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)

Date :

NAME OF PROJECT :

Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

LOCATION:

Zamboanga City

PROJECT CATEGORY :

NATIONAL ROAD

Appropriation	:	P 140,000,000.00
Source of Funds	:	CY-2018 GAA
Issued Obligated Authority	:	
Released	:	
Cal. Days to Complete	:	244 Calendar Days
Desirable Starting Date	:	upon approval
Mode of Implementation	:	by contract

PROJECT DESCRIPTION :

Scope of Work	:	Road Opening
Road Width	:	6.70 m.
Roadbed Width	:	12.00 m.
Subbase Course	:	0.30 m. thk.
Surface Course	:	0.15 m. thk.

Station Limits: **Length**

I 15+040.00 - 17+220.64 2,180.64

Net Length: **2,180.64 ln.m.** / **2.18 km.**

1,520.00 km. (2 Lanes Unpaved)

Lane Kilometer: **2.64 km.** (4 Lanes Paved)

MINIMUM EQUIPMENT REQUIREMENT : TECHNICAL PERSONNEL REQUIRED :

Description	No.	Description	No.	Description	No.
Dump Truck	12	Water Pump	1	Project Engineer	1
Transti Mixer	4	Concrete Screeder	1	Materials Engineer	1
Bulldozer	2	Concrete Vibrator	2	Geometric Surveyor	1
Backhoe	3	Concrete Cutter	2	Foreman	1
Road Grader	2	Bar Cutter	1	Materials Lab. Tech.	1
Road Roller	2	Bar Bender	1	Mason	12
Payloader	4	One Bagger Mixer	2	Carpenter	8
Water Truck	2	Batching Plant	1	Laborers (Skilled)	20
Water Tank	2	Plate Compactor	1	Laborers (Unskilled)	30
Kneading Machine	1	Cargo Truck	1	Safety Practitioner	1
Applicator Machine	1				

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	0.38	L.S.	1.00	410,362.99	410,362.99
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	0.28	L.S.	1.00	296,073.33	296,073.33
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	0.28	month	8.13	300,032.08	36,889.19
PART B - OTHER GENERAL REQUIREMENTS						
B.4(1)	Construction Survey & Staking	0.10	km.	2.18	102,945.99	47,209.07
B.5	Project Billboard/Signboard	0.01	each	2.00	10,979.20	5,489.60
B.7	Occupation Safety and Health Program	0.24	month	8.13	254,555.04	31,297.75
B.9	Mobilization & Demobilization	0.94	L.S.	1.00	1,007,775.00	1,007,775.00
PART C - EARTHWORKS						
101(3)b2	Removal of Actual Structures/Obstruction	0.07	sq.m.	720.00	72,302.95	100.42
102(1)	Unsuitable Excavation	1.54	cu.m.	6,920.00	1,652,362.10	238.78
~~103(1)a~~	~~Structure Excavation~~	0.60	cu.m.	~~2,798.00~~	640,998.02	229.09
103(3)	Foundation Fill	0.01	cu.m.	6.00	13,674.17	2,279.03
103(6)a	Pipe Culverts and Drain Excavation	0.01	cu.m.	30.00	6,903.47	230.12
104(1)a	Embankment from Roadway Excavation	0.48	cu.m.	2,179.00	516,046.52	236.83
104(2)a	Embankment from Borrow	16.36	cu.m.	30,123.00	17,522,309.12	581.69
104(5)	Boulder Fill	29.89	cu.m.	17,776.00	32,006,301.63	1,800.53
105(1)a	Subgrade Preparation	0.06	sq.m.	3,706.00	59,216.32	15.98

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course	10.01	cu.m.	8,960.00	10,850,586.88	1,211.00
201(1)	Aggregate Base Course	1.17	cu.m.	1,050.00	1,271,553.15	1,211.00
PART E - SURFACE COURSES						
300(1)	Gravel Surface Course	0.11	cu.m.	97.00	123,602.54	1,274.25
311(1)c1	Portland Cement Concrete Pavement	1.59	sq.m.	1,225.00	1,721,455.25	1,405.27
311(1)e1	~~Portland Cement Concrete Pavement~~	16.00	sq.m.	~~10,160.00~~	17,336,554.72	1,706.35
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
404(1)a	~~Reinforcing~~ Steel	6.06	kg.	~~139,248.00~~	6,561,176.23	47.12
405(1)a3	~~Structural Co~~ncrete, Class "A"	9.93	cu.m.	~~1,483.00~~	10,756,470.71	7,253.18
407(8)	Lean Concrete	0.62	cu.m.	122.22	667,367.29	5,460.38
500(1)b3	Pipe Culverts	0.11	ln.m.	38.00	113,934.36	2,998.27
503(1)	~~Metal Frames & Grating~~	0.47	set	~~68.00~~	512,674.24	7,539.33
505(2)a	Grouted Riprap, Class "A"	0.04	cu.m.	12.00	41,798.82	3,483.24
506(1)	Stone Masonry	0.85	cu.m.	218.00	916,470.53	4,203.99
PART H - MISCELLANEOUS STRUCTURES						
~~611(1)~~	Trees (Furnishing and Transplanting)	0.28	each	68.00	305,775.26	4,496.70
~~612(1)~~	Reflectorized Thermoplastic Pavement Markings (White)	0.37	sq.m.	545.00	402,822.98	739.12
~~612(2)~~	Reflectorized Thermoplastic Pavement Markings (Yellow)	0.03	sq.m.	40.00	32,575.34	814.38
715(1)	Separation Geotextile	1.72	sq.m.	10,048.00	1,863,052.93	185.42
TOTAL		**100.00**			**P 108,350,709.15**	

NAME OF PROJECT : **Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City**

Zamboanga City

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Labor	3.06	4,278,016.13
A.2. Equipment Expenses	11.53	16,140,348.04
A.3. Materials	62.81	87,932,344.99
SUB-TOTAL (DIRECT COST)	**77.39**	**P 108,350,709.15**
B. INDIRECT COST (Per D.O. # 197, s. 2016)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	7.61	10,649,227.37
B.2. Profit (8 % Max. of D.C.)	6.12	8,563,432.17
C. VAT (5% of D.C. and I.C. Per D.O. # 197, s. 2016)	4.56	6,378,168.43
SUBTOTAL (CONTRACT COST)	**95.67**	**P 133,941,537.13**
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	4,900,000.00
2. Detailed Engineering (1%)		
3. Reserved for the Payment of RROW	0.83	1,158,462.87
4. Physical Reserved	0.00	
TOTAL ESTIMATED PROJECT COST	**100.00**	**P 140,000,000.00**

Prepared :	Checked :
ELWICK P. ACUÑA Engineer II	**JOSEPHINE B. RENGQUIJO** Engineer II
Submitted : OB **LEONCIO B. SOLAMILLO** Chief, Construction Division	Recommending Approval : **CAYAMOMBAO D. DIA** Assistant Regional Director

Approved :

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

APPROVED BUDGET FOR THE CONTRACT

Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Stations : 15+040.00 to 17+220.64

Length : 0.00 ln.m. Contract Duration : 244 CD

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN % OCM	MARK-UPS IN % PROFIT	TOTAL MARK-UPS %	TOTAL MARK-UPS VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
(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	1.00	L.S.	410,362.99	10.00	8.00	18.00	73,865.34	24,211.42	98,076.75	508,439.74	508,439.74
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	1.00	L.S.	296,073.33	-	8.00	8.00	23,685.87	15,987.96	39,673.83	335,747.16	335,747.16
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	8.13	month	300,032.08	-	-	-	-	15,001.60	15,001.60	315,033.68	38,733.65
	TOTAL OF PART A			**1,006,468.40**				*97,551.20*	*55,200.98*	*152,752.18*	**1,159,220.59**	
PART B - OTHER GENERAL REQUIREMENTS												
B.4(1)	Construction Survey & Staking	2.18	km.	102,945.99	10.00	8.00	18.00	18,530.28	6,073.81	24,604.09	127,550.08	58,492.04
B.5	Project Billboard/Signboard	2.00	each	10,979.20	10.00	8.00	18.00	1,976.26	647.77	2,624.03	13,603.23	6,801.61
B.7	Occupation Safety and Health Program	8.13	month	254,555.04	-	8.00	8.00	20,364.40	13,745.97	34,110.38	288,665.42	35,491.65
B.9	Mobilization & Demobilization	1.00	L.S.	1,007,775.00	-	-	-	-	50,388.75	50,388.75	1,058,163.75	1,058,163.75
	TOTAL OF PART B			**1,376,255.23**				*40,870.94*	*70,856.31*	*111,727.25*	**1,487,982.47**	
PART C - EARTHWORKS												
101(3)b2	Removal of Actual Structures/Obstruction	720.00	sq.m.	72,302.95	10.00	8.00	18.00	13,014.53	4,265.87	17,280.40	89,583.35	124.42
102(1)	Unsuitable Excavation	6,920.00	cu.m.	1,652,362.10	10.00	8.00	18.00	297,425.18	97,489.36	394,914.54	2,047,276.64	295.85
103(1)a	~~Structure Excavation~~	~~2,798.00~~	cu.m.	640,998.02	10.00	8.00	18.00	115,379.64	37,818.88	153,198.53	794,196.54	283.84
103(3)	Foundation Fill	6.00	cu.m.	13,674.17	10.00	8.00	18.00	2,461.35	806.78	3,268.13	16,942.30	2,823.72
103(6)a	Pipe Culverts and Drain Excavation	30.00	cu.m.	6,903.47	10.00	8.00	18.00	1,242.62	407.30	1,649.93	8,553.40	285.11
104(1)a	Embankment from Roadway Excavation	2,179.00	cu.m.	516,046.52	10.00	8.00	18.00	92,888.37	30,446.74	123,335.12	639,381.63	293.43
104(2)a	Embankment from Borrow	30,123.00	cu.m.	17,522,309.12	10.00	8.00	18.00	3,154,015.64	1,033,816.24	4,187,831.88	21,710,141.00	720.72
104(5)	Boulder Fill	17,776.00	cu.m.	32,006,301.63	10.00	8.00	18.00	5,761,134.29	1,888,371.80	7,649,506.09	39,655,807.72	2,230.86
105(1)a	Subgrade Preparation	3,706.00	sq.m.	59,216.32	10.00	8.00	18.00	10,658.94	3,493.76	14,152.70	73,369.02	19.80
	TOTAL OF PART C			**52,490,114.29**				*9,448,220.57*	*3,096,916.74*	*12,545,137.32*	**65,035,251.61**	
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course	8,960.00	cu.m.	10,850,586.88	10.00	8.00	18.00	1,953,105.64	640,184.63	2,593,290.26	13,443,877.14	1,500.43
201(1)	Aggregate Base Course	1,050.00	cu.m.	1,271,553.15	10.00	8.00	18.00	228,879.57	75,021.64	303,901.20	1,575,454.35	1,500.43
	TOTAL OF PART D			**12,122,140.03**				*2,181,985.21*	*715,206.26*	*2,897,191.47*	**15,019,331.50**	
PART E - SURFACE COURSES												
300(1)	Gravel Surface Course	97.00	cu.m.	123,602.54	10.00	8.00	18.00	22,248.46	7,292.55	29,541.01	153,143.55	1,578.80
311(1)c1	Portland Cement Concrete Pavement	1,225.00	sq.m.	1,721,455.25	10.00	8.00	18.00	309,861.94	101,565.86	411,427.80	2,132,883.05	1,741.13
~~311(1)e1~~	Portland Cement Concrete Pavement	10,160.00	sq.m.	17,336,554.72	10.00	8.00	18.00	3,120,579.85	1,022,856.73	4,143,436.58	21,479,991.30	2,114.17
	TOTAL OF PART E			**19,181,612.51**				*3,452,690.25*	*1,131,715.14*	*4,584,405.39*	**23,766,017.90**	
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES												
404(1)a	Reinforcing Steel	139,248.00	kg.	6,561,176.23	10.00	8.00	18.00	1,181,011.72	387,109.40	1,568,121.12	8,129,297.35	58.38
405(1)a3	Structural Concrete, Class "A"	1,483.00	cu.m.	10,756,470.71	10.00	8.00	18.00	1,936,164.73	634,631.77	2,570,796.50	13,327,267.21	8,986.69
~~407(8)~~	Lean Concrete	122.22	cu.m.	667,367.29	10.00	8.00	18.00	120,126.11	39,374.67	159,500.78	826,868.08	6,765.41
500(1)b3	Pipe Culverts	38.00	ln.m.	113,934.36	10.00	8.00	18.00	20,508.18	6,722.13	27,230.31	141,164.67	3,714.86
~~503(1)~~	Metal Frames & Grating	~~68.00~~	set	512,674.24	10.00	8.00	18.00	92,281.36	30,247.78	122,529.14	635,203.38	9,341.23
505(2)a	Grouted Riprap, Class "A"	12.00	cu.m.	41,798.82	10.00	8.00	18.00	7,523.79	2,466.13	9,989.92	51,788.74	4,315.73
506(1)	Stone Masonry	218.00	cu.m.	916,470.53	10.00	8.00	18.00	164,964.70	54,071.76	219,036.46	1,135,506.99	5,208.75
	TOTAL OF PART G			**19,569,892.18**				*3,522,580.59*	*1,154,623.64*	*4,677,204.23*	**24,247,096.41**	

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN %		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 H - MISCELLANEOUS STRUCTURES												
~~611(1)~~	Trees (Furnishing and Transplanting)	68.00	each	305,775.26	10.00	8.00	18.00	55,039.55	18,040.74	73,080.29	378,855.55	5,571.41
~~612(1)~~	Reflectorized Thermoplastic Pavement Markings (White)	545.00	sq.m.	402,822.98	10.00	8.00	18.00	72,508.14	23,766.56	96,274.69	499,097.67	915.78
~~612(2)~~	Reflectorized Thermoplastic Pavement Markings (Yellow)	40.00	sq.m.	32,575.34	10.00	8.00	18.00	5,863.56	1,921.95	7,785.51	40,360.85	1,009.02
715(1)	Separation Geotextile	10,048.00	sq.m.	1,863,052.93	10.00	8.00	18.00	335,349.53	109,920.12	445,269.65	2,308,322.59	229.73
	TOTAL OF PART H			**2,604,226.51**				*468,760.77*	*153,649.36*	*622,410.14*	**3,226,636.65**	
	TOTAL			**108,350,709.15**				19,212,659.54	6,378,168.43	25,590,827.97	**133,941,537.13**	

Prepared by :

BELEN A. SAPALLEDA
Head, BAC Technical Working Group

Submitted by :

DB

LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

CAYAMOMBAO D. DIA
OIC - Assistant. Regional Director

Approved by :

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

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: A.1.1(3) Construction of Field Office for the Engineer
Unit of Measurement: L.S.
Output per hour:
Quantity: 1.00

7.00 m. x 9.00 m., 1 - Classoom, for Government Field Office, fully furnished as shown on plans

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	8.00	611.92	4,895.36
	b. Mason	3	8.00	443.20	10,636.80
	c. Carpenter	3	8.00	443.20	10,636.80
	d. Laborer	6	8.00	342.24	16,427.52
	Sub-total for A			P	42,596.48
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	6.00	1,376.00	8,256.00
	b. Water Truck	1	1.00	19,600.00	19,600.00
	Minor Tools 10% of Labor				4,259.65
	Sub-total for B			P	32,115.65
C.	Total (A+B)				74,712.13
D.	Output/day -	L.S./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	I. Earthworks (Excavation, Embankment, Bedding)				
	a. Gravel Bedding	3.50	cu.m.	1,389.68	4,863.88
	b. Selected Fill	10.00	cu.m.	388.35	3,883.50
	c. Soil Poisoning	2.50	L	1,900.00	4,750.00
	II. Concrete Works (Footing, Columns, Beams & Slab on Grade)				
	a. Portland Cement	90.00	bag	285.00	25,650.00
	b. Crushed Gravel	21.00	cu.m.	1,389.68	29,183.28
	c. Washed Sand	18.00	cu.m.	1,689.68	30,414.24
	III. Reinforcing Bars(Footing Columns, Beams, & Slabs on Grade)				
	a. Deformed Round Bar, Grade 40	435.00	kg.	38.00	16,530.00
	b. No. 16 GI Tie Wire	20.00	kg.	90.00	1,800.00
	IV. Formworks (Columns & Beams)				
	a. Coco Lumber	400.00	bd.ft.	25.00	10,000.00
	b. Ordinary Plywood, 1/4"x4'x8'	18.00	pc.	420.00	7,560.00
	c. CWN, Assorted	5.00	kg.	70.00	350.00
	V. Masonry Works (masonry walls & plastering)				
	a. CHB 6" thk	650.00	pc.	18.00	11,700.00
	b. Portland Cement	45.00	bag	285.00	12,825.00
	c. Washed Sand	8.00	cu.m.	1,689.68	13,517.44
	d. 10mm dia. X 6m RSB	65.00	kg.	38.00	2,470.00
	e. No. 16 GI Tie Wire	2.50	kg.	90.00	225.00
	VI. Doors and Windows				
	a. D-1, Hollow Core Flush Type swing door, complete w/ accessories, 0.90mx2.1m	2.00	set	1,765.26	3,530.52
	b. W-1, Jalousie window, 1.4m x 1.2m	2.00	set	924.00	1,848.00
	c. W-2, Jalousie window, 2.8m x 1.2m	2.00	set	1,848.00	3,696.00
	Sub-total for E			P	184,796.86
	Sub-total for E (I + II + III)			P	335,650.86
F.	Direct Cost (C + E)				410,362.99
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		41,036.30
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		32,829.04
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		24,211.42
J.	Total Unit Cost				508,439.74

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.
Unit of Measurement: L.S.
Output per hour:
Quantity: 1.00

For Government Field Office, fully furnished as shown on plans

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	Sub-total for A			P	-
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				-
	Sub-total for B			P	-
C.	Total (A+B)				-
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	VII. Steel Works				
	a. 65 x 65 x 6mm. L	350.00	kg.	48.00	16,800.00
	b. 50 x 50 x 6mm. L	250.00	kg.	48.00	12,000.00
	c. 50 x 50 x 4mm. L	100.00	kg.	48.00	4,800.00
	d. Purlins C- 150 x 50 x 3mm.	18.00	kg.	48.00	864.00
	e. 16mm dia. Cross bracing	35.00	kg.	38.00	1,330.00
	f. 16mm dia. Turn buckle	20.00	pc.	118.00	2,360.00
	g. 12mm thk base plate	25.00	kg.	47.00	1,175.00
	h. 10mm thk batten plate	15.00	kg	47.00	705.00
	i. 10mm dia. Sag rod	10.00	kg.	38.00	380.00
	j. 20mm dia. X 350 mm anchor bolts	10.00	pc.	36.00	360.00
	k. Welding Rod	15.00	kg.	169.00	2,535.00
	l. Primer, Zinc Cromate	5.00	gal.	531.00	2,655.00
	VIII Roofing Works				
	a. Pre-painted GI Roofing Sheet long span	55.00	sq.m.	420.00	23,100.00
	b. Pre-painted ridge roll ga 24, 0.60m width	10.00	ln.m.	113.00	1,130.00
	c. Pre-painted flashing, ga. 24	2.00	ln.m.	113.00	226.00
	d. Teckscrew 11/2"	1,000.00	pc.	1.25	1,250.00
	e. Roof Sealant	2.00	L	250.00	500.00
	IX. Carpentry Works				
	a. Rough Lumber, sun dried tanguile	500.00	bd.ft.	38.00	19,000.00
	b. Plywood, ordinary 1/4" x 4' x 8'	30.00	pc.	420.00	12,600.00
	c. Finishing Nails	5.00	kg.	100.00	500.00
	d. Common Wire Nails	10.00	kg.	70.00	700.00
	e. Wood Preservative Brown	5.00	L	400.00	2,000.00
	Sub-total for E			P	106,970.00
F.	Direct Cost (C + E)				
G.	Overhead, Contingencies and Miscellaneous	10% per D.O. 197, s. 2016			
H.	Contractor's Profit(CP)	8% per D.O. 197, s. 2016			
I.	Value Added Tax (VAT)	5% per D.O. 197, s. 2016			
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City
Item No./Description:	A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.
Unit of Measurement:	L.S.
Output per hour:	
Quantity:	1.00

For Government Field Office, fully furnished as shown on plans

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	Sub-total for A			P	-
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	-
C.	Total (A+B)				-
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	X. Electrical Works				
	a. 2 x 40w Flourescent lighting fixtures	5.00	set	1,030.00	5,150.00
	b. Porcelain Ceiling Outlet w/ female socket	2.00	pc	50.00	100.00
	c. Duplex Convinience outlet	3.00	pc	170.00	510.00
	d. two gang switch	3.00	pc	132.00	396.00
	e. 3.5mm2 thw	3.00	roll	3,600.00	10,800.00
	f. 8.00mm2 thw	25.00	m	70.00	1,750.00
	g. 15mm dia. PVC pipe	20.00	pc	73.00	1,460.00
	h. 15mm dia. PVC Coupling	25.00	pc	5.00	125.00
	i. 15mm dia. PVC Elbow	25.00	pc	26.00	650.00
	j. 15mm dia. PVC Clamp	55.00	pc	8.00	440.00
	k. 20mm dia. RSC Pipe	4.00	pc	240.00	960.00
	l. 20mm dia. RSC Coupling	3.00	pc	9.00	27.00
	m. 20mm dia. RSC elbow	3.00	pc	30.00	90.00
	n. 20mm dia. RSC Clamp	10.00	pc	18.00	180.00
	o. 20mm dia. Service entrance cap	2.00	pc	100.00	200.00
	p. wire holder	2.00	pc	50.00	100.00
	q. utility box	7.00	pc	32.00	224.00
	r. octagonal box	8.00	pc	34.00	272.00
	s. electrical tape (big)	7.00	pc	31.00	217.00
	t. panel board (side main w/ braches)	2.00	set	1,627.00	3,254.00
	XI. Plumbing Works				
	a. Water Closet (include. Fitting & Accessories)	1.00	set	7,375.00	7,375.00
	b. Lavatory (include fitting & Accessories)	1.00	set	6,615.00	6,615.00
	c. 1/2" GI Pipe S-40	2.00	pc	166.00	332.00
	d. 1/2" Water Faucet	2.00	pc	321.00	642.00
	e. 1/2" Assorted Connector	8.00	pc	20.00	160.00
	f. 4" PVC series 1000	1.00	pc	640.00	640.00
	g. 2" PVC series 1000	1.00	pc	305.00	305.00
	h. 4" PVC assorted Connector	6.00	pc	77.00	462.00
	i. 2" PVC assorted Connector	8.00	pc	56.00	448.00
	Sub-total for E			P	43,884.00
F.	Direct Cost (C + E)				
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: A.1.1(11) Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	Sub-total for A			P	-
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	-
C.	Total (A+B)				-
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Office Equipment/Facilities & Supplies				
	Electric Desk Fan	2.00	unit	1,370.00	2,740.00
	Folding Beds, Good Quality	2.00	each	2,700.00	5,400.00
	pillows w/ pillow cases, fitted sheets and blanket	2.00	each	5,000.00	10,000.00
	Double burner gas stove (Gasul)	1.00	unit	3,700.00	3,700.00
	10 cups Rice Cooker	1.00	unit	2,500.00	2,500.00
	Various Office Supply *(Folders, Bond Paper, Yellow Pads, Ball Pens, Pencil, Envelopes, etc.)*	1.00	L.S.	45,000.00	45,000.00
	Kitchenware *(Plates, Spoons & Forks, Glasses, etc.)*	1.00	L.S.	30,000.00	30,000.00
	Dining Table	1.00	set	8,000.00	8,000.00
	Digital Camera	2.00	set	12,000.00	24,000.00
	Cellphone	4.00	set	15,000.00	60,000.00
	Desktop Computer	1.00	set	60,000.00	60,000.00
	Lighting/Water Fixtures				
	a. Electrical Bill	8.13	mos.	3,000.00	24,400.00
	b. Water Bill	8.13	mos.	1,500.00	12,200.00
	c. LPG (11 kg)	8.13	mos.	1,000.00	8,133.33
	Sub-total for E			P	296,073.33
F.	Direct Cost (C + E)				296,073.33
G.	Overhead, Contingencies and Miscellaneous		per D.O. 197, s. 2016		-
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		23,685.87
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		15,987.96
J.	Total Unit Cost				335,747.16

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: A.1.2(5) Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer
Unit of Measurement: month
Output per hour:
Quantity: 8.13

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Driver	1	244	422.32	103,046.08
	Sub-total for A			P	103,046.08
	Name and Capacity	No. of Equipment	No. of Months	Monthly Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	-
C.	Total (A+B)				103,046.08
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Diesel	2,440.00	L	31.00	75,640.00
	b. Spare Parts	1.00	L.S.	60,000.00	60,000.00
	c. Engine Oil & Lubricants	1.00	L.S.	11,346.00	11,346.00
	d. Miscellaneous	1.00	L.S.	50,000.00	50,000.00
	Sub-total for E			P	196,986.00
F.	Direct Cost (C + E)				300,032.08
G.	Overhead, Contingencies and Miscellaneous			per D.O. 197, s. 2016	-
H.	Contractor's Profit(CP)			per D.O. 197, s. 2016	-
I.	Value Added Tax (VAT)			5% per D.O. 197, s. 2016	15,001.60
J.	Total Unit Cost				38,733.65

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: B.4(1) Construction Survey & Staking
Unit of Measurement: km.
Output per hour: 0.04
Quantity: 2.181

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Field Works				
	a. Geodetic Engineer	1	6.81	833.31	5,678.59
	b. Skilled Laborer	3	6.81	443.20	9,060.56
	c. Laborer	3	6.81	342.24	6,996.58
	For Office Works				
	a. Geodetic Engineer	1	20.44	833.31	17,035.77
	b. Skilled Laborer	2	20.44	443.20	18,121.12
	Sub-total for A			P	56,892.63
	Name and Capacity	No. of Equipment	No. of Days	Unit Cost	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Total Station w/ complete accessories	1	6.81	800.00	5,451.60
	Minor Tools 10% of Labor				5,689.26
	Sub-total for B			P	11,140.86
C.	Total (A+B)				68,033.49
D.	Output/day 0.32	km./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Standard Stake Plan (800 mm x 910 mm)	70.00	pc	400.00	28,000.00
	b. Blue Printing	350.00	pc	15.00	5,250.00
	Miscellaneous 5% of Materials Cost				1,662.50
	Sub-total for E			P	34,912.50
F.	Direct Cost (C + E)				102,945.99
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		10,294.60
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		8,235.68
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		6,073.81
J.	Total Unit Cost				58,492.04

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: B.5 Project Billboard/Signboard
Unit of Measurement: each
Output per hour:
Quantity: 2.00

Per D.O. 141, s. 2016

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.00	611.92	1,223.84
	b. Skilled Labor	1	2.00	443.20	886.40
	c. Unskilled Labor	2	2.00	342.24	1,368.96
	Sub-total for A			P	3,479.20
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	Sub-total for B			P	-
C.	Total (A+B)				3,479.20
D.	Output/day -	each/day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Ordinary Plywood 1/2" thk. x 4' x 8'	2.00	pc.	780.00	1,560.00
	b. Tarpaulin (4' x 8')	2.00	pc.	1,000.00	2,000.00
	c. Assorted Lumber	100.00	bd.ft.	38.00	3,800.00
	d. Assorted CW Nails	2.00	kg.	70.00	140.00
	Sub-total for E			P	7,500.00
F.	Direct Cost (C + E)				10,979.20
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,097.92
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		878.34
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		647.77
J.	Total Unit Cost				6,801.61

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: B.7 Occupation Safety and Health Program
Unit of Measurement: month
Output per hour:
Quantity: 8.13

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Safety Practioner	1	122.00	611.92	74,654.24
	b. First Aider	1	244.00	443.20	108,140.80
	Sub-total for A			P	182,795.04
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Warning Signs and Barricades				45,000.00
	Sub-total for B			P	45,000.00
C.	Total (A+B)				227,795.04
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rubber Boots (Long w/ steel toe, Black)	24.00	pair	400.00	9,600.00
	b. Working Gloves (Maong Material)	24.00	pair	15.00	360.00
	c. Rain Coats (Reinforced, Hip Length)	24.00	pc.	100.00	2,400.00
	d. Safety Hats	24.00	pc,	600.00	14,400.00
	Sub-total for E			P	26,760.00
F.	Direct Cost (C + E)				254,555.04
G.	Overhead, Contingencies and Miscellaneous		per D.O. 197, s. 2016		-
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		20,364.40
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		13,745.97
J.	Total Unit Cost				35,491.65

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: B.9 Mobilization & Demobilization
Unit of Measurement: L.S.
Output per hour:
Quantity: 1.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	Sub-total for A			P	-
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Low Bed Trailer	1	5.00	34,043.00	170,215.00
	b. Water Truck	2	5.00	19,600.00	196,000.00
	c. Backhoe	2	5.00	12,296.00	122,960.00
	d. Bulldozer	1	5.00	27,032.00	135,160.00
	e. DumpTruck	4	5.00	11,360.00	227,200.00
	f. Payloader	1	5.00	13,864.00	69,320.00
		1	5.00	17,384.00	86,920.00
	Sub-total for B			P	1,007,775.00
C.	Total (A+B)				1,007,775.00
D.	Output/day -	L.S./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				1,007,775.00
G.	Overhead, Contingencies and Miscellaneous			per D.O. 197, s. 2016	-
H.	Contractor's Profit(CP)			per D.O. 197, s. 2016	-
I.	Value Added Tax (VAT)			5% per D.O. 197, s. 2016	50,388.75
J.	Total Unit Cost				1,058,163.75

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 101(3)b2 Removal of Actual Structures/Obstruction
Unit of Measurement: sq.m.
Output per hour: 46.00
Quantity: 720.00

Existing PCCP (Varible Width)

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	1.96	611.92	1,197.23
	b. Unskilled Labor	2	1.96	342.24	1,339.20
	Sub-total for A			P	2,536.43
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe w/ Pavement Breaker (0.80 cu.m.)	1	1.96	15,984.80	31,274.61
	b. Payloader (1.50 cu.m.), LX80-2C	1	1.96	13,864.00	27,125.22
	c. Dump Truck (12 cu.yd.)	1	0.98	11,360.00	11,113.04
	Minor Tools 10% of Labor Cost				253.64
	Sub-total for B			P	69,766.51
C.	Total (A+B)				72,302.95
D.	Output/day 368.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				72,302.95
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		7,230.29
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		5,784.24
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		4,265.87
J.	Total Unit Cost				124.42

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 102(1) Unsuitable Excavation
Unit of Measurement: cu.m.
Output per hour: 20.00
Quantity: 6,920.00

For Disposal

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	43.25	611.92	26,465.54
	b. Unskilled Labor	3	43.25	342.24	44,405.64
	Sub-total for A			P	70,871.18
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck (12 cu.yd.)	2	43.25	11,360.00	982,640.00
	b. Backhoe (0.80 cu.m.)	1	43.25	12,296.00	531,802.00
	c. Payloader (1.50 cu.m.) - disposal site	1	4.33	13,864.00	59,961.80
	Minor Tools 10% of Labor Cost				7,087.12
	Sub-total for B			P	1,581,490.92
C.	Total (A+B)				1,652,362.10
D.	Output/day 160.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				1,652,362.10
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		165,236.21
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		132,188.97
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		97,489.36
J.	Total Unit Cost				295.85

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 103(1)a Structure Excavation
Unit of Measurement: cu.m.
Output per hour: 20.00
Quantity: 2,798.00

For Disposal

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	17.49	611.92	10,700.95
	b. Unskilled Labor	3	17.49	342.24	17,954.77
	Sub-total for A			P	28,655.72
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck (12 cu.yd.)	2	17.49	11,360.00	397,316.00
	b. Backhoe (0.80 cu.m.)	1	17.49	12,296.00	215,026.30
	Sub-total for B			P	612,342.30
C.	Total (A+B)				640,998.02
D.	Output/day 160.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				640,998.02
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		64,099.80
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		51,279.84
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		37,818.88
J.	Total Unit Cost				283.84

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 103(3) Foundation Fill
Unit of Measurement: cu.m.
Output per hour: 1.25
Quantity: 6.00

For RCPC Beddings

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.60	611.92	367.15
	b. Unskilled Labor	4	0.60	342.24	821.38
	Sub-total for A			P	1,188.53
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor (5 hp)	1	0.60	984.00	590.40
	b. Water Truck/Pump (16000 L)	1	0.01	19,600.00	117.60
	Minor Tools 10% of Labor Cost				118.85
	Sub-total for B			P	826.85
C.	Total (A+B)				2,015.38
D.	Output/day 10.00	cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Filling Materials (well-graded sand)	6.90	cu.m.	1,689.68	11,658.79
	Sub-total for E			P	11,658.79
F.	Direct Cost (C + E)				13,674.17
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,367.42
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		1,093.93
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		806.78
J.	Total Unit Cost				2,823.72

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description:	103(6)a Pipe Culverts and Drain Excavation	
Unit of Measurement:	cu.m.	
Output per hour:		20.00
Quantity:		30.00

	Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor					
	a. Const. Foreman		1	0.19	611.92	114.74
	b. Unskilled Labor		3	0.19	342.24	192.51
	Sub-total for A				P	307.25
	Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)					
	a. Dump Truck (12 cu.yd.)		2	0.19	11,360.00	4,260.00
	b. Backhoe (0.80 cu.m.)		1	0.19	12,296.00	2,305.50
	Minor Tools	10% of Labor Cost				30.72
	Sub-total for B				P	6,596.22
C.	Total (A+B)					6,903.47
D.	Output/day	160.00	cu.m./day			
	Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials					
	Sub-total for E				P	-
F.	Direct Cost (C + E)					6,903.47
G.	Overhead, Contingencies and Miscellaneous			10% per D.O. 197, s. 2016		690.35
H.	Contractor's Profit(CP)			8% per D.O. 197, s. 2016		552.28
I.	Value Added Tax (VAT)			5% per D.O. 197, s. 2016		407.30
J.	Total Unit Cost					285.11

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City
Item No./Description:	104(1)a Embankment from Roadway Excavation
Unit of Measurement:	cu.m.
Output per hour:	50.00
Quantity:	2,179.00

Compacted Volume

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work				
	a. Const. Foreman	1	4.52	611.92	2,766.75
	c. Unskilled Laborer	6	4.52	342.24	9,284.47
	Spreading and Compaction				
	a. Const. Foreman	1	5.45	611.92	3,333.43
	c. Unskilled Laborer	6	5.45	342.24	11,186.11
	Sub-total for A			P	26,570.77
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	For Excavation Work				
	a. Bulldozer, D6H Series II PSDS/DD	1	4.52	27,032.00	122,223.16
	b. Payloader (1.50 cu.m.)	1	4.52	13,864.00	62,685.04
	c. Dump Truck (12 cu.yd.)	2	4.52	11,360.00	102,726.78
	Spreading and Compaction				
	a. Motorized Road Grader (140 hp), G170A	1	5.45	17,384.00	94,699.34
	b. Vibratory Roller (10 mt), SD100C	1	5.45	14,768.00	80,448.68
	c. Water Truck/Pump (16000 L)	1	1.36	19,600.00	26,692.75
	Sub-total for B			P	489,475.74
C.	Total (A+B)				516,046.52
D.	Output/day 400.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				516,046.52
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		51,604.65
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		41,283.72
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		30,446.74
J.	Total Unit Cost				293.43

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 104(2)a Embankment from Borrow
Unit of Measurement: cu.m.
Output per hour: 150.00
Quantity: 30,123.00

Compacted Volume

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	25.10	611.92	15,360.72
	b. Leadman	3	25.10	561.36	42,274.62
	c. Unskilled Laborer	6	25.10	342.24	51,546.48
	used triple gang of labor and equipment				
	Sub-total for A			P	109,181.82
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G170A	3	25.10	17,384.00	1,309,145.58
	b. Vibratory Roller (10 mt), SD100C	3	25.10	14,768.00	1,112,141.16
	c. Water Truck/Pump (16000 L)	3	6.28	19,600.00	369,006.75
	Sub-total for B			P	2,790,293.49
C.	Total (A+B)				2,899,475.31
D.	Output/day 1,200.00	cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Common Borrow (with 25% Shrinkage Factor)	37,653.75	cu.m.	388.35	14,622,833.81
	Sub-total for E			P	14,622,833.81
F.	Direct Cost (C + E)				17,522,309.12
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,752,230.91
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		1,401,784.73
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,033,816.24
J.	Total Unit Cost				720.72

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 105(1)a Subgrade Preparation
Unit of Measurement: sq.m.
Output per hour: 300.00
Quantity: 3,706.00

Variable Width

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	1.54	611.92	944.91
	b. Unskilled Laborer	2	1.54	342.24	1,056.95
	Sub-total for A			P	2,001.86
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	1.54	17,384.00	26,843.79
	b. Vibratory Roller (10 mt), SD100DC	1	1.54	14,768.00	22,804.25
	c. Water Truck/Pump (16000 L)	1	0.39	19,600.00	7,566.42
	Sub-total for B			P	57,214.46
C.	Total (A+B)				59,216.32
D.	Output/day 2,400.00	sq.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				59,216.32
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		5,921.63
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		4,737.31
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		3,493.76
J.	Total Unit Cost				19.80

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 200(1) Aggregate Subbase Course
Unit of Measurement: cu.m.
Output per hour: 50.00
Quantity: 8,960.00

Variable thickness, Compacted Volume

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	22.40	611.92	13,707.01
	b. Unskilled Labor	2	22.40	342.24	15,332.35
	Sub-total for A			P	29,039.36
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	22.40	17,384.00	389,401.60
	b. Vibratory Roller (10 mt), SD100DC	1	22.40	14,768.00	330,803.20
	c. Water Truck/Pump (16000 L)	1	5.60	19,600.00	109,760.00
	Sub-total for B			P	829,964.80
C.	Total (A+B)				859,004.16
D.	Output/day 400.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Aggregate Subbase Course (w/ 15% Shrinkage Factor)	10,304.00	cu.m.	969.68	9,991,582.72
	Sub-total for E			P	9,991,582.72
F.	Direct Cost (C + E)				10,850,586.88
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,085,058.69
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		868,046.95
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		640,184.63
J.	Total Unit Cost				1,500.43

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 104(5) Boulder Fill
Unit of Measurement: cu.m.
Output per hour: 25.00
Quantity: 17,776.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	88.88	611.92	54,387.45
	b. Leadman	4	88.88	561.36	199,574.71
	b. Skilled Laborer	8	88.88	443.20	315,132.93
	c. Unskilled Laborer	32	88.88	342.24	973,385.32
	use quadruple gang of labor and equipment				
	Sub-total for A			P	1,542,480.40
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	4	88.88	12,296.00	4,371,473.92
	Minor Tools 10% of Labor				154,248.04
	Sub-total for B			P	4,525,721.96
C.	Total (A+B)				6,068,202.36
D.	Output/day 200.00	cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Boulders (with 5% wastage factor)	18,664.80	cu.m.	1,389.68	25,938,099.26
	Sub-total for E			P	25,938,099.26
F.	Direct Cost (C + E)				32,006,301.63
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		3,200,630.16
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		2,560,504.13
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,888,371.80
J.	Total Unit Cost				2,230.86

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 201(1) Aggregate Base Course
Unit of Measurement: cu.m.
Output per hour: 50.00
Quantity: 1,050.00

0.15 m. thk. (min.), Compacted Volume

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.63	611.92	1,606.29
	b. Unskilled Labor	2	2.63	342.24	1,796.76
	Sub-total for A			P	3,403.05
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	2.63	17,384.00	45,633.00
	b. Vibratory Roller (10 mt), SD100DC	1	2.63	14,768.00	38,766.00
	c. Water Truck/Pump (16000 L)	1	0.66	19,600.00	12,862.50
	Sub-total for B			P	97,261.50
C.	Total (A+B)				100,664.55
D.	Output/day 400.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Aggregate Base Course (w/ 15% Shrinkage Factor)	1,207.50	cu.m.	969.68	1,170,888.60
	Sub-total for E			P	1,170,888.60
F.	Direct Cost (C + E)				1,271,553.15
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		127,155.32
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		101,724.25
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		75,021.64
J.	Total Unit Cost				1,500.43

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 300(1) Gravel Surface Course
Unit of Measurement: cu.m.
Output per hour: 50.00
Quantity: 97.00

Compacted Volume

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.24	611.92	148.39
	b. Unskilled Labor	2	0.24	342.24	165.99
	Sub-total for A			P	314.38
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	0.24	17,384.00	4,215.62
	b. Vibratory Roller (10 mt), SD100DC	1	0.24	14,768.00	3,581.24
	c. Water Truck/Pump (16000 L)	1	0.06	19,600.00	1,188.25
	Sub-total for B			P	8,985.11
C.	Total (A+B)				9,299.49
D.	Output/day 400.00	cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Uncrushed Aggregate Surface Course (w/ 15% Shrinkage Factor)	111.55	cu.m.	1,024.68	114,303.05
	Sub-total for E			P	114,303.05
F.	Direct Cost (C + E)				123,602.54
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		12,360.25
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		9,888.20
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		7,292.55
J.	Total Unit Cost				1,578.80

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 311(1)c1 Portland Cement Concrete Pavement
Unit of Measurement: sq.m.
Output per hour: 70.00
Quantity: 1,225.00

0.15 m. thick, for shouldering

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.19	611.92	1,338.58
	b. Skilled Labor	4	2.19	443.20	3,878.00
	c. Unskilled Labor	12	2.19	342.24	8,983.80
	Sub-total for A			P	14,200.38
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer (5 cu.m.)	4	2.19	10,544.00	92,260.00
	b. Concrete Vibrator	2	2.19	730.00	3,193.75
	c. Concrete Batch Plant (30 cu.m.)	1	2.19	14,076.00	30,791.25
	d. Payloader (1.50 cu.m.), LX80-2C	1	2.19	13,864.00	30,327.50
	e. Concrete Screeder (5.5 hp)	1	2.19	4,360.00	9,537.50
	f. Water truck/Pump (16000 L)	1	2.19	19,600.00	42,875.00
	g. Concrete Saw (7.5 hp), 14" Blade Ø	1	2.19	261.04	571.03
	h. Bar Cutter, Single Phase	1	0.22	1,758.00	384.56
	Minor Tools 5% of Labor				710.02
	Sub-total for B			P	210,650.61
C.	Total (A+B)				224,850.98
D.	Output/day 560.00	sq.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Reinforcing Steel Bar	526.75	kg.	38.00	20,016.50
	b. Curing Compound	355.25	L	35.00	12,433.75
	c. Asphalt Sealant	147.00	L	100.00	14,700.00
	d. Steel Forms (Rental)	563.50	m	52.00	29,302.00
	e. Sand	154.96	cu.m.	1,689.68	261,837.04
	f. Gravel	281.75	cu.m.	1,389.68	391,542.34
	g. Cement	2,682.75	bag	285.00	764,583.75
	h. Concrete Saw (Diamond Blade 14" Ø)	0.18	pc.	2,500.00	459.38
	i. Pipe Sleeve, 2" Ø	8.70	m.	61.00	530.55
	j. Grease/Tar	10.66	L	112.50	1,198.97
	Sub-total for E			P	1,496,604.27
F.	Direct Cost (C + E)				1,721,455.25
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		172,145.52
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		137,716.42
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		101,565.86
J.	Total Unit Cost				1,741.13

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 311(1)e1 Portland Cement Concrete Pavement
Unit of Measurement: sq.m.
Output per hour: 57.50
Quantity: 10,160.00 *0.28 m. thick, includes widening*

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	22.09	611.92	13,515.45
	b. Skilled Labor	4	22.09	443.20	39,155.76
	c. Unskilled Labor	12	22.09	342.24	90,708.48
	Sub-total for A			P	143,379.69
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Transit Mixer (5 cu.m.)	4	22.09	10,544.00	931,539.48
	b. Concrete Vibrator	2	22.09	730.00	32,246.96
	c. Concrete Batch Plant (30 cu.m.)	1	22.09	14,076.00	310,896.00
	d. Payloader (1.50 cu.m.), LX80-2C	1	22.09	13,864.00	306,213.57
	e. Concrete Screeder (5.5 hp)	1	22.09	4,360.00	96,299.13
	f. Water truck/Pump (16000 L)	1	22.09	19,600.00	432,904.35
	g. Concrete Saw (7.5 hp), 14" Blade Ø	1	22.09	261.04	5,765.58
	h. Bar Cutter, Single Phase	1	2.21	1,758.00	3,882.89
	Minor Tools 5% of Labor				7,168.98
	Sub-total for B			P	2,126,916.93
C.	Total (A+B)				2,270,296.62
D.	Output/day 460.00	sq.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	5,080.00	kg.	38.00	193,040.00
	b. Curing Compound	2,946.40	L	35.00	103,124.00
	c. Asphalt Sealant	1,727.20	L	100.00	172,720.00
	d. Steel Forms (Rental)	4,673.60	m	60.00	280,416.00
	e. Sand	1,564.64	cu.m.	1,689.68	2,643,740.92
	f. Gravel	2,844.80	cu.m.	1,389.68	3,953,361.66
	g. Cement	27,025.60	bag	285.00	7,702,296.00
	h. Concrete Saw (Diamond Blade 14" Ø)	1.52	pc.	2,500.00	3,810.00
	i. Pipe Sleeve, 2" Ø	79.25	m.	61.00	4,834.13
	j. Grease/Tar	79.25	L	112.50	8,915.40
	Sub-total for E			P	15,066,258.11
F.	Direct Cost (C + E)				17,336,554.72
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,733,655.47
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		1,386,924.38
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,022,856.73
J.	Total Unit Cost				2,114.17

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 404(1)a Reinforcing Steel
Unit of Measurement: kg.
Output per hour: 180.00
Quantity: 139,248.00

Grade 40, For Line Canal

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	96.70	611.92	59,172.66
	b. Skilled Labor	2	96.70	443.20	85,714.88
	c. Unskilled Labor	8	96.70	342.24	264,756.86
	Sub-total for A			P	409,644.41
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Bar Cutter	1	48.35	1,758.00	84,999.30
	b. Bar Bender	1	48.35	2,812.00	135,960.20
	c. Cargo Truck (9 - 10 mt.)	1	14.51	9,696.00	140,640.48
	Sub-total for B			P	361,599.98
C.	Total (A+B)				771,244.39
D.	Output/day 1,440.00	ln.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Tie Wire (2% of RSB)	2,924.21	kg.	80.00	233,936.64
	b. Reinforcing Steel Bar, Grade 40 (with 5% wastage)	146,210.40	kg.	38.00	5,555,995.20
	Sub-total for E			P	5,789,931.84
F.	Direct Cost (C + E)				6,561,176.23
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		656,117.62
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		524,894.10
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		387,109.40
J.	Total Unit Cost				58.38

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 405(1)a3 Structural Concrete, Class "A"
Unit of Measurement: cu.m.
Output per hour: 1.40
Quantity: 1,483.00

For RCBC and Lined Canal

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	132.41	611.92	81,024.76
	b. Skilled Labor	4	132.41	443.20	234,737.71
	c. Unskilled Labor	8	132.41	342.24	362,529.94
	Installation/Removal of Formworks				
	b. Skilled Labor	4	132.41	443.20	234,737.71
	c. Unskilled Labor	8	132.41	342.24	362,529.94
	Sub-total for A			P	1,275,560.08
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	132.41	1,376.00	182,197.14
	b. Concrete Vibrator	1	132.41	730.00	96,659.82
	c. Water Truck/Pump (16000 L)	1	13.24	19,600.00	259,525.00
	Minor Tools 5% of Labor				63,778.00
	Sub-total for B			P	602,159.97
C.	Total (A+B)				1,877,720.05
D.	Output/day 11.20	ln.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Lumber, Good - 4 uses	103,810.00	bd.ft.	37.00	960,242.50
	b. Marine Plywood (1/2" x 4' x 8') - 4 uses	2,372.80	pc.	880.00	522,016.00
	c. Assorted CWN (1kg./100 bd.ft. of Lumber)	1,038.10	kg.	65.00	67,476.50
	d. Cement	14,088.50	bag	285.00	4,015,222.50
	e. Sand	741.50	cu.m.	1,689.68	1,252,897.72
	f. Gravel	1,483.00	cu.m.	1,389.68	2,060,895.44
	Sub-total for E			P	8,878,750.66
F.	Direct Cost (C + E)				10,756,470.71
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		1,075,647.07
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		860,517.66
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		634,631.77
J.	Total Unit Cost				8,986.69

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 407(8) Lean Concrete
Unit of Measurement: cu.m.
Output per hour: 1.40
Quantity: 122.22

For RCBC

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	10.91	611.92	6,677.58
	b. Skilled Labor	1	10.91	443.20	4,836.42
	c. Unskilled Labor	2	10.91	342.24	7,469.39
	Sub-total for A			P	18,983.39
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	10.91	1,376.00	15,015.60
	b. Concrete Vibrator	1	10.91	730.00	7,966.13
	c. Water Truck	1	1.09	19,600.00	21,388.50
	Sub-total for B			P	44,370.23
C.	Total (A+B)				63,353.61
D.	Output/day 11.20	kg./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	1,161.09	bag	285.00	330,910.65
	b. Sand	61.11	cu.m.	1,689.68	103,256.34
	c. Gravel	122.22	cu.m.	1,389.68	169,846.69
	Sub-total for E			P	604,013.68
F.	Direct Cost (C + E)				667,367.29
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		66,736.73
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		53,389.38
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		39,374.67
J.	Total Unit Cost				6,765.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 500(1)b3 Pipe Culverts
Unit of Measurement: ln.m.
Output per hour: 1.00
Quantity: 38.00

Class IV, Wall B, AASHTO M - 170 - 85

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.71	611.92	1,656.77
	b. Skilled Labor	2	2.71	443.20	2,399.93
	c. Unskilled Labor	4	2.71	342.24	3,706.46
	Sub-total for A			P	7,763.16
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe (0.80 cu.m.)	1	1.38	12,296.00	16,937.74
	b. Plate Compactor (5 hp)	1	1.38	984.00	1,355.46
	Minor Tools 10% of Labor				776.32
	Sub-total for B			P	19,069.52
C.	Total (A+B)				26,832.68
D.	Output/day 8.00	ln.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	41.04	bag	285.00	11,696.40
	b. Sand	2.32	cu.m.	1,689.68	3,916.68
	c. RC Pipes (910 mm. dia.)	38.00	cu.m.	1,665.00	63,270.00
	d. Sand Bedding/Selected Sandy Soil	4.86	m.	1,689.68	8,218.60
	Sub-total for E			P	87,101.68
F.	Direct Cost (C + E)				113,934.36
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		11,393.44
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		9,114.75
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		6,722.13
J.	Total Unit Cost				3,714.86

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 503(1) Metal Frames & Grating
Unit of Measurement: set
Output per hour: 1.00
Quantity: 68.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	34.00	611.92	20,805.28
	b. Skilled Labor	1	34.00	443.20	15,068.80
	c. Unskilled Labor	1	34.00	342.24	11,636.16
	Sub-total for A			P	47,510.24
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Bar Cutter, Single Phase	1	17.00	1,758.00	29,886.00
	b. Welding Machine (300 A), Gas/Diesel Driven	1	34.00	2,968.00	100,912.00
	Sub-total for B			P	130,798.00
C.	Total (A+B)				178,308.24
D.	Output/day 8.00	ln.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. 65 mm x 5 mm Flat Bar	4,260.68	kg.	48.00	204,512.45
	b. 6 mm x 957 mm Twisted Cross Rod	84.59	kg.	48.00	4,060.42
	c. 75 mm x 75 mm x 9 mm Angle Bar	2,608.48	kg.	48.00	125,207.04
	d. Welding Rod	3.47	kg.	169.00	586.09
	Sub-total for E			P	334,366.00
F.	Direct Cost (C + E)				512,674.24
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		51,267.42
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		41,013.94
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		30,247.78
J.	Total Unit Cost				9,341.23

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City
Item No./Description:	505(2)a Grouted Riprap, Class "A"
Unit of Measurement:	cu.m.
Output per hour:	1.25
Quantity:	12.00

For Slope Protection

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	1.20	611.92	734.30
	c. Skilled Labor	2	1.20	443.20	1,063.68
	d. Unskilled Labor	8	1.20	342.24	3,285.50
	Sub-total for A			P	5,083.49
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	1.20	1,376.00	1,651.20
	b. Water Truck/Pump (16000 L)	1	0.06	19,600.00	1,176.00
	Minor Tools 5% of Labor				254.17
	Sub-total for B			P	3,081.37
C.	Total (A+B)				8,164.86
D.	Output/day 10.00	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	36.00	bag	285.00	10,260.00
	b. Sand	3.00	cu.m.	1,689.68	5,069.04
	c. Gravel	0.18	cu.m.	1,389.68	250.14
	d. Weep Holes (PVC)	3.60	m.	50.83	183.00
	e. Filter Cloth	0.18	sq.m.	160.00	28.80
	f. Boulders (15 - 25 kg.)	12.60	cu.m.	1,389.68	17,509.97
	Miscellaneous 1% of Materials Cost				333.01
	Sub-total for E			P	33,633.96
F.	Direct Cost (C + E)				41,798.82
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		4,179.88
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		3,343.91
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		2,466.13
J.	Total Unit Cost				4,315.73

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description:	506(1) Stone Masonry	
Unit of Measurement:	cu.m.	
Output per hour:	1.60	
Quantity:	218.00	*For Slope Protection*

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	17.03	611.92	10,421.76
	b. Skilled Labor	2	17.03	443.20	15,096.50
	c. Unskilled Labor	8	17.03	342.24	46,630.20
	Sub-total for A			P	72,148.46
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	17.03	1,376.00	23,435.00
	b. Water Truck/Pump (16000 L)	1	0.85	19,600.00	16,690.63
	c. Backhoe (Wheel Type 0.28 cu.m.)	1	1.70	7,376.00	12,562.25
	Minor Tools 5% of Labor				3,607.42
	Sub-total for B			P	56,295.30
C.	Total (A+B)				128,443.76
D.	Output/day 12.80	cu.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	1,199.00	bag	285.00	341,715.00
	b. Sand	65.40	cu.m.	1,689.68	110,505.07
	c. Gravel	4.36	cu.m.	1,389.68	6,059.00
	d. Weep Holes (PVC)	65.40	m.	50.83	3,324.50
	e. Filter Cloth	3.27	sq.m.	160.00	523.20
	f. Boulders	228.90	cu.m.	1,389.68	318,097.75
	Miscellaneous 1% of Materials Cost				7,802.25
	Sub-total for E			P	788,026.77
F.	Direct Cost (C + E)				916,470.53
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		91,647.05
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		73,317.64
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		54,071.76
J.	Total Unit Cost				5,208.75

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City
Item No./Description:	611(1) Trees (Furnishing and Transplanting)
Unit of Measurement:	each
Output per hour:	1.00
Quantity:	68.00

For Center Line (Separation & Edge Lines)

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	8.50	611.92	5,201.32
	b. Skilled Labor	1	8.50	443.20	3,767.20
	c. Unskilled Labor	2	8.50	342.24	5,818.08
	Sub-total for A			P	14,786.60
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (9-10 mt)	1	8.50	9,696.00	82,416.00
	b. Backhoe (0.80 cu.m.)	1	8.50	12,296.00	104,516.00
	c. Water Truck/Pump (16000 L)	1	4.25	19,600.00	83,300.00
	Minor Tools 10% of Labor				1,478.66
	Sub-total for B			P	271,710.66
C.	Total (A+B)				286,497.26
D.	Output/day 8.00	sq.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Trees (Delivered at Site)	68.00	pc.	33.00	2,244.00
	b. Fertilizers	204.00	kg.	26.00	5,304.00
	c. Bamboo Pole	204.00	pc.	10.00	2,040.00
	d. Polyethylene Sheets	204.00	sq.m.	40.00	8,160.00
	e. Tie Wire	17.00	kg.	90.00	1,530.00
	Sub-total for E			P	19,278.00
F.	Direct Cost (C + E)				305,775.26
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		30,577.53
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		24,462.02
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		18,040.74
J.	Total Unit Cost				5,571.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 612(1) Reflectorized Thermoplastic Pavement Markings (White)
Unit of Measurement: sq.m.
Output per hour: 25.00
Quantity: 545.00

For Center Line (Separation & Edge Lines)

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.73	611.92	1,667.48
	b. Skilled Labor	2	2.73	443.20	2,415.44
	c. Unskilled Labor	6	2.73	342.24	5,595.62
	Sub-total for A			P	9,678.55
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (2-5 mt)	1	2.73	6,264.00	17,069.40
	b. Applicator Machine	1	2.73	750.00	2,043.75
	c. Kneading Machine	1	2.73	1,500.00	4,087.50
	Minor Tools 10% of Labor				967.85
	Sub-total for B			P	24,168.50
C.	Total (A+B)				33,847.05
D.	Output/day 200.00	sq.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (White)	177.13	bag	1,585.00	280,743.13
	b. Glass Beads	17.99	bag	2,500.00	44,962.50
	c. Primer	65.40	L	160.00	10,464.00
	d. LPG (50 kg)	2.18	cyl.	3,450.00	7,521.00
	e. LPG (12 kg)	1.09	cyl.	828.00	902.52
	f. Calsumine	68.13	kg.	100.00	6,812.50
	Miscellaneous 5% of Materials Cost				17,570.28
	Sub-total for E			P	368,975.93
F.	Direct Cost (C + E)				402,822.98
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		40,282.30
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		32,225.84
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		23,766.56
J.	Total Unit Cost				915.78

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 612(2) Reflectorized Thermoplastic Pavement Markings (Yellow)
Unit of Measurement: sq.m.
Output per hour: 25.00
Quantity: 40.00

For Barrier Lines

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.20	611.92	122.38
	b. Skilled Labor	2	0.20	443.20	177.28
	c. Unskilled Labor	6	0.20	342.24	410.69
	Sub-total for A			P	710.35
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (2-5 mt)	1	0.20	6,264.00	1,252.80
	b. Applicator Machine	1	0.20	750.00	150.00
	c. Kneading Machine	1	0.20	1,500.00	300.00
	Minor Tools 10% of Labor				71.04
	Sub-total for B			P	1,773.84
C.	Total (A+B)				2,484.19
D.	Output/day 200.00	sq.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Thermoplastic Paint (Yellow)	13.00	bag	1,800.00	23,400.00
	b. Glass Beads	1.32	bag	2,500.00	3,300.00
	c. Primer	4.80	L	175.00	840.00
	d. LPG (50 kg)	0.16	cyl.	3,450.00	552.00
	e. LPG (12 kg)	0.08	cyl.	828.00	66.24
	f. Calsumine	5.00	kg.	100.00	500.00
	Miscellaneous 5% of Materials Cost				1,432.91
	Sub-total for E			P	30,091.15
F.	Direct Cost (C + E)				32,575.34
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		3,257.53
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		2,606.03
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,921.95
J.	Total Unit Cost				1,009.02

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: Construction of By-Pass and Diversion Roads - Zamboanga City Diversion Road, Mampang - Sta. Catalina Section, Zamboanga City

Item No./Description: 715(1) Separation Geotextile
Unit of Measurement: sq.m.
Output per hour: 100.00
Quantity: 10,048.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	12.56	611.92	7,685.72
	b. Skilled Labor	2	12.56	443.20	11,133.18
	c. Unskilled Labor	8	12.56	342.24	34,388.28
	Sub-total for A			P	53,207.17
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (9-10 mt)	1	12.56	9,696.00	121,781.76
	Sub-total for B			P	121,781.76
C.	Total (A+B)				174,988.93
D.	Output/day 800.00	sq.m./day			
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filter Cloth	10,550.40	sq.m.	160.00	1,688,064.00
	Sub-total for E			P	1,688,064.00
F.	Direct Cost (C + E)				1,863,052.93
G.	Overhead, Contingencies and Miscellaneous		10% per D.O. 197, s. 2016		186,305.29
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		149,044.23
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		109,920.12
J.	Total Unit Cost				229.73