

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 :		Appropriation : P 174,450,000.00
Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO		Source of Funds : CY-2018
PROJECT CATEGORY : NATIONAL ROAD		Issued Obligated Authority Released :
PROJECT DESCRIPTION :		Cal. Days to Complete : 225.00 Cal. Days
Scope of Work : Paved to Concrete		Desirable Starting Date : Upon Approval
Road Width : 6.70 m.		Mode of Implementation :
Roadbed Width : 12.00 m.		
Subbase Course : 0.30 mtrs thick		
Surface Course : 0.15 mtrs thick		
NET LENGTH :		NET LENGTH : Sta. 1945+460.00 - Sta. 1947+170.33
		Chainage 0000.00 - Chainage 2640.00
		Net Length : 6.70 lane km
		Net Length : 3,350.33 In.m. / 3,350 km

TECHNICAL PERSONNEL REQUIRED :

DESCRIPTION	NO.	DESCRIPTION	NO.
Dumptruck (10 Wheeler)	10	Water Pump	1
Bulldozer	2	Portable Screenshot	1
Backhoe	3	Concrete Vibrator	2
Road Grader	2	Concrete Cutter	2
Road Roller	2	Bar Cutter	1
Pay Loader	4	Bar Bender	1
Water Truck	2	Conc. Mixer (1-Bagger)	2
Water Tank	2	Plate Compactor	1
Transit Mixer	4		

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
101(4c)	Removal of Existing RCPC	0.011	In.m	38.00	14,382.42	378.48
102(2)	Surplus Common Excavation	23.209	cu.m.	174,987.00	31,553,692.30	180.32
103(3)	Foundation Fill	0.016	cu.m.	21.00	21,161.66	1,007.70
103(6)a	Pipe Culvert and Drain Excavation	0.023	cu.m.	136.00	31,295.73	230.12
104(1)a1	Embankment from Roadway Excavation	6.250	cu.m.	36,693.00	8,497,520.15	231.58
105 (1)a	Subgrade Preparation	0.245	sq.m.	21,717.00	332,961.42	15.33
200 (1)	Aggregate Subbase Course	17.527	cu.m.	13,032.00	23,828,894.71	1,828.49
300 (1)	Aggregate Surface Course	0.600	cu.m.	476.00	815,512.24	1,713.26
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	28.896	sq.m.	24,056.00	39,285,855.25	1,633.10
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	3.510	sq.m	5,322.00	4,771,866.25	896.63
404(1)a	Reinforcing Steel Bar, Grade 40	0.900	kg.	24,514.00	1,224,036.45	49.93
405 (1) a3	Structural Concrete, Class A	3.227	cu.m	606.00	4,387,058.04	7,239.37
500(1)b3	Pipe Culvert & Storm Drain	0.385	In.m	139.00	523,027.31	3,762.79
505(5)	Grouted Riprap, Class A	0.151	cu.m	44.00	204,921.73	4,657.31
506(1)	Stone Masonry	0.579	cu.m	166.00	786,713.68	4,739.24
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	0.354	sq.m	660.00	481,017.44	728.81
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	0.055	sq.m	93.00	75,224.08	808.86
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	2.911	sq.m	27,034.00	3,958,103.63	146.41
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	0.278	sq.m	2,990.00	378,121.56	126.46

622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	1.183	ln.m	3,055.00	1,607,867.48	526.31
622(3)a	Bio-Engineered Erosion Control System Vegetation	7.866	sq.m	30,024.00	10,693,491.96	356.16
A.1.1(3)	Const. of Field Office for the Engineer	0.299	LS	1.00	406,002.49	406,002.49
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	0.181	LS	1.00	246,143.32	246,143.32
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	0.251	L.S	1.00	341,400.00	341,400.00
B.5	Project Billboard	0.003	Unit	2.00	4,420.90	2,210.45
B.7	Occupational Safety & Health Program	0.133	L.S	1.00	180,921.00	180,921.00
B.9	Mobilization and Demobilization	0.876	L.S	1.00	1,190,360.00	1,190,360.00
B.4(1)	Construction Survey and Staking	0.093	Km.	3.35	126,194.92	37,666.41
TOTAL		100.000			P 135,953,785.68	

Name of Project : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Station Limits : Sta. 1946+460.00 - Sta. 1947+170.33
Chainage 0000.00 - Chainage 2640.00

BREAKDOWN OF ESTIMATED EXPENDITURES		% OF TOTAL	AMOUNT
I. ESTIMATED COST			
A. DIRECT COST			
A.1 Materials	47.60	83,042,387.12	
A.2 Labor	1.52	2,649,799.12	
A.3 Equipment Expenses	28.82	50,275,981.87	
SUB-TOTAL (DIRECT COST)		P 77.94	135,968,168.10
B. INDIRECT COST (Per DO # 197 s. 2016)			
B.1 Overhead, Contingency & Misc. (10% Max. of D.C.)	7.68	13,400,934.38	
B.2 Profit (8% Max. D.C.)	6.15	10,735,221.18	
C. VAT (5% of D.C. and I.C. per D.O. # 197)	4.59	8,005,216.18	
SUB-TOTAL (CONTRACT COST)		P 96.37	168,109,539.84
II. ESTIMATED GOVERNMENT EXPENDITURES			
1 Engineering and Administrative Overhead (3.5%)	3.50	6,105,750.00	
2 Detailed Engineering (1%)	0.13	234,710.16	
3 Reserved for the Payment of RROW)	0.00		
4 Physical Reserved			
TOTAL ESTIMATED PROJECT COST		100.00	P 174,450,000.00

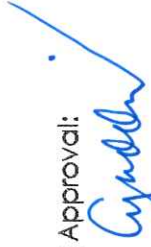
Prepared by:


JERALD R. BARRERA
Engineer II

Submitted by:


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMBABO D. DIA
Assistant Regional Director

APPROVED:


JORGE H. SEBASTIAN
Regional Director

APPROVED BUDGET FOR THE CONTRACT

Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Project Name and Location

Challange 0000.00 - Challenge 2540.00

Contract Duration : 225.00 Calendar Days

Item No.	Description	Quantity	Unit	Estimated Direct Cost	OCM	PROFIT	%	VALUE	VAT	TOTAL INDIRECT COST	TOTAL COST	TOTAL COST
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) = (5)/(8)	(10) = ((5)+(9))*5%	(11) = (9) + (10)	(12) = (5) + (11)	(13) = (12) / (3)
PART A FACILITIES FOR THE ENGINEER												
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	406,002.49	10.00	8.00	18.00		23,954.15	97,034.60	503,037.09	503,037.09
A.1.1(1)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	246,143.32	0.00	0.00	0.00		-	12,307.17	258,450.49	258,450.49
A.1.2(5)	Operation & Maintenance of Gov'l. Service Vehicle	1.00	LS	341,400.00	0.00	0.00	0.00		-	17,070.00	358,470.00	358,470.00
TOTAL OF PART A												
PART B OTHER GENERAL REQUIREMENTS												
B.5	Project Billboard	2.00	Unit	4,420.90	10.00	8.00	18.00		795.76	260.83	5,477.50	2,738.75
B.7	Occupational Safety & Health Program	1.00	LS	180,921.00	0.00	8.00	8.00		9,769.73	24,434.41	205,164.41	205,164.41
B.9	Mobilization and Demobilization	1.00	LS	1,190,360.00	0.00	0.00	0.00		-	59,518.00	1,249,878.00	1,249,878.00
B.4(1)	Construction Survey and Staking	3.35	km.	126,194.92	10.00	8.00	18.00		22,715.09	7,445.50	136,355.50	46,668.69
TOTAL OF PART B												
PART C EARTHWORKS												
101 (4c)	Removal of Existing RCP	38.00	linm	14,382.42	10.00	8.00	18.00		2,588.84	848.56	17,819.82	468.94
102(2)	Surplus Common Excavation	174,987.00	cum.	31,553,692.30	10.00	8.00	18.00		5,679,664.61	1,861,667.85	39,095,024.75	223,42
103(6)	Pipe Culvert and Drain Excavation	21.00	cum.	21,161.66	10.00	8.00	18.00		3,809.10	1,248.54	26,219.29	1,248.54
104(1a)	Embankment from Roadway Excavation	36,693.00	cum.	8,497,520.15	10.00	8.00	18.00		1,529,553.63	501,353.69	10,528,427.47	286.93
105 (1a)	Subgrade Preparation	21,717.00	sqm.	332,961.42	10.00	8.00	18.00		59,933.06	19,644.72	412,539.20	19.00
TOTAL OF PART C												
PART D SUBBASE AND BASE COURSE												
200 (1)	Aggregate Subbase Course	13,032.00	cum.	23,828,894.71	10.00	8.00	18.00		4,289,201.05	1,405,904.79	29,524,000.55	2,265.50
TOTAL OF PART D												
PART E SURFACE COURSES												
300 (1)	Aggregate Surface Course	476.00	cum.	815,512.24	10.00	8.00	18.00		146,792.20	48,115.22	1,010,419.66	2,122.73
311(1)a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	24,056.00	sqm.	39,285,855.25	10.00	8.00	18.00		7,071,453.94	2,317,865.46	48,675,174.65	2,023.41
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	5,322.00	sqm.	4,771,866.25	10.00	8.00	18.00		858,935.92	281,540.11	5,912,342.28	1,110.92
TOTAL OF PART E												
PART F BRIDGE CONSTRUCTION												
404(1)a	Reinforcing Steel Bar, Grade 40	24,514.00	kg.	1,224,036.45	10.00	8.00	18.00		220,326.56	72,218.15	1,516,581.16	61.87
405 (1) a3	Structural Concrete, Class A	606.00	cum.	4,387,058.04	10.00	8.00	18.00		789,670.45	258,836.42	5,435,564.91	8,969.58
TOTAL OF PART F												
PART G DRAINAGE AND SLOPE PROTECTION STRUCTURES												
500(1)b3	Pipe Culvert & Storm Drain	139.00	linm	523,027.31	10.00	8.00	18.00		94,144.92	30,858.61	648,030.83	4,662.09
505(5)	Grouted Riprap, Class A	44.00	cum.	204,921.73	10.00	8.00	18.00		36,885.91	12,090.38	253,898.02	5,770.41
506(1)	Stone Masonry	1166.00	cum.	786,713.68	10.00	8.00	18.00		141,608.46	46,416.11	974,738.25	5,871.92
TOTAL OF PART G												
PART H MISCELLANEOUS STRUCTURES												
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	660.00	sqm.	481,017.44	10.00	8.00	18.00		86,583.14	28,380.03	595,980.61	903.00
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	93.00	sqm.	75,224.05	10.00	8.00	18.00		13,540.33	4,438.22	93,202.63	1,002.18
622(1)b	Bio-Engineered Erosion Control Net (CGN 700)	27,034.00	sqm.	3,958,103.63	10.00	8.00	18.00		712,458.65	233,528.11	4,904,090.40	181.40
622(1)a	Bio-Engineered Erosion Control Net (CGN 400)	2,990.00	sqm.	378,121.56	10.00	8.00	18.00		68,061.88	22,309.17	468,492.61	156.69
622(2)b	Bio-Engineered Erosion Control Log/Fascine Control System	3,055.00	linm	1,607,867.48	10.00	8.00	18.00		289,416.15	94,864.18	1,992,147.80	652.09
622(3)a	Bio-Engineered Erosion Control System Vegetation	30,024.00	sqm.	10,693,491.96	10.00	8.00	18.00		1,924,828.55	630,916.03	13,249,236.53	441.29
TOTAL OF PART H												
TOTAL												
				17,193,826.14					3,094,888.70	1,014,435.74	4,109,324.45	21,303,150.58
				135,968,168.10					24,136,155.56	6,599,311.39	32,141,371.74	168,109,539.84

APPROVED:

Jorge U. Sebastian, Jr., CESO III
Regional Director

CAYAMOMBAO D. DIA
Assistant Regional Director

BELEN A. SAPALIDA
Head TWG, BAC

Prepared by:

SUMMARY

Name of Project : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No.	Description	Quantity	Unit	Labor	Equipment	Materials	OCM	Profit	VAT	TOTAL
102(2)	Surplus Common Excavation	174,987.00	cum.	430,067.01	31,123,625.29	-	3,155,369.23	2,524,295.38	1,861,667.85	39,095,024.75
101(4c)	Removal of Existing RPC	38.00	ln.m	1,297.26	13,085.16	-	1,438.24	1,150.59	848.56	17,819.82
103(3)	Foundation Fill	21.00	cum.	4,159.85	2,478.00	14,523.81	2,116.17	1,692.93	1,248.54	26,219.29
103(6)a	Pipe Culvert and Drdn Excavation	136.00	cum.	1,392.84	29,902.88	-	3,129.57	2,503.66	1,846.45	38,775.41
104(1)a1	Embankment from Roadway Excavation	36,693.00	cum.	217,627.28	8,279,892.87	-	849,752.02	679,801.61	501,353.69	10,528,427.47
105 (1)a	Subgrade Preparation	21,717.00	sq.m.	11,730.80	321,230.63	-	33,296.14	26,636.91	19,644.72	412,539.20
200 (1)	Aggregate Subbase Course	13,032.00	cum.	42,236.71	1,635,516.00	22,151,142.00	2,382,889.47	1,906,311.58	1,405,904.79	29,524,000.55
300 (1)	Aggregate Surface Course	476.00	cum.	1,542.72	42,245.00	771,724.52	81,551.22	65,240.98	48,115.22	1,010,419.66
311(1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	24,056.00	sq.m.	338,305.74	5,018,480.80	33,929,068.71	3,928,585.52	3,142,868.42	2,317,865.46	48,675,174.65
311(1)a	Portland Cement Concrete Pavement, 0.15m. Thick	5,322.00	sq.m.	40,236.07	624,599.17	4,107,031.02	477,186.62	381,749.30	281,540.11	5,912,342.28
404(1)a	Reinforcing Steel Bar, Grade 40	24,514.00	kg.	72,116.10	54,894.34	1,097,026.01	122,403.65	97,922.92	72,218.15	1,516,581.16
405 (1) a3	Structural Concrete, Class A	606.00	cum.	521,233.59	259,155.25	3,606,669.20	438,705.80	350,964.64	258,836.42	5,435,564.91
500(1)b3	Pipe Culvert & Storm Drdn	139.00	ln.m	49,818.99	120,351.90	352,856.42	52,302.73	41,842.18	30,858.61	648,030.83
505(5)	Grouled Riprap, Class A	44.00	cum.	18,639.46	41,482.37	144,799.90	20,492.17	16,393.74	12,090.38	253,898.02
506(1)	Stone Masonry	166.00	cum.	56,257.27	53,242.49	677,213.92	78,671.37	62,937.09	46,416.11	974,738.25
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	660.00	sq.m.	11,720.81	39,421.80	429,874.83	48,101.74	38,481.40	28,380.03	595,980.61
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	93.00	sq.m.	1,651.57	5,554.89	68,017.62	7,522.41	6,017.93	4,438.22	93,202.63
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	27,034.00	sq.m.	226,398.94	353,806.39	3,377,898.30	395,810.36	316,648.29	233,528.11	4,904,090.40
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	2,990.00	sq.m.	25,040.05	39,131.51	313,950.00	37,812.16	30,249.72	22,309.17	468,492.61
622(2)b	Bio-Engineered Erosion Coco Logs/Fascine Control System	3,055.00	ln.m	85,281.34	8,528.13	1,514,058.00	160,786.75	128,629.40	94,864.18	1,992,147.80
622(3)a	Bio-Engineered Erosion Control System Vegetation	30,024.00	sq.m.	77,846.23	968,934.53	9,646,711.20	1,069,349.20	855,479.36	630,916.03	13,249,236.53
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	53,245.60	31,804.56	320,952.33	40,600.25	32,480.20	23,954.15	503,037.09
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS	-	-	246,143.32	-	-	12,307.17	258,450.49
A.1.2(5)	Operation & Maintenance of Gov't. Service Vehicle	1.00	L.S	99,720.00	-	241,680.00	-	-	17,070.00	358,470.00
B.5	Project Billboard	2.00	Unit	434.90	-	3,986.00	442.09	353.67	260.83	5,477.50
B.7	Occupational Safety & Health Program	1.00	L.S	168,561.00	-	12,360.00	-	14,473.68	9,769.73	205,164.41
B.9	Mobilization and Demobilization	1.00	L.S	-	1,190,360.00	-	-	-	59,518.00	1,249,878.00
B.4(1)	Construction Survey and Staking	3.35	Km.	93,237.00	18,257.91	14,700.00	12,619.49	10,095.59	7,445.50	156,355.50
TOTAL										
				2,649,799.12	50,275,981.87	83,042,387.12	13,400,934.38	10,735,221.18	8,005,216.18	168,109,539.84

Name of Project	: Paving of Unpaved Roads - Teritary Roads Sindangan - Bayog - Lakewood Road - (S01041MN) Zambonga del Norte 1st DEO
Net Length	: 3,350.33 m.m.

Item No.	Description	Quantity	Unit	DURATION # OF DAYS	WEEKS (6 WORKING DAYS)
102(2)	Suplus Common Excavation	174.987.00	cum.	91.14	
101 (4c)	Removal of Existing RPC	38.00	lm	0.79	
103(3)	Foundation Fill	21.00	cum.	2.10	
103(6)c	Pipe Culvert and Drain Excavation	136.00	cum.	0.85	
104(1)c1	Embankment from Roadway Excavation	36,693.00	cum.	91.73	
105 (1)c	Subgrade Preparation	21,717.00	sqm.	9.05	
200 (1)	Aggregate Subbase Course	13,032.00	cum.	32.58	
300 (1)	Aggregate Surface Course	476.00	cum.	1.19	
311 (1)e1a	Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	24,056.00	sqm.	52.11	
311 (1)c	Portland Cement Concrete Pavement, 0.15m. Thick	5,322.00	sqm.	6.20	
404(1)c	Reinforcing Steel Bar, Grade 40	24,514.00	kg.	17.02	
405 (1) c3	Structural Concrete, Class A	606.00	cum.	54.11	
500(1)b3	Pipe Culvert & Storm Drain	139.00	lm	17.38	
505(5)	Crouled Riprap, Class A	44.00	cum.	4.40	
506(1)	Stone Masonry	166.00	cum.	13.28	
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	660.00	sqm.	3.30	
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	93.00	sqm.	0.47	
622(1)b	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)	27,034.00	sqm.	67.69	
622(1)a	Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)	2,990.00	sqm.	7.48	
622(2)b	Bio-Engineered Erosion Coco Logy/Fascine Control System	3,055.00	lm	25.46	
622(3)c	Bio-Engineered Erosion Control System Vegetation	30,024.00	sqm.	60.05	
A.1.1(3)	Const. of Field Office for the Engineer	1.00	LS	10.00	
A.1.1(11)	Prov. Of Furniture, Equipment and Appliances for Field Engineer	1.00	LS		
A.1.2(5)	Operation & Maintenance of Govt. Service Vehicle	1.00	LS	225.00	
B.5	Project Billboard	2.00	Unit	0.25	
B.7	Occupational Safety & Health Program	1.00	LS	150.00	
B.9	Mobilization and Demobilization	1.00	LS	4.00	
B.4(1)	Construction Survey and Staking	3.35	Km.	44.67	

Prepared by:

~~JERALD R. BARRERA~~
~~Engineer II~~

Submitted by:

LEONCIO B. SOLAMILLO

APPROVED:

~~JORGE U. SERRANO, JR., CEO III~~
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME

: Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road -
(S01061MN) Zamboanga del Norte 1st DEO

Item No./Description

: 101(4c) Removal of Existing RCPC

Unit of Measurement

: In.m

Output per hour

: 6.00

Quantity

: 38.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.79	611.92	484.44
b. Laborers	3	0.79	342.24	812.82
Sub-total for A				P 1,297.26
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	0.79	12,296.00	9,734.33
b. Boom Truck	1	0.40	8,137.52	3,221.10
Minor Tools (10% of Labor)				129.73
Sub-total for B				P 13,085.16
Total (A+B)				P 14,382.42
D. Output/day	48.00	In.m /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				14,382.42
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			1,438.24
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			1,150.59
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			848.56
J. Total Unit Cost				468.94

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 102(2) Surplus Common Excavation

Unit of Measurement : cu.m.

Output per hour : 60.00

Quantity : 174,987.0

Note: Use Four (4) gangs

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	91.14	611.92	55,769.82
b. Laborer	12	91.14	342.24	374,297.19
Sub-total for A				P 430,067.01
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bulldozer	4	91.14	27,032.00	9,854,684.55
b. Payloader	4	91.14	13,864.00	5,054,207.85
c. Payloader	4	68.35	13,864.00	3,790,655.89
d. Dumptruck	12	91.14	11,360.00	12,424,077.00
Sub-total for B				P 31,123,625.29
Total (A+B)				P 31,553,692.30
C. Output/day 1,920.00 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				31,553,692.30
Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		3,155,369.23
Contractor's Profit (CP)		8% per D.O 197 s 2016		2,524,295.38
Value Added Tax (VAT)		5% per D.O 197 s 2016		1,861,667.85
Total Unit Cost				223.42

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 103(3) Foundation Fill

Unit of Measurement : cu.m.

Output per hour : 1.25

Quantity : 21.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	2.10	611.92	1,285.03
b. Laborer	4	2.10	342.24	2,874.82
Sub-total for A				P 4,159.85
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Plate Compactor	1	2.10	984.00	2,066.40
b. Water Truck	1	0.02	19,600.00	411.60
c. Minor Tools (10% of Labor)				
Sub-total for B				P 2,478.00
Total (A+B)				P 6,637.85
D. Output/day 10.00 cu.m. /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Filling Materials	24.15	cu.m.	601.40	14,523.81
Sub-total for E				P 14,523.81
Direct Cost (C+E)				21,161.66
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 2,116.17
Contractor's Profit (CP)				8% per D.O 197 s 2016 1,692.93
Value Added Tax (VAT)				5% per D.O 197 s 2016 1,248.54
Total Unit Cost				1,248.54

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 103(6)a Pipe Culvert and Drain Excavation

Unit of Measurement : cu.m.

Output per hour : 20.00

Quantity : 136.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.85	611.92	520.13
b. Laborer	3	0.85	342.24	872.71
Sub-total for A				P 1,392.84
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Dumptruck	2	0.85	11,360.00	19,312.00
b. Backhoe	1	0.85	12,296.00	10,451.60
Minor Tools (10% of Labor)				139.28
Sub-total for B				P 29,902.88
Total (A+B)				P 31,295.73
D. Output/day 160.00 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				
Sub-total for E				P 0.00
F. Direct Cost (C+E)				31,295.73
G. Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 3,129.57
H. Contractor's Profit (CP)				8% per D.O 197 s 2016 2,503.66
I. Value Added Tax (VAT)				5% per D.O 197 s 2016 1,846.45
J. Total Unit Cost				285.11

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 104(1)a1 Embankment from Roadway Excavation

Unit of Measurement : cu.m.

Output per hour : 50.00

Quantity : 36,493.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
For Excavation Work				
a. Construction Foreman	1	76.14	611.92	46,590.35
b. Laborer	2	76.14	342.24	52,114.92
Spreading & Compaction				
a. Construction Foreman	1	91.73	611.92	56,132.95
b. Laborer	2	91.73	342.24	62,789.06
Sub-total for A				P 217,627.28
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
For Excavation Work				
a. Bulldozer	1	76.14	27,032.00	2,058,161.74
b. Payloader	1	76.14	13,864.00	1,055,576.89
c. Dumptruck	2	76.14	11,360.00	1,729,854.79
Spreading and Compaction				
a. Road Grader	1	91.73	17,384.00	1,594,677.78
b. Road Roller	1	91.73	13,216.00	1,212,336.72
c. Water Truck	1	32.11	19,600.00	629,284.95
Sub-total for B				P 8,279,892.87
Total (A+B)				P 8,497,520.15
D. Output/day	400.00	cu.m.	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				8,497,520.15
Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		849,752.02
Contractor's Profit (CP)		8% per D.O 197 s 2016		679,801.61
Value Added Tax (VAT)		5% per D.O 197 s 2016		501,353.69
Total Unit Cost				286.93

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 105 (1)a Subgrade Preparation

Unit of Measurement : sq.m.

Output per hour : 300.00

Quantity : 21,717.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	9.05	611.92	5,537.11
b. Laborer	2	9.05	342.24	6,193.69
Sub-total for A				P 11,730.80
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	9.05	17,384.00	157,303.47
b. Road Roller	1	9.05	13,216.00	119,588.28
c. Water Truck	1	2.26	19,600.00	44,338.88
Sub-total for B				P 321,230.63
Total (A+B)				P 332,961.42
D. Output/day 2,400.00 sq.m./day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				
Sub-total for E				P 0.00
Sub-total for C+E				332,961.42
F. Direct Cost (C+E)				
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			33,296.14
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			26,636.91
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			19,644.72
J. Total Unit Cost				19.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 200 (1) Aggregate Subbase Course

Unit of Measurement : cu.m.

Output per hour : 50.00

Quantity : 13,032.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	32.58	611.92	19,936.35
b. Laborer	2	32.58	342.24	22,300.36
Sub-total for A				P 42,236.71
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	32.58	17,384.00	566,370.72
b. Road Roller	1	32.58	13,216.00	430,577.28
c. Water Truck	1	32.58	19,600.00	638,568.00
Sub-total for B				P 1,635,516.00
Total (A+B)				P 1,677,752.71
D. Output/day	400.00	cu.m.	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Aggregate Subbase Course (w/ Shrinkage of 15%)	16,290.00	cu.m.	1,359.80	22,151,142.00
Sub-total for E				P 22,151,142.00
Direct Cost (C+E)				23,828,894.71
Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		2,382,889.47
Contractor's Profit (CP)		8% per D.O 197 s 2016		1,906,311.58
Value Added Tax (VAT)		5% per D.O 197 s 2016		1,405,904.79
Total Unit Cost				2,265.50

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 300 (1) Aggregate Surface Course

Unit of Measurement : cu.m.

Output per hour : 50.00

Quantity : 476.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	1.19	611.92	728.18
b. Laborer	2	1.19	342.24	814.53
Sub-total for A				P 1,542.72
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Road Grader	1	1.19	17,384.00	20,686.96
b. Road Roller	1	1.19	13,216.00	15,727.04
c. Water Truck	1	0.30	19,600.00	5,831.00
Sub-total for B				P 42,245.00
Total (A+B)				P 43,787.72
C. Output/day	400.00	cu.m. /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Aggregate Surface Course (w/ shrinkage of 15%)	547.40	cu.m.	1,409.80	771,724.52
Sub-total for E				P 771,724.52
Direct Cost (C+E)				815,512.24
G. Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 81,551.22
H. Contractor's Profit (CP)				8% per D.O 197 s 2016 65,240.98
I. Value Added Tax (VAT)				5% per D.O 197 s 2016 48,115.22
J. Total Unit Cost				2,122.73

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 311(1)1e1a Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick

Unit of Measurement : sq.m.

Output per hour : 57.70

Quantity : 24,056.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	52.11	611.92	31,889.83
b. Skilled	4	52.11	443.20	92,388.38
c. Laborer	12	52.11	342.24	214,027.52
Sub-total for A				338,305.74
			P	
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Transit Mixer	4	52.11	10,544.00	2,197,976.29
b. Concrete Vibrator	2	52.11	730.00	76,087.00
c. Batching Plant	1	52.11	14,076.00	733,562.08
d. Pay Loader	1	52.11	13,864.00	722,513.83
e. Concrete Screeder	1	52.11	4,360.00	227,218.72
f. Water Truck	1	52.11	19,600.00	1,021,441.94
g. Concrete Saw	1	52.11	261.04	13,603.94
h. Bar Cutter	1	5.21	1,758.00	9,161.71
Minor Tools (5% of labor)				16,915.29
Sub-total for B				5,018,480.80
			P	
Total (A+B)				5,356,786.54
			P	
D. Output/day	461.60	sq.m.	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Reinforcing Steel Bar	12,028.00	kg	41.00	493,148.00
b. Curing Compound	6,976.24	lit	40.00	279,049.60
c. Asphalt Sealant	4,089.52	lit	75.00	306,714.00
d. Sand	3,704.62	cu.m	1,219.80	4,518,900.36
e. Gravel	6,735.68	cu.m	1,389.80	9,361,248.06
f. Cement	63,988.96	bag	285.18	18,248,299.83
g. Concrete Saw	3.61	pc	8,000.00	28,867.20
h. Pipe Sleeve, 2" dia.	187.64	l.m	133.00	24,955.69
i. Grease/Tar	187.64	lit	21.00	3,940.37
j. Steel Forms	11,065.76	lit	60.00	663,945.60
Sub-total for E				33,929,068.71
			P	
Direct Cost (C+E)				39,285,855.25
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			3,928,585.52
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			3,142,868.42
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			2,317,865.46
Total Unit Cost				2,023.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 311(1)a Portland Cement Concrete Pavement, 0.15m. Thick

Unit of Measurement : sq.m

Output per hour : 107.33

Quantity : 5,322.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	6.20	611.92	3,792.79
b. Skilled	4	6.20	443.20	10,988.12
c. Laborer	12	6.20	342.24	25,455.16
Sub-total for A				P 40,236.07
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Transit Mixer	4	6.20	10,544.00	261,414.18
b. Concrete Vibrator	2	6.20	730.00	9,049.33
c. Batching Plant	1	6.20	14,076.00	87,245.50
d. Pay Loader	1	6.20	13,864.00	85,931.48
e. Concrete Screeder	1	6.20	4,360.00	27,024.04
f. Water Truck	1	6.20	19,600.00	121,484.21
g. Concrete Saw	1	6.20	261.04	1,617.97
h. Bar Cutter	1	0.62	1,758.00	1,089.64
Minor Tools (5% of Labor)				29,742.82
Sub-total for B				P 624,599.17
Total (A+B)				P 664,835.23
C. Output/day	858.64 sq.m /day			
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Reinforcing Steel Bar	1,756.26	kg	41.00	72,006.66
b. Curing Compound	1,543.38	lit	40.00	61,735.20
c. Asphalt Sealant	638.64	lit	75.00	47,898.00
d. Steel Form	2,448.12	l.m	40.00	97,924.80
e. Sand	439.07	cu.m	1,219.80	535,571.49
f. Gravel	798.30	cu.m	1,389.80	1,109,477.34
g. Cement	7,610.46	bag	285.18	2,170,342.44
h. Concrete Saw	0.80	pc	8,000.00	6,386.40
i. Pipe Sleeve, 1" dia.	41.51	l.m	133.00	5,521.04
j. Grease/Tar	7.98	lit	21.00	167.64
Sub-total for E				P 4,107,031.02
Direct Cost (C+E)				4,771,866.25
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 477,186.62
Contractor's Profit (CP)				8% per D.O 197 s 2016 381,749.30
Value Added Tax (VAT)				5% per D.O 197 s 2016 281,540.11
Total Unit Cost				1,110.92

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 404(1)a Reinforcing Steel Bar, Grade 40

Unit of Measurement : kg.

Output per hour : 180.00

Quantity : 24,514.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	17.02	611.92	10,417.09
b. Skilled	2	17.02	443.20	15,089.73
c. Laborer	8	17.02	342.24	46,609.29
Sub-total for A				P 72,116.10
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bar Cutter	1	8.51	1,758.00	14,963.75
b. Bar Bender	1	8.51	2,812.00	23,935.20
c. Cargo Truck	1	2.55	6,264.00	15,995.39
Sub-total for B				P 54,894.34
Total (A+B)				P 127,010.44
D. Output/day	1,440.00 kg. /day			
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Tie Wire	514.79	kgs	81.00	41,698.31
b. Reinforcing Steel Bar, Grade 60	25,739.70	kgs	41.00	1,055,327.70
Sub-total for E				P 1,097,026.01
Direct Cost (C+E)				1,224,036.45
Overhead, Contingencies and Miscellaneous			10% per D.O 197 s 2016	122,403.65
Contractor's Profit (CP)			8% per D.O 197 s 2016	97,922.92
Value Added Tax (VAT)			5% per D.O 197 s 2016	72,218.15
Total Unit Cost				61.87

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 405 (1) a3 Structural Concrete, Class A

Unit of Measurement : cu.m

Output per hour : 1.40

Quantity : 606.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	54.11	611.92	33,109.24
b. Skilled Laborer	4	54.11	443.20	95,921.14
c. Laborer	8	54.11	342.24	148,141.03
<i>Installation/Removal of Form Works</i>				
a. Skilled Laborer	4	54.11	443.20	95,921.14
b. Laborer	8	54.11	342.24	148,141.03
Sub-total for A				P 521,233.59
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	54.11	1,376.00	74,451.43
b. Concrete Vibrator	1	54.11	972.00	52,592.14
c. Water Truck	1	5.41	19,600.00	106,050.00
Minor Tools (5% of Labor)				26,061.68
Sub-total for B				P 259,155.25
Total (A+B)				P 780,388.84
C. Output/day	11.20	cu.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Form Lumber	10,605.00	bd.ft	42.00	445,410.00
b. Plywood	242.40	pc	1,173.00	284,335.20
c. Assorted CW Nails	424.20	kg.	55.00	23,331.00
d. Portland Cement	5,757.00	bag	285.18	1,641,774.80
e. Sand	303.00	cu.m	1,219.80	369,599.40
f. Gravel	606.00	cu.m	1,389.80	842,218.80
Sub-total for E				P 3,606,669.20
Direct Cost (C+E)				4,387,058.04
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 438,705.80
Contractor's Profit (CP)				8% per D.O 197 s 2016 350,964.64
Value Added Tax (VAT)				5% per D.O 197 s 2016 258,836.42
Total Unit Cost				8,969.58

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 500(1)b3 Pipe Culvert & Storm Drain

Unit of Measurement : In.m

Output per hour : 1.00

Quantity : 139.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	17.38	611.92	10,632.11
b. Skilled Laborer	2	17.38	443.20	15,401.20
c. Laborer	4	17.38	342.24	23,785.68
Sub-total for A				P 49,818.99
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Backhoe	1	8.69	12,296.00	106,821.50
b. Plate Compactor	1	8.69	984.00	8,548.50
Minor Tools (10% of Labor)				4,981.90
Sub-total for B				P 120,351.90
Total (A+B)				P 170,170.89
D. Output/day	8.00	In.m /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	150.12	bag	285.18	42,811.05
b. Sand	8.48	cu.m	1,219.80	10,342.68
c. RC Pipes (910 mm dia.)	139.00	pc	2,000.00	278,000.00
d. Sand Bedding	17.79	cu.m	1,219.80	21,702.68
Sub-total for E				P 352,856.42
Direct Cost (C+E)				523,027.31
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				4,662.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Teritary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 505(5) Grouted Riprap, Class A

Unit of Measurement : cu.m

Output per hour : 1.25

Quantity : 44.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	4.40	611.92	2,692.45
b. Skilled Laborer	2	4.40	443.20	3,900.16
c. Laborer	8	4.40	342.24	12,046.85
Sub-total for A				P 18,639.46
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	4.40	1,376.00	6,054.40
b. Water Truck	1	1.76	19,600.00	34,496.00
Minor Tools (5% of Labor)				931.97
Sub-total for B				P 41,482.37
Total (A+B)				P 60,121.83
C. Output/day 10.00 cu.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Cement	132.00	bag	285.18	37,643.61
b. Sand	11.00	cu.m	1,219.80	13,417.80
c. Gravel Fill	0.66	cu.m	1,389.80	917.27
d. Weep Holes (PVC), 2" dia.	13.20	ln.m	133.00	1,755.60
e. Filter Cloth	0.66	sq.m	160.00	105.60
f. Boulders	46.20	cu.m	1,937.80	89,526.36
Miscellaneous (1% of Materials)				1,433.66
Sub-total for E				P 144,799.90
F. Direct Cost (C+E)				204,921.73
G. Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 20,492.17
H. Contractor's Profit (CP)				8% per D.O 197 s 2016 16,393.74
I. Value Added Tax (VAT)				5% per D.O 197 s 2016 12,090.38
J. Total Unit Cost				5,770.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 506(1) Stone Masonry

Unit of Measurement : cu.m

Output per hour : 1.56

Quantity : 166.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	13.28	611.92	8,126.30
b. Skilled Laborer	2	13.28	443.20	11,771.39
c. Laborer	8	13.28	342.24	36,359.58
Sub-total for A				P 56,257.27
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. One Bagger Mixer	1	13.28	1,376.00	18,273.28
b. Water Truck	1	0.66	19,600.00	13,014.40
c. Backhoe	1	1.33	12,296.00	16,329.09
Minor Tools (10% of Labor)				5,625.73
Sub-total for B				P 53,242.49
Total (A+B)				P 109,499.76
D. Output/day	12.50	cu.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Cement	913.00	bag	285.18	260,368.32
b. Sand	49.80	cu.m	1,219.80	60,746.04
c. Gravel Fill	3.32	cu.m	1,389.80	4,614.14
d. Weep Holes (PVC)	49.80	ln.m	133.00	6,623.40
e. Filter Cloth	2.49	sq.m	160.00	398.40
f. Boulders	174.30	cu.m	1,937.80	337,758.54
Miscellaneous (1% of Materials)				6,705.09
Sub-total for E				P 677,213.92
Direct Cost (C+E)				786,713.68
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 78,671.37
Contractor's Profit (CP)				8% per D.O 197 s 2016 62,937.09
Value Added Tax (VAT)				5% per D.O 197 s 2016 46,416.11
Total Unit Cost				5,871.92

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 612(1) ReflectORIZED Thermoplastic Pavement Markings (White)

Unit of Measurement : sq.m

Output per hour : 25.00

Quantity : 660.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	3.30	611.92	2,019.34
b. Skilled Laborer	2	3.30	443.20	2,925.12
c. Laborer	6	3.30	342.24	6,776.35
Sub-total for A				11,720.81
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Cargo Truck/Delivery Truck	1	3.30	9,696.00	31,996.80
b. Applicator Machine	1	3.30	750.00	2,475.00
c. Kneading Machine	1	3.30	1,500.00	4,950.00
Minor Tools (10% of labor)				
Sub-total for B				39,421.80
Total (A+B)				51,142.61
C. Output/day	200.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint (white)	214.50	bag	1,585.00	339,982.50
b. Glass Beads	21.78	bag	2,500.00	54,450.00
c. Primer	79.20	liter	180.00	14,256.00
d. LPG (50 kg.)	2.64	cyl	90.00	237.60
e. LPG (12 kg.)	1.32	cyl	50.00	66.00
f. Calsumine	82.50	kg	5.00	412.50
Miscellaneous (5% of Materials)				20,470.23
Sub-total for E				429,874.83
Direct Cost (C+E)				481,017.44
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (CP)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				903.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 612(2) ReflectORIZED Thermoplastic Pavement Markings (Yellow)

Unit of Measurement : sq.m

Output per hour : 25.00

Quantity : 93.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.47	611.92	284.54
b. Skilled Laborer	2	0.47	443.20	412.18
c. Laborer	6	0.47	342.24	954.85
Sub-total for A				P 1,651.57
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Cargo Truck/Delivery Truck	1	0.47	9,696.00	4,508.64
b. Applicator Machine	1	0.47	750.00	348.75
c. Kneading Machine	1	0.47	1,500.00	697.50
Minor Tools (10% of labor)				
Sub-total for B				P 5,554.89
Total (A+B)				P 7,206.46
D. Output/day 200.00 sq.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Thermoplastic Paint (yellow)	30.23	bag	1,800.00	54,405.00
b. Glass Beads	3.07	bag	2,500.00	7,672.50
c. Primer	11.16	liter	233.00	2,600.28
d. LPG (50 kg.)	0.37	cyl	90.00	33.48
e. LPG (12 kg.)	0.19	cyl	50.00	9.30
f. Calsumine	11.63	kg	5.00	58.13
Miscellaneous (5% of Materials)				3,238.93
Sub-total for E				P 68,017.62
Direct Cost (C+E)				75,224.08
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016 7,522.41
Contractor's Profit (CP)				8% per D.O 197 s 2016 6,017.93
Value Added Tax (VAT)				5% per D.O 197 s 2016 4,438.22
Total Unit Cost				1,002.18

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(1)b Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 700)

Unit of Measurement : sq.m

Output per hour : 50.00

Quantity : 27,034.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	67.59	611.92	41,356.61
b. Laborer	8	67.59	342.24	185,042.32
Sub-total for A				P 226,398.94
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Water Truck	1	16.90	19,600.00	331,166.50
Minor Tools (10% of Labor)				22,639.89
Sub-total for B				P 353,806.39
Total (A+B)				P 580,205.33
D. Output/day 400.00 sq.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Erosion Control Net CGN 700 w/ 5% wastage (Price includes bamboo pegs)	28,385.70	sq.m	119.00	3,377,898.30
Sub-total for E				P 3,377,898.30
Direct Cost (C+E)				3,958,103.63
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		395,810.36
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		316,648.29
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		233,528.11
J. Total Unit Cost				181.40

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(1)a Bio-Engineered Erosion Coco Fiber Erosion Control Net (CGN 400)

Unit of Measurement : sq.m

Output per hour : 50.00

Quantity : 2,990.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	7.48	611.92	4,574.10
b. Laborer	8	7.48	342.24	20,465.95
Sub-total for A				P 25,040.05
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Water Truck	1	1.87	19,600.00	36,627.50
Minor Tools (10% of Labor)				2,504.01
Sub-total for B				P 39,131.51
Total (A+B)				P 64,171.56
C. Output/day	400.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Erosion Control Net CGN 400 w/ 5% wastage (Price includes bamboo pegs)	3,139.50	sq.m	100.00	313,950.00
Sub-total for E				P 313,950.00
Direct Cost (C+E)				378,121.56
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			37,812.16
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			30,249.72
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			22,309.17
J. Total Unit Cost				156.69

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(2)b Bio-Engineered Erosion Coco Logs/Fascine Control System

Unit of Measurement : ln.m

Output per hour : 15.00

Quantity : 3,055.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	25.46	611.92	15,578.46
b. Laborer	8	25.46	342.24	69,702.88
Sub-total for A				P 85,281.34
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates) Minor Tools (10% of Labor)				8,528.13
Sub-total for B				P 8,528.13
Total (A+B)				P 93,809.48
D. Output/day 120.00 ln.m /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Coco Fiber Roll (CGR 200) (Price includes nylon ropes and live stakes)	3,207.75	ln.m	472.00	1,514,058.00
Sub-total for E				P 1,514,058.00
Direct Cost (C+E)				1,607,867.48
G. Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		160,786.75
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		128,629.40
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		94,864.18
J. Total Unit Cost				652.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : 622(3)a Bio-Engineered Erosion Control System Vegetation

Unit of Measurement : sq.m

Output per hour : 62.50

Quantity : 30.024.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	60.05	611.92	36,744.57
b. Laborer	2	60.05	342.24	41,101.66
Sub-total for A				P 77,846.23
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Hydroseeding Machine	1	60.05	7,616.00	457,325.57
b. Water Truck	1	60.05	8,520.00	511,608.96
Sub-total for B				P 968,934.53
Total (A+B)				P 1,046,780.76
C. Output/day	500.00	sq.m	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Grass Cover (Price includes grass seeds, mulch, cocopeat & binding agent for hydroseeding)	31,525.20	sq.m	306.00	9,646,711.20
Sub-total for E				P 9,646,711.20
Direct Cost (C+E)				10,693,491.96
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			1,069,349.20
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			855,479.36
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			630,916.03
J. Total Unit Cost				441.29

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour : :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	10.00	611.92	6,119.20
b. Masons	3	10.00	443.20	13,296.00
c. Carpenters	3	10.00	443.20	13,296.00
d. Laborers	6	10.00	342.24	20,534.40
Sub-total for A			P	53,245.60
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Bagger Mixer	1	5.00	1,376.00	6,880.00
b. Water Truck	1	1.00	19,600.00	19,600.00
Minor Tools (10% of Labor)				5,324.56
Sub-total for B			P	31,804.56
Total (A+B)			P	85,050.16
D. Output/day 0.00 LS /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
I. Earthworks (Excavation, Embankment, Bedding)				
a. Gravel Bedding	3.50	cu.m	1,389.80	4,864.30
b. Selected Fill	10.00	cu.m	601.40	6,014.00
c. Soil Poisoning	2.50	lit	1,900.00	4,750.00
II. Concrete Works (Footing, Columns, Beams & Slab on Grade)				
a. Portland Cement	90.00	bag	285.18	25,666.10
b. Crushed Gravel	20.00	cu.m	1,389.80	27,796.00
c. Washed Sand	17.00	cu.m	1,219.80	20,736.60
III. Reinforcing Bars(Footing Columns, Beams, & Slabs on Grade)				
a. Deformed Round Bar, Grade 40	500.00	kg	40.00	20,000.00
b. No. 16 GI Tie Wire	20.00	kg	68.00	1,360.00
IV. Formworks (Columns & Beams)				
a. Coco Lumber	400.00	bd.ft	15.00	6,000.00
b. Ordinary Plywood, 1/4"x4'x8'	18.00	pc	520.00	9,360.00
c. CWN, Assorted	5.00	kg	44.00	220.00
V. Masonry Works (masonry walls & plastering)				
a. CHB 6" thk	650.00	pc	18.00	11,700.00
b. Portland Cement	50.00	bag	285.18	14,258.94
c. Washed Sand	10.00	cu.m	1,219.80	12,198.00
d. 10mm dia. X 6m RSB	75.00	kg	43.00	3,225.00
e. No. 16 GI Tie Wire	2.50	kg	81.00	202.50
VI. Doors and Windows				
a. D-1, Hollow Core Flush Type swing door, complete w/ accessories, 0.90mx2.1m	2.00	set	1,765.27	3,530.54
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	177,425.98
Sub-total for E			P	320,952.33
F. Direct Cost (C+E)				406,002.49
G. Overhead, Contingencies and Miscellaneous	10% per D.O 197 s 2016			40,600.25
H. Contractor's Profit (CP)	8% per D.O 197 s 2016			32,480.20
I. Value Added Tax (VAT)	5% per D.O 197 s 2016			23,954.15
J. Total Unit Cost				503,037.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Designation		No. of Person	No. of Days	Daily Rate	Amount
A. Labor	a. Construction Foreman	1	16.00	611.92	
	b. Masons	3	16.00	443.20	
	c. Carpenters	3	16.00	443.20	
	d. Laborers	6	16.00	342.24	
	Sub-total for A				P 0.00
Name and Capacity		No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)	a. Bagger Mixer	1	5.00	1,376.00	
	b. Water Truck	1	1.00	19,600.00	
	Minor Tools (10% of Labor)				
Sub-total for B				P	0.00
Total (A+B)				P	0.00
Output/day 0.00 LS /day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials	VII Steel Works				
	a. 65 x 65 x 6mm. L	300.00	kg	48.00	14,400.00
	b. 50 x 50 x 6mm. L	200.00	kg	48.00	9,600.00
	c. 50 x 50 x 4mm. L	100.00	kg	48.00	4,800.00
	d. Purlins C- 150 x 50 x 3mm.	19.00	kg	45.00	855.00
	e. 16mm dia. Cross bracing	32.00	kg	50.00	1,600.00
	f. 16mm dia. Turn buckle	15.00	pc	123.00	1,845.00
	g. 12mm thk base plate	22.00	kg	45.00	990.00
	h. 10mm thk batten plate	15.00	kg	45.00	675.00
	i. 10mm dia. Sag rod	7.50	kg	50.00	375.00
	j. 20mm dia. X 350 mm anchor bolts	7.00	pc	60.00	420.00
	k. Welding Rod	12.50	kg	125.00	1,562.50
	l. Primer, Zinc Cromate	5.00	gal	531.00	2,655.00
VII Roofing Works					
	a. Pre-painted Gi Roofing Steel 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	189.00	1,890.00
	c. Pre-painted flashing, ga. 24	2.00	ln.m	189.00	378.00
	d. TeckscREW 1 1/2"	500.00	pc	1.25	625.00
	e. Roof Sealant	2.00	lit	242.84	485.68
IX. Carpentry Works					
	a. Rough Lumber, sun dried tanguile	350.00	bd.ft	37.00	12,950.00
	b. Plywood, ordinary 1/4" x 4' x 8'	30.00	pc	350.00	10,500.00
	c. Finishing Nails	5.00	kg	74.00	370.00
	d. Common Wire Nails	10.00	kg	74.00	740.00
	e. Wood Preservative Brown	5.00	lit	900.00	4,500.00
Sub-Total for E					
Sub-total for E				P	95,316.18
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					

PROJECT NAME

: Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

DETAILED UNIT PRICE ANALYSIS

Item No./Description : A.1.1(3) Const. of Field Office for the Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
X. Electrical Works				
a. 2 x 40w Fluorescent lighting fixtures	5.00	set	1,500.00	7,500.00
b. Parcelain Ceiling Outlet w/ female	2.00	pc	50.00	100.00
c. duplex Convenience 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	69.33	1,733.25
g. 15mm dia. PVC pipe	20.00	pc	76.00	1,520.00
h. 15mm dia. PVC Coupling	25.00	pc	27.00	675.00
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	36.00	108.00
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	101.49	202.98
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	28.00	196.00
t. panel board (side main w/ braches)	2.00	set	3,000.00	6,000.00
XI. Plumbing Works				
a. Water Closet (include, Fitting & Accessories)	1.00	set	7,631.94	7,631.94
b. Lavatory (include fitting & Accessories)	1.00	set	5,000.00	5,000.00
c. 1/2" GI Pipe S-40	2.00	pc	292.00	584.00
d. 1/2" Water Faucet	2.00	pc	165.00	330.00
e. 1/2" Assorted Connector	8.00	pc	19.00	152.00
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				48,210.17
Sub-total for E		P		48,210.17
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 : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MIN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.1(11) Prov. Of Furniture, Equipment and Appliances for Field Engineer

Unit of Measurement : LS

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
Sub-total for A				
A.			P	0.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B				
Sub-total for B				
			P	0.00
Total (A+B)				
			P	0.00
D. Output/day	0.00	LS	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities & Supplies				
a. Office Table, Executive type w/ chair	2.00	unit	7,000.00	14,000.00
b. 1/2" wooden office table	2.00	each	2,830.00	5,660.00
c. Drawing Table	2.00	unit	5,000.00	10,000.00
d. Electric Desk Fan	3.00	unit	1,370.00	4,110.00
e. Folding Beds, Good Quality	3.00	each	2,700.00	8,100.00
f. 6" sleeping beds w/ pillows and blanket	3.00	each	5,000.00	15,000.00
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	dozen	2,000.00	2,000.00
k. 6 seater dining table	1.00	each	2,800.00	2,800.00
l. Monoblock Backrest chair	2.00	dozen	2,500.00	5,000.00
m. Plastic Pail & Basin	2.00	pc	500.00	1,000.00
n. White Board	3.00	Unit	7,000.00	21,000.00
o. Bond Paper (Long)	20.00	ream	300.00	6,000.00
p. Bond Paper (Short)	20.00	ream	270.00	5,400.00
q. Yellow Pad	6.00	pad	35.00	210.00
r. White Board Marker	10.00	pc	75.00	750.00
s. Sign Pen (assorted color)	2.00	dozen	650.00	1,300.00
t. Ballpen (assorted color)	4.00	box	180.00	720.00
u. Mechanical Pencil	6.00	unit	350.00	2,100.00
v. Pencil Lead, No. 5	4.00	box	145.00	580.00
w. Puncher	1.00	Unit	253.32	253.32
x. Staple Pad w/ wire	2.00	Unit	275.00	550.00
y. Cutter Blade	2.00	box	240.00	480.00
z. Scotch Tape	10.00	roll	45.00	450.00
aa Brown Envelop	7.00	dozen	125.00	875.00
bb Folder, Long	7.00	dozen	85.00	595.00
cc Folder, Short	7.00	dozen	70.00	490.00
dd Data File Folder	12.00	pc	85.00	1,020.00
ee Desktop w/ complete accessories	1.00	unit	60,000.00	60,000.00
ff Printer (3in1)	1.00	unit	20,000.00	20,000.00
gg Camera	2.00	unit	15,000.00	30,000.00
Lighting/Water Fixtures				
a. Electric Bill	5.00	mons	1,200.00	6,000.00
b. Water Bill	5.00	mons	1,000.00	5,000.00
c. LPG Gasul (11 kg)	5.00	mons	1,000.00	5,000.00
Sub-Total for E				246,143.32
Sub-total for E				246,143.32
				246,143.32
F. Direct Cost (C+E)				
G. Overhead, Contingencies and Miscellaneous				
H. Contractor's Profit (CP)				
I. Value Added Tax (VAT)				
J. Total Unit Cost				
			per D.O 197 s 2016	12,307.17
			per D.O 197 s 2016	258,450.49
			5% per D.O 197 s 2016	

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : A.1.2(5) Operation & Maintenance of Gov't. Service Vehicle

Unit of Measurement : L.S

Output per hour :

Quantity : 1.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Service Driver	1	225.00	443.20	99,720.00
Sub-total for A				P 99,720.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				P 0.00
Total (A+B)				P 99,720.00
D. Output/day	0.00	L.S	/day	
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Liters, Diesel Fuel	2,250.00	liters	35.00	78,750.00
b. Engine Oil & Lubricants	1.00	ls	24,930.00	24,930.00
c. Tires	4.00	pcs	9,500.00	38,000.00
d. Spare parts etc.	1.00	ls	100,000.00	100,000.00
Sub-total for E				P 241,680.00
Direct Cost (C+E)				341,400.00
G. Overhead, Contingencies and Miscellaneous		0% per D.O 197 s 2016		0.00
H. Contractor's Profit (CP)		0% per D.O 197 s 2016		0.00
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		17,070.00
J. Total Unit Cost				358,470.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : B.5 Project Billboard

Unit of Measurement : Unit

Output per hour :

Quantity : 2.00

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor				
a. Construction Foreman	1	0.25	611.92	152.98
b. Carpenters	1	0.25	443.20	110.80
c. Laborer	2	0.25	342.24	171.12
Sub-total for A				P 434.90
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				P 0.00
Total (A+B)				P 434.90
D. Output/day	0.00	Unit /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Marine Plywood 3/16" thk. X 4' x 8'	2.00	pc	388.00	776.00
b. Tarpaulin (4' x 8')	2.00	pc	800.00	1,600.00
c. Assorted Sizes Lumber	100.00	bd. Ft	15.00	1,500.00
d. Assorted Sizes CW Nails	2.00	kg	55.00	110.00
Sub-total for E				P 3,986.00
Direct Cost (C+E)				4,420.90
Overhead, Contingencies and Miscellaneous				10% per D.O 197 s 2016
Contractor's Profit (C.P)				8% per D.O 197 s 2016
Value Added Tax (VAT)				5% per D.O 197 s 2016
Total Unit Cost				2,738.75

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (\$01061MN) Zamboanga del Norte 1st DEO

Item No./Description : B.7 Occupational Safety & 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	112.50	611.92	68,841.00
b. First Aider	1	225.00	443.20	99,720.00
Sub-total for A				
			P	168,561.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
Sub-total for B				
			P	0.00
Total (A+B)				
			P	168,561.00
D. Output/day	0.00	L.S /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Pairs, Rubber Boots Men, Long with Steel Toe, Black	24.00	pair	400.00	9,600.00
b. Pairs, Working Gloves (Maong Materials)	24.00	pair	15.00	360.00
c. Pcs. Rain Coats (Rain Forced, Hip Length Small, Medium & Large)	24.00	pcs	100.00	2,400.00
Sub-total for E				
			P	12,360.00
Direct Cost (C+E)				
				180,921.00
G. Overhead, Contingencies and Miscellaneous		per D.O 197 s 2016		0.00
H. Contractor's Profit (CP)		8% per D.O 197 s 2016		14,473.68
I. Value Added Tax (VAT)		5% per D.O 197 s 2016		9,769.73
J. Total Unit Cost				205,164.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

Item No./Description : B.9 Mobilization and 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				P 0.00
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Low Bed Trailer	2	4.00	34,043.00	272,344.00
b. Water Truck	2	4.00	19,600.00	156,800.00
c. Backhoe	2	4.00	12,296.00	98,368.00
d. Payloader	2	4.00	13,864.00	110,912.00
e. Dumptruck	2	4.00	11,360.00	90,880.00
f. Bullduzer	2	4.00	27,032.00	216,256.00
g. Road Roller	2	4.00	13,216.00	105,728.00
h. Road Grader	2	4.00	17,384.00	139,072.00
Sub-total for B				P 1,190,360.00
Total (A+B)				P 1,190,360.00
D. Output/day	0.00	L.S /day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Sub-total for E				P 0.00
Direct Cost (C+E)				1,190,360.00
G. Overhead, Contingencies and Miscellaneous		per D.O 197 s 2016		0.00
H. Contractor's Profit (CP)		per D.O 197 s 2016		0.00
I. Value Added Tax (VAT)	5%	per D.O 197 s 2016		59,518.00
J. Total Unit Cost				1,249,878.00

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME : Paving of Unpaved Roads - Tertiary Roads Sindangan - Bayog - Lakewood Road - (S01061MN) Zamboanga del Norte 1st DEO

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

Unit of Measurement : Km.

Output per hour : 0.04

Quantity : 2.64

Designation	No. of Person	No. of Days	Daily Rate	Amount
A. Labor (For Field Works)				
a. Geodetic Engineer	1	8.80	833.31	7,333.13
b. Skilled Laborer	3	8.80	443.20	11,700.48
c. Laborer	3	8.80	342.24	9,035.14
(For Office Works)				
a. Geodetic Engineer	1	26.40	833.31	21,999.38
b. Skilled Laborer	2	26.40	443.20	23,400.96
Sub-total for A			P	73,469.09
Name and Capacity	No. of Equip.	No. of Days	Daily Rate	Amount
B Equipment, (2014 ACEL Rates)				
a. Total Station w/ complete accessories Minor Tools (10% of labor)	1	8.80	800.00	7,040.00
Sub-total for B			P	14,386.91
Total (A+B)			P	87,856.00
D. Output/day 0.30 Km. /day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (600 mm x 910 mm)	35.00	pcs	200.00	7,000.00
b. Blue Printing	175.00	pcs	40.00	7,000.00
Miscellaneous (5% of Materials)				700.00
Sub-total for E			P	14,700.00
Direct Cost (C+E)				102,556.00
Overhead, Contingencies and Miscellaneous		10% per D.O 197 s 2016		10,255.60
Contractor's Profit (CP)		8% per D.O 197 s 2016		8,204.48
Value Added Tax (VAT)		5% per D.O 197 s 2016		6,050.80
Total Unit Cost				48,131.39

UNIT COST ANALYSIS FOR HAULING COST FOR ALL AGGREGATES

Hauling Cost from the District Office to Site

Item No	: ALL AGGREGATES	Terrain	: Flat to Rolling
Quantity	: 1,000.00	Unit	: cu.m.
		Hauling Distance	: 5.00 km.
		Effective Working Hours	: 8.00 hrs.

Hauling	: Using 10.00 cu.m. capacity Dumptruck		
	Weight of Dumptruck (cap. 10.00 cu.m.)	: 16,000.00	kgs
	Unit Weight of Fine Aggregates	: 1,640.00	kg/cu.m.
	Unit Weight of Course Aggregates	: 1,534.00	kg/cu.m.

Maximum Volume to be Carried per DT : 11.57 cu.m.

* Dumptruck (10 Wheeler) days computation : **TIME-MOTION ANALYSIS**

Speed when loaded	: 30.00	kph
Speed when unloaded	: 40.00	kph

$$\text{Loaded Running} = \frac{5.00 \times 60.00}{30.00} = 10 \text{ mins.}$$

$$\text{Unloaded Running} = \frac{5.00 \times 60.00}{40.00} = 7.5 \text{ mins.}$$

Loading & Unloading	= 5.00	mins.
Capacity of Dumptruck	= 10.00	cu.m.
Total Cycle Time	= 22.50	mins.

$$\text{No. of trips for Dumptruck per day} = \frac{8.00 \times 60.00}{22.50} = 21.33 \text{ trips}$$

$$\begin{aligned} \text{Dumptruck Daily Outpout} &= 10.00 \times 21.33 = 213.33 \text{ cu.m.} \\ \text{Using 4 Dumptruck} &= 213.33 \times 4.00 = 853.33 \text{ cu.m.} \end{aligned}$$

$$\text{No. of Days for Dumptruck} = \frac{1,000.00}{853.33} = 1.17 \text{ days}$$

EQUIPMENT USED: (2009 ACEL RATES)

$$4.00 - \text{Unit Dumptruck} @ \text{P } 10,816.00 / \text{day} \times 1.17 \text{ days} = \text{P } 50,700.00$$

Estimated Quantity	= 1,000.00	cu.m.
Unit Cost	P 10.14	/cu.m/km. (unit cost hauling per cu.m. per km.)
Grand Total	P 50,700.00	
Equipment	P 50,700.00	
Labor	P	
Equipment	P	

ZAMBOANGA DEL NORTE 1ST DEO (using 2nd Quarter 2017)

	Hauling Distance	Unit Cost per cu.m/km	Hauling Cost per km.	Unit Price	Unit cost per cu.m.
Cost of Fine Aggregates	70.00	X 10.14	= 709.80	+ 510.00	= 1,219.80
Cost of Coarse Aggregates	70.00	X 10.14	= 709.80	+ 680.00	= 1,389.80
Cost of Item 200 Materials	70.00	X 10.14	= 709.80	+ 650.00	= 1,359.80
Cost of Item 201 Materials	70.00	X 10.14	= 709.80	+ 625.00	= 1,334.80
Cost of Item 300 Materials	70.00	X 10.14	= 709.80	+ 700.00	= 1,409.80
Cost of Boulders	70.00	X 10.14	= 709.80	+ 1,228.00	= 1,937.80
Cost of Embankment, Common Borrow	10.00	X 10.14	= 101.40	+ 340.00	= 441.40
Cost of Embankment, Selected Borrow	10.00	X 10.14	= 101.40	+ 500.00	= 601.40

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

Description	Quantity (Bags)
Portland Cement Concrete Pavement-using Conventional Method, 0.28m thick	63,988.96
Portland Cement Concrete Pavement, 0.15m. Thick	7,610.46
Structural Concrete, Class A	5,757.00
Grouted Riprap, Class A	132.00
Stone Masonry	913.00
Const. of Field Office for the Engineer	90.00
	50.00
Concrete Structure (Lean Concrete)	-
TOTAL	78,541.42

Quantity = 78,541.42 Bags

Delivery Charge = P 0.12 /bag/km

SITE	HAULING DISTANCE
Zamboanga del Norte 1st DEO	
PROJECT SITE	75.00

* Average Hauling Distance from source to assumed stockpiling area:
say 75.00 km.

Delivery Charge = P 0.12 X 75.00
Delivery Charge = P 9.00 /bag

* Delivery Truck : 78,541.42 bags (hauling works)
20,000.00 kgs., (capacity per haul)
500.00 bags, (capacity per haul)

* Capacity of Laborers unloading bags of Cement from Delivery Truck:
Assume 10 laborers can unload 500.00 bags of Cement

*Dumptruck (10 Wheeler) days computation : **TIME - MOTION ANALYSIS**

Speed when loaded : 30.00 kph
Speed when unloaded : 40.00 kph

Loaded Running = $\frac{75.00 \times 60.00}{30.00}$ = 150 mins.

Unloading Running = $\frac{75.00 \times 60.00}{40.00}$ = 112.5 mins.

Loading & Unloading = 45.00 mins.

Capacity of Dumptruck = 8.00 cu.m.

500.00 bags

Total Cycle Time = 307.50 mins.

$$\text{No. of trips for Dumptruck per day} = \frac{8.00}{307.50} \times \frac{60.00}{1.56} = \text{trips}$$

$$\begin{aligned} \text{Dumptruck Daily Outpout} &= 500.00 \times 1.56 = 780.49 \text{ cu.m.} \\ \text{Using 4 Dumptruck} &= 780.49 \times 4.00 = 3,121.95 \text{ cu.m.} \end{aligned}$$

$$\text{No. of Days for Dumptruck} = \frac{78,541.42}{3,121.95} = 25.16 \text{ days}$$

$$\text{No. of Days for Labor for unloading} = \text{complimentary to D.Truck days} = 25.16 \text{ days}$$

DELIVERY COST:

$$78,541.42 \text{ Bags, Portland Cement} @ \text{ P } 9.00 \text{ /bag} = \text{P } 706,872.78$$

Sub-total

LABOR:

$$\begin{aligned} 1 \text{ Foreman} @ \text{ P } 558.00 \text{ /day} & \times 25.16 \text{ days} = \text{P } 14,038.05 \\ 10 \text{ Laborers} @ \text{ P } 312.24 \text{ /day} & \times 25.16 \text{ days} = 78,552.71 \\ & \text{Sub-total} \quad \underline{\hspace{1cm}} \quad \text{92,590.76} \end{aligned}$$

MATERIALS:

$$78,541.42 \text{ Bags, Portland Cement} @ \text{ P } 275.00 \text{ /bag} = \text{P } 21,598,890.50$$

Sub-total

Estimated Quantity : 78,541.42 Bags

Unit Cost	P	285.18
Grand Total	P	22,398,354.04
Delivery Cost	P	706,872.78
Labor	P	92,590.76
Materials	P	21,598,890.50