	917.88
b. Skilled Laborer (Rigger)	4	1.50	443.20	2,659.20
Sub-total for A				215,504.22
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane with Bucket (41 - 45 MT)	2	7.37	25,017.60	368,747.62
b. Payloader (1.50 m ³), LX80-2C	2	2.00	13,864.00	55,456.00
c. Stressing (Jack) Machine	2	4.50	20,000.00	180,000.00
d. Bar Cutter	2	6.00	1,758.00	21,096.00
e. Bar Bender	2	6.00	2,812.00	33,744.00
f. Cutting Outfit	2	2.75	363.60	1,999.80
g. Concrete Vibrator	4	1.75	730.00	5,110.00
h. Plate Compactor (5 Hp)	4	3.00	984.00	11,808.00
i. Grouting Machine, Air Driven	2	0.50	6,930.00	6,930.00
j. Welding Machine (500 A), Electric Driven	2	2.75	3,128.00	17,204.00
Minor Tools (10% of Labor)				21,192.71
Launching/Erection				
a. Crawler Crane (51-60MT)	2	1.50	22,224.00	66,672.00
b. Dolly	1	1.50	9,992.00	14,988.00
Minor Tools (10% of Labor)				357.71
Sub-total for B				805,305.85
Total (A + B)				1,020,810.06
C. Output / day 0.09 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, 5000 psi	50.34	cu.m.	4,530.00	228,040.20
b. Reinforcing Steel Bar	9,825.34	kgs.	44.33	435,555.07
c. PSC Wire Strands (12.70 mmφ)	3,613.06	kgs.	55.00	198,718.30
d. Oxy/Acetylene	3.00	set	2,500.00	7,500.00
e. Tie Wire	220.06	kgs.	92.00	20,245.52
f. Good Lumber - 2 Uses	2,883.60	bd.ft.	38.00	109,576.80
g. Marine Plywood, 1/2' x 4' x 8' - 2 Uses	48.06	bd.ft.	1,100.00	52,866.00
h. Assorted C.W.N.	57.68	kgs.	70.00	4,037.60
i. Duct Tube Galvanized Metal (50mmφ)	385.00	m.	250.00	96,250.00
j. Anchorage Block (Steel) with accessories	20.00	pc.	350.00	7,000.00
k. Steel Block	4.00	pc.	300.00	1,200.00
l. Packing Tape	10.00	roll	45.00	450.00
m. Rubber Hose	50.00	m.	33.00	1,650.00
n. Cement (Grouting and Packing)	19.20	bags	282.00	5,414.40
o. Welding Rod	5.50	kgs.	166.00	913.00
Miscellaneous (1% of Materials Cost)				11,694.17
Casting Bed				
a. Ready Mix Concrete, 3000 psi @ 14 days	9.80	cu.m.	4,265.00	41,797.00
b. Coco Lumber	784.00	bd.ft.	25.00	19,600.00
c. Base Course	10.74	cu.m.	1,028.79	11,049.25
d. Assorted C.W.N.	7.84	kgs.	70.00	548.80
Sub-total for E				1,254,106.11
F. Direct Unit Cost (C + E)				2,274,916.18
G. Overhead Contingencies & Miscellaneous (OCM)			8%	181,993.29
H. Contractors Profit (CP)			8%	181,993.29
I. Value Added Tax (VAT)			5%	131,945.14
J. Total Unit Cost				1,385,423.95

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : 406(1)h2 Prestressed Structural Concrete Members, Type VI (34.0 m)
Unit of Measurement : each
Output per hour : 0.01 ea./hr.
Quantity : 2.00

Note: Use two (2) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	22.00	611.92	13,461.81
b. Skilled Laborer	8	22.00	443.20	78,000.70
c. Laborer	16	22.00	342.24	120,464.63
Launching/Erection				
a. Construction Foreman	1	1.50	611.92	917.88
b. Skilled Laborer (Rigger)	4	1.50	443.20	2,659.20
Sub-total for A				215,504.22
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane with Bucket (41 - 45 MT)	2	7.37	25,017.60	368,747.62
b. Payloader (1.50 m³), LX80-2C	2	2.00	13,864.00	55,456.00
c. Stressing (Jack) Machine	2	4.50	20,000.00	180,000.00
d. Bar Cutter	2	6.00	1,758.00	21,096.00
e. Bar Bender	2	6.00	2,812.00	33,744.00
f. Cutting Outfit	2	2.75	363.60	1,999.80
g. Concrete Vibrator	4	1.75	730.00	5,110.00
h. Plate Compactor (5 Hp)	4	3.00	984.00	11,808.00
i. Grouting Machine, Air Driven	2	0.50	6,930.00	6,930.00
j. Welding Machine (500 A), Electric Driven	2	2.75	3,128.00	17,204.00
Minor Tools (10% of Labor)				21,192.71
Launching/Erection				
a. Crawler Crane (51-60MT)	2	1.50	22,224.00	66,672.00
b. Dolly	1	1.50	9,992.00	14,988.00
Minor Tools (10% of Labor)				357.71
Sub-total for B				805,305.85
Total (A + B)				1,020,810.06
C.				
D. Output / day 0.09 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, 5000 psi	51.86	cu.m.	4,530.00	234,925.80
b. Reinforcing Steel Bar	10,123.08	kgs.	44.33	448,753.81
c. PSC Wire Strands (12.70 mmφ)	3,613.06	kgs.	55.00	198,718.30
d. Oxy/Acetylene	3.00	set	2,500.00	7,500.00
e. Tie Wire	220.06	kgs.	92.00	20,245.52
f. Good Lumber - 2 Uses	2,883.60	bd.ft.	38.00	109,576.80
g. Marine Plywood, 1/2' x 4' x 8' - 2 Uses	48.06	bd.ft.	1,100.00	52,866.00
h. Assorted C.W.N.	57.68	kgs.	70.00	4,037.60
i. Duct Tube Galvanized Metal (50mmφ)	385.00	m.	250.00	96,250.00
j. Anchorage Block (Steel) with accessories	20.00	pc.	350.00	7,000.00
k. Steel Block	4.00	pc.	300.00	1,200.00
l. Packing Tape	10.00	roll	45.00	450.00
m. Rubber Hose	50.00	m.	33.00	1,650.00
n. Cement (Grouting and Packing)	19.20	bags	282.00	5,414.40
o. Welding Rod	5.50	kgs.	166.00	913.00
Miscellaneous (1% of Materials Cost)				11,895.01
Casting Bed				
a. Ready Mix Concrete, 3000 psi @ 14 days	9.80	cu.m.	4,265.00	41,797.00
b. Coco Lumber	784.00	bd.ft.	25.00	19,600.00
c. Base Course	10.74	cu.m.	1,028.79	11,049.25
d. Assorted C.W.N.	7.84	kgs.	70.00	548.80
Sub-total for E				1,274,391.30
F. Direct Unit Cost (C + E)				2,295,201.37
G. Overhead Contingencies & Miscellaneous (OCM)				8% 183,616.11
H. Contractors Profit (CP)				8% 183,616.11
I. Value Added Tax (VAT)				5% 133,121.68
J. Total Unit Cost				1,397,777.63

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 406(1)h3 Prestressed Structural Concrete Members, type VI (35.0 m)

Unit of Measurement : each

Output per hour : 0.01 ea./hr.

Quantity : 2.00

Note: Use two (2) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	22.00	611.92	13,461.81
b. Skilled Laborer	8	22.00	443.20	78,000.70
c. Laborer	16	22.00	342.24	120,464.63
Launching/Erection				
a. Construction Foreman	1	1.50	611.92	917.88
b. Skilled Laborer (Rigger)	4	1.50	443.20	2,659.20
Sub-total for A				215,504.22
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane with Bucket (41 - 45 MT)	2	7.37	25,017.60	368,747.62
b. Payloader (1.50 m³), LX80-2C	2	2.00	13,864.00	55,456.00
c. Stressing (Jack) Machine	2	4.50	20,000.00	180,000.00
d. Bar Cutter	2	6.00	1,758.00	21,096.00
e. Bar Bender	2	6.00	2,812.00	33,744.00
f. Cutting Outfit	2	2.75	363.60	1,999.80
g. Concrete Vibrator	4	1.75	730.00	5,110.00
h. Plate Compactor (5 Hp)	4	3.00	984.00	11,808.00
i. Grouting Machine, Air Driven	2	0.50	6,930.00	6,930.00
j. Welding Machine (500 A), Electric Driven	2	2.75	3,128.00	17,204.00
Minor Tools (10% of Labor)				21,192.71
Launching/Erection				
a. Crawler Crane (51-60MT)	2	1.50	22,224.00	66,672.00
b. Dolly	1	1.50	9,992.00	14,988.00
Minor Tools (10% of Labor)				357.71
Sub-total for B				805,305.85
C. Total (A + B)				1,020,810.06
D. Output / day 0.09 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, 5000 psi	53.40	cu.m.	4,530.00	241,902.00
b. Reinforcing Steel Bar	10,420.82	kgs.	44.33	461,952.56
c. PSC Wire Strands (12.70 mmφ)	3,613.06	kgs.	55.00	198,718.30
d. Oxy/Acetylene	3.00	set	2,500.00	7,500.00
e. Tie Wire	220.06	kgs.	92.00	20,245.52
f. Good Lumber - 2 Uses	2,883.60	bd.ft.	38.00	109,576.80
g. Marine Plywood, 1/2' x 4' x 8' - 2 Uses	48.06	bd.ft.	1,100.00	52,866.00
h. Assorted C.W.N.	57.68	kgs.	70.00	4,037.60
i. Duct Tube Galvanized Metal (50mmφ)	385.00	m.	250.00	96,250.00
j. Anchorage Block (Steel) with accessories	20.00	pc.	350.00	7,000.00
k. Steel Block	4.00	pc.	300.00	1,200.00
l. Packing Tape	10.00	roll	45.00	450.00
m. Rubber Hose	50.00	m.	33.00	1,650.00
n. Cement (Grouting and Packing)	19.20	bags	282.00	5,414.40
o. Welding Rod	5.50	kgs.	166.00	913.00
Miscellaneous (1% of Materials Cost)				12,096.76
Casting Bed				
a. Ready Mix Concrete, 3000 psi @ 14 days	9.80	cu.m.	4,265.00	41,797.00
b. Coco Lumber	784.00	bd.ft.	25.00	19,600.00
c. Base Course	10.74	cu.m.	1,028.79	11,049.25
d. Assorted C.W.N.	7.84	kgs.	70.00	548.80
Sub-total for E				1,294,768.00
F. Direct Unit Cost (C + E)				2,315,578.06
G. Overhead Contingencies & Miscellaneous (OCM)			8%	185,246.24
H. Contractors Profit (CP)			8%	185,246.24
I. Value Added Tax (VAT)			5%	134,303.53
J. Total Unit Cost				1,410,187.04

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City
Item No./Description : 406(1)h4 Prestressed Structural Concrete Members, type VI (36.0 m)
Unit of Measurement : each
Output per hour : 0.01 ea./hr.
Quantity : 2.00

Note: Use two (2) gang of labor and equipment

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	22.00	611.92	13,461.81
b. Skilled Laborer	8	22.00	443.20	78,000.70
c. Laborer	16	22.00	342.24	120,464.63
Launching/Erection				
a. Construction Foreman	1	1.50	611.92	917.88
b. Skilled Laborer (Rigger)	4	1.50	443.20	2,659.20
Sub-total for A				215,504.22
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Truck Mounted Crane with Bucket (41 - 45 MT)	2	7.37	25,017.60	368,747.62
b. Payloader (1.50 m ³), LX80-2C	2	2.00	13,864.00	55,456.00
c. Stressing (Jack) Machine	2	4.50	20,000.00	180,000.00
d. Bar Cutter	2	6.00	1,758.00	21,096.00
e. Bar Bender	2	6.00	2,812.00	33,744.00
f. Cutting Outfit	2	2.75	363.60	1,999.80
g. Concrete Vibrator	4	1.75	730.00	5,110.00
h. Plate Compactor (5 Hp)	4	3.00	984.00	11,808.00
i. Grouting Machine, Air Driven	2	0.50	6,930.00	6,930.00
j. Welding Machine (500 A), Electric Driven	2	2.75	3,128.00	17,204.00
Minor Tools (10% of Labor)				21,192.71
Launching/Erection				
a. Crawler Crane (51-60MT)	2	1.50	22,224.00	66,672.00
b. Dolly	1	1.50	9,992.00	14,988.00
Minor Tools (10% of Labor)				357.71
Sub-total for B				805,305.85
C. Total (A + B)				1,020,810.06
D. Output / day 0.09 ea./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Ready Mix Concrete, 5000 psi	54.92	cu.m.	4,530.00	248,787.60
b. Reinforcing Steel Bar	10,718.56	kgs.	44.33	475,151.31
c. PSC Wire Strands (12.70 mmφ)	3,613.06	kgs.	55.00	198,718.30
d. Oxy/Acetylene	3.00	set	2,500.00	7,500.00
e. Tie Wire	220.06	kgs.	92.00	20,245.52
f. Good Lumber - 2 Uses	2,883.60	bd.ft.	38.00	109,576.80
g. Marine Plywood, 1/2' x 4' x 8' - 2 Uses	48.06	bd.ft.	1,100.00	52,866.00
h. Assorted C.W.N.	57.68	kgs.	70.00	4,037.60
i. Duct Tube Galvanized Metal (50mmφ)	385.00	m.	250.00	96,250.00
j. Anchorage Block (Steel) with accessories	20.00	pc.	350.00	7,000.00
k. Steel Block	4.00	pc.	300.00	1,200.00
l. Packing Tape	10.00	roll	45.00	450.00
m. Rubber Hose	50.00	m.	33.00	1,650.00
n. Cement (Grouting and Packing)	19.20	bags	282.00	5,414.40
o. Welding Rod	5.50	kgs.	166.00	913.00
Miscellaneous (1% of Materials Cost)				12,297.61
Casting Bed				
a. Ready Mix Concrete, 3000 psi @ 14 days	9.80	cu.m.	4,265.00	41,797.00
b. Coco Lumber	784.00	bd.ft.	25.00	19,600.00
c. Base Course	10.74	cu.m.	1,028.79	11,049.25
d. Assorted C.W.N.	7.84	kgs.	70.00	548.80
Sub-total for E				1,315,053.19
F. Direct Unit Cost (C + E)				2,335,863.25
G. Overhead Contingencies & Miscellaneous (OCM)				8% 186,869.06
H. Contractors Profit (CP)				8% 186,869.06
I. Value Added Tax (VAT)				5% 135,480.07
J. Total Unit Cost				1,422,540.72

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 40/(8) Lean Concrete

Unit of Measurement : cu.m.

Output per hour : 1.40 cu.m./hr.

Quantity : 29.61

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	2.64	611.92	1,617.76
b. Skilled Laborer	4	2.64	443.20	4,686.84
c. Laborer	8	2.64	342.24	7,238.38
Sub-total for A				13,542.98
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. One Bagger Mixer	1	2.64	1,376.00	3,637.80
b. Concrete Vibrator	1	2.64	730.00	1,929.94
c. Water Truck	1	0.26	19,600.00	5,181.75
Minor Tools (5% of Labor)				677.15
Sub-total for B				11,426.64
C. Total (A + B)				24,969.62
D. Output / day 11.20 cu.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Form Lumber	2.44	bd.ft.	38.00	92.83
b. Marine Plywood (1/2' x 4' x 8')	11.84	pcs.	1,100.00	13,028.40
c. Assorted CW Nails	29.61	kg.	70.00	2,072.70
d. Portland Cement	207.27	bag	282.69	58,593.49
e. Sand	14.81	cu.m.	1,648.79	24,410.40
f. Gravel	29.61	cu.m.	1,448.79	42,898.81
Sub-total for E				141,096.63
F. Direct Unit Cost (C + E)				166,066.25
G. Overhead Contingencies & Miscellaneous (OCM)				8%
H. Contractors Profit (CP)				8%
I. Value Added Tax (VAT)				5%
J. Total Unit Cost				6,831.09

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 412(1) Elastomeric Bearing Pads

Unit of Measurement : each

Output per hour : 1.00 ea./hr.

Quantity : 112.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	14.00	611.92	8,566.88
b. Laborer	2	14.00	342.24	9,582.72
Sub-total for A				18,149.60
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Wood/Steel Ladder	1	14.00	800.00	11,200.00
Minor Tools (5% of Labor)				907.48
Sub-total for B				12,107.48
C. Total (A + B)				30,257.08
D. Output / day 8.00 cu.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Elastomeric Bearing Pad	112.00	pcs.	40,000.00	4,480,000.00
Miscellaneous (10% of Labor)				1,814.96
Sub-total for E				4,481,814.96
F. Direct Unit Cost (C + E)				4,512,072.04
G. Overhead Contingencies & Miscellaneous (OCM)		8%		360,965.76
H. Contractors Profit (CP)		8%		360,965.76
I. Value Added Tax (VAT)		5%		261,700.18
J. Total Unit Cost				49,068.78

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

Item No./Description : 413(3)b Premoulded expansion Joint Filler with Sealant

Unit of Measurement : cu.m.

Output per hour : 1.00 cu.m./hr.

Quantity : 44.10

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	5.51	611.92	3,373.21
b. Skilled Laborer	1	5.51	443.20	2,443.14
c. Laborer	1	5.51	342.24	1,886.60
Sub-total for A				7,702.95
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
a. Wood/Steel Ladder	1	5.51	800.00	4,410.00
Minor Tools (5% of Labor)				385.15
Sub-total for B				4,795.15
C. Total (A + B)				12,498.09
D. Output / day 8.00 cu.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Premoulded Expansion Joint Filler	46.31	cu.m.	55.00	2,546.78
Miscellaneous (10% of Labor)				770.29
Sub total for E				3,317.07
F. Direct Unit Cost (C + E)				15,815.16
G. Overhead Contingencies & Miscellaneous (OCM)		8%		1,265.21
H. Contractors Profit (CP)		8%		1,265.21
I. Value Added Tax (VAT)		5%		917.28
J. Total Unit Cost				436.80

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Construction of Flyovers/Interchanges/Underpasses/Long Span Bridges
Governor Camins/MCLL Highway and Veterans Avenue Flyover Including ROW, Zamboanga City

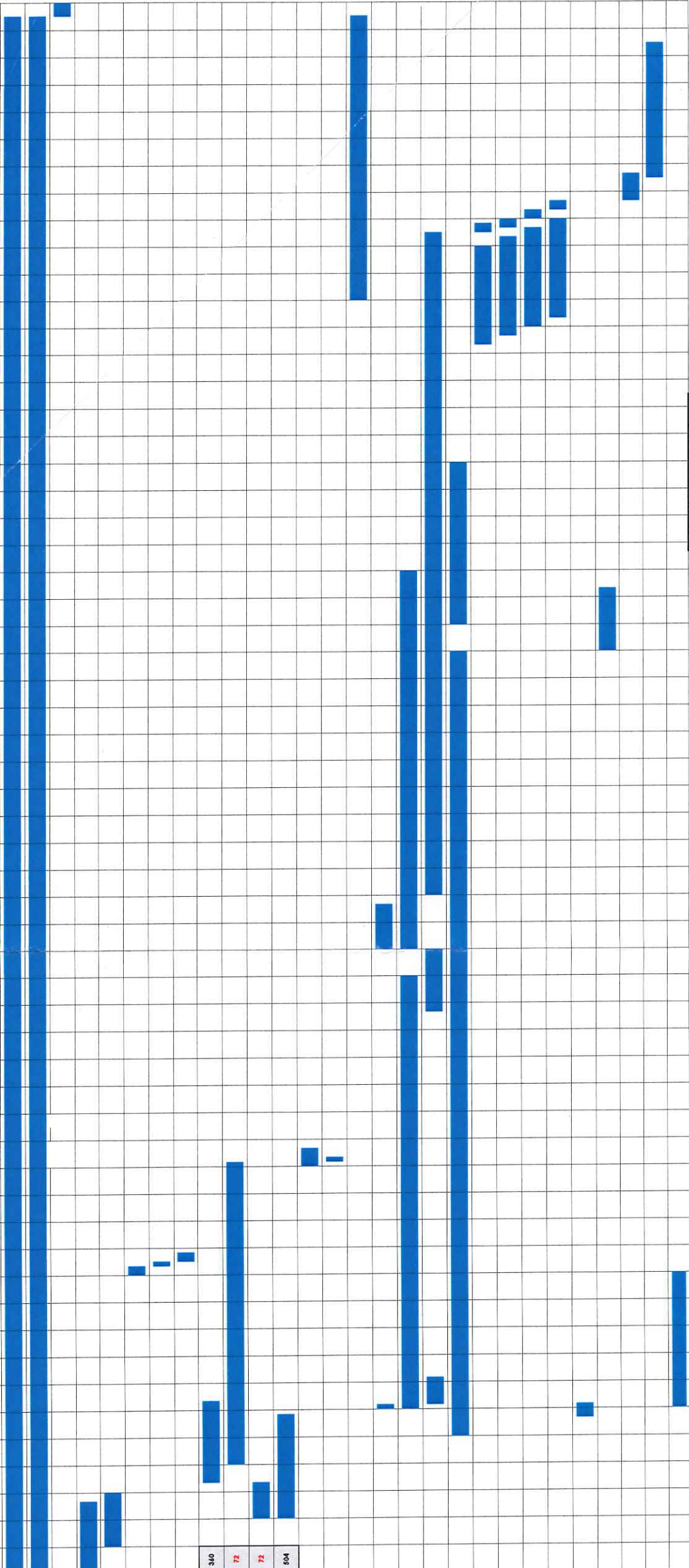
Item No./Description : 414(I) Forms and Falseworks

Unit of Measurement : l.s

Output per hour : 1.00 ea./hr.

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	30.00	611.92	18,357.60
b. Skilled Laborer	4	30.00	443.20	53,184.00
C. Laborer	8	30.00	342.24	82,137.60
Sub-total for A				153,679.20
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment Cost (2014 ACEL Rates)				
Minor Tools (5% of Labor)				15,367.92
Sub-total for B				15,367.92
C. Total (A + B)				169,047.12
D. Output / day 8.00 cu.m./day				
Name and Specification	Quantity	Unit	Unit Cost	Total
E. Materials				
a. Forms and Falseworks	1.00	l.s.	2,000,000.00	2,000,000.00
Sub total for E				2,000,000.00
F. Direct Unit Cost (C + E)				2,169,047.12
G. Overhead Contingencies & Miscellaneous (OCM)		8%		173,523.77
H. Contractors Profit (CP)		8%		173,523.77
I. Value Added Tax (VAT)		5%		125,804.73
J. Total Unit Cost				2,641,899.39



340
72
72
504

Submitted by:


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMBALAO D. DIA
Assistant Regional Director

Approved:


JORGE U. SEBASTIAN
Regional Director


J. BARRERA