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/LOCATION OF PROJECT : PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - (SO1150MN), ZAMBOANGA DEL NORTE	Appropriation	:	P 250,000,000.00
	Source of Funds	:	CY-2018
	Issued Obligated Authority	:	
	Released	:	
PROJECT CATEGORY : NATIONAL ROAD	Cal. Days to Complete	:	440 Calendar Days
	Desirable Starting Date	:	Upon Approval
	Mode of Implementation	:	

PROJECT DESCRIPTION :

Scope of Work : Road Upgrading(Unpaved to Paved)
Road Width : 6.70 mtrs. (PCCP thick .28m)
Roadbed Width : 12.00 mtrs.
Subbase Course : 0.30 m. thick
Surface Course : 0.15 m. thick

NET LENGTH :
Chainage 940.00 - Chainage 1183.00, Chainage 1683.00 - Chainage 2260.00, Chainage 200.00 - Chainage 4000.00

Net Length : **4,620.000** ln.m. (9.24 lane km.)

MINIMUM EQUIPMENT REQUIREMENT : TECH

Description	No.	Description	No.	Description	No.
Dumptruck (10-Wheeler)	12	Water Pump	1	Project Engineer	1
Transit Mixer	4	Concrete Vibrator	2	Materials Engineer	1
Bulldozer	2	Concrete Cutter	2	Geometric Surveyor	1
Backhoe	4	Bar Cutter	1	Foreman	1
Road Grader	2	Bar Bender	1	Materials Lab. Tech.	1
Road Roller	2	Conc. Mixer (1-Bagger)	2	Mason	10
Payloader	4	Plate Compactor	1	Carpenter	6
Water Truck	2	Batching Plant	1	Laborers (Skilled)	10
Water Tank	2	Backhoe with Breaker	4	Laborers (Unskilled)	20

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART A - FACILITIES FOR THE ENGINEER						
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	0.235	L. S.	1.00	463,814.93	463,814.93
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers	0.102	L. S.	1.00	200,598.00	200,598.00
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	0.275	L.S.	1.00	543,174.67	543,174.67
PART B - OTHER GENERAL REQUIREMENTS						
B.5	Project Billboard/Signboard	0.004	units	2.00	7,300.90	3,650.45
B.7	Occupational Safety and Health Program	0.116	L. S.	1.00	229,787.60	229,787.60
B.4 (1)	Construction Survey and Staking	0.063	km.	4.62	124,584.01	26,966.24
B.9	Mobilization & Demobilization	0.295	L. S.	1.00	582,776.00	582,776.00
PART C - EARTHWORK						
101(4)c	Removal of Structures & Obstructions(Removal of Extg. RCCP,910mmdia.)	0.003	ln.m.	10.00	5,560.51	556.05
102(2)	Surplus Common Excavation	28.755	cu.m.	401,627.00	56,787,101.38	141.39
102(3)	Surplus Rock Excavation	0.571	cu.m.	5,787.00	1,127,248.95	194.79
103(1)a	Structure Excavation	0.220	cu.m.	1,885.50	433,883.06	230.12
103(3)	Foundation Fill	0.034	cu. m.	78.00	67,148.00	860.87
103(6)a	Pipe Culvert and Drain Excavation	0.139	cu.m.	1,192.00	274,297.85	230.12
104(1)a1	Embankment from Excavation	14.313	cu.m.	137,042.50	28,266,020.15	206.26
105(1)a	Subgrade Preparation	0.270	sq.m.	33,387.00	533,474.18	15.98
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course, 0.30 m. thick	8.480	cu. m.	18,026.50	16,747,447.72	929.05
PART E - SURFACE COURSES						
300(1)	Gravel Surface Course, 0.15m. Thick	0.701	cu. m.	1,274.50	1,384,866.60	1,086.60
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	25.038	sq. m.	32,862.00	49,447,718.65	1,504.71
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	2.845	sq. m.	6,748.50	5,618,668.15	832.58
PART F - BRIDGE CONSTRUCTION						
404(1)a	Reinforcing Steel, (Grade 40)	0.762	kg.	30,490.00	1,504,482.37	49.34
404(1)b	Reinforcing Steel, (Grade 60)	1.005	kg.	38,574.00	1,984,370.68	51.44
405(1)a3	Structural Concrete, Class"A"	3.711	cu.m.	1,150.50	7,328,407.71	6,369.76
407 (8)	Lean Concrete	0.184	cu.m.	78.00	363,222.69	4,656.70
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
500(1)b3	Reinf. Conc. Culvert Pipe, 910mm dia.	0.825	ln. m.	579.00	1,629,531.42	2,814.39
505(2)a	Grouted Riprap, Class "A"	0.143	cu. m.	90.00	282,121.01	3,134.68
506	Stone Masonry	0.673	cu. m.	344.00	1,328,943.23	3,863.21
508(1)	Handlaid Rock Embankment	0.044	cu. m.	60.00	87,193.17	1,453.22
PART E - MISCELLANEOUS STRUCTURES						
612(1)	Reflectorized Thermoplastic Pavement Marking, White	0.420	sq.m.	1,082.50	830,144.16	766.88
612(2)	Reflectorized Thermoplastic Pavement Marking, Yellow	0.167	sq.m.	390.00	329,964.25	846.06
622(1)a	Coco-net (CGN 400)	4.427	sq.m.	62,309.50	8,743,313.64	140.32
622(1)b	Coco-net (CGN 700)	0.733	sq.m.	9,532.50	1,447,816.54	151.88
622(2)	Coco-logs/Fascine	1.219	ln.m.	5,250.00	2,406,816.73	458.44
622(3)	Vegetation	3.229	sq.m.	71,842.00	6,376,645.27	88.76
	TOTAL	100.000			P **197,488,444.19**	

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NAME OF PROJECT : PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - (SO1150MN), ZAMBOANGA DEL NORTE

Chainage 940.00 - Chainage 1183.00, Chainage 1683.00 - Chainage 2260.00, Chainage 200.00 - Chainage 4000.00

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	36.30	90,744,135.62
A.2. Labor	1.89	4,726,810.55
A.3. Equipment Expenses	40.81	102,017,498.02
SUB-TOTAL (DIRECT COST)	79.00	P 197,488,444.19
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	6.27	15,674,568.63
B.2. Profit (8 % Max. of D.C.)	6.28	15,708,999.48
C. VAT (5 % of D.C. and I.C. Per D.O. # 197 S.2016)	4.58	11,443,600.62
SUBTOTAL (CONTRACT COST)	96.13	P 240,315,612.92
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	8,750,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	0.37	934,387.08
4. Provisonal Sum	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	P 250,000,000.00

Prepared :

JOSEPHINE B. RENGQUIJO
Engineer II

Checked :

JERALD R. BARRERA
Engineer II

Submitted :

LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

Approved:

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

APPROVED BUDGET FOR THE CONTRACT

PAVING OF UNPAVED ROADS - SECONDA ADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - (SO1150MN), ZAMBOANGA DEL NORTE

Project Name and Location

Stations : Chainage 940.00 - Chainage 1183.00, Chainage 1683.00 - Chainage 2260.00, Chainage 200.00 - Chainage 4000.00

Length : 4,620.00

Contract Duration : **440 Calendar Days**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	MARK-UPS IN PERCENT		TOTAL MARK-UPS		VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
					OCM	PROFIT	%	VALUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) (5) x (8)	(10) 5%[(5) + (9)]	(11) (9) + (10)	(12) (5) + (11)	(13) (12) / (3)
PART A - FACILITIES FOR THE ENGINEER												
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	1.00	L. S.	463,814.93	8.00	8.00	16.00	74,210.39	26,901.27	101,111.65	564,926.58	564,926.58
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for the Engineers	1.00	L. S.	200,598.00		8.00	8.00	16,047.84	10,832.29	26,880.13	227,478.13	227,478.13
A. 1.2	Operation and Maintenance of Gov't Service Vehicle	1.00	L.S.	543,174.67			0.00	-	27,158.73	27,158.73	570,333.40	570,333.40
PART B - OTHER GENERAL REQUIREMENTS												
B.5	Project Billboard/Signboard	2.00	units	7,300.90	8.00	8.00	16.00	1,168.14	423.45	1,591.60	8,892.50	4,446.25
B.7	Occupational Safety and Health Program	1.00	L. S.	229,787.60		8.00	8.00	18,383.01	12,408.53	30,791.54	260,579.14	260,579.14
B.4 (1)	Construction Survey and Staking	4.62	km.	124,584.01	8.00	8.00	16.00	19,933.44	7,225.87	27,159.31	151,743.33	32,844.88
B.9	Mobilization & Demobilization	1.00	L. S.	582,776.00			0.00	-	29,138.80	29,138.80	611,914.80	611,914.80
PART C - EARTHWORK												
101(4)c	Removal of Structures & Obstructions(Removal of Exlg. RCCP 910mmdia.)	10.00	ln.m.	5,560.51	8.00	8.00	16.00	889.68	322.51	1,212.19	6,772.70	677.27
102(2)	Surplus Common Excavation	401,627.00	cu.m.	56,787,101.38	8.00	8.00	16.00	9,085,936.22	3,293,651.88	12,379,588.10	69,166,689.48	172.22
102(3)	Surplus Rock Excavation	5,787.00	cu.m.	1,127,248.95	8.00	8.00	16.00	180,359.83	65,380.44	245,740.27	1,372,989.23	237.25
103(1)a	Structure Excavation	1,885.50	cu.m.	433,883.06	8.00	8.00	16.00	69,421.29	25,165.22	94,586.51	528,469.56	280.28
103(3)	Foundation Fill	78.00	cu. m.	67,148.00	8.00	8.00	16.00	10,743.68	3,894.58	14,638.26	81,786.26	1,048.54
103(6)a	Pipe Culvert and Drain Excavation	1,192.00	cu.m.	274,297.85	8.00	8.00	16.00	43,887.66	15,909.28	59,796.93	334,094.79	280.28
104(1)a1	Embankment from Excavation	137,042.50	cu.m.	28,266,020.15	8.00	8.00	16.00	4,522,563.22	1,639,429.17	6,161,992.39	34,428,012.54	251.22
105(1)a	Subgrade Preparation	33,387.00	sq.m.	533,474.18	8.00	8.00	16.00	85,355.87	30,941.50	116,297.37	649,771.55	19.46
PART D - SUBBASE AND BASE COURSE												
200(1)	Aggregate Subbase Course, 0.30 m. thick	18,026.50	cu. m.	16,747,447.72	8.00	8.00	16.00	2,679,591.64	971,351.97	3,650,943.60	20,398,391.32	1,131.58
PART E - SURFACE COURSES												
300(1)	Gravel Surface Course, 0.15m. Thick	1,274.50	cu. m.	1,384,866.60	8.00	8.00	16.00	221,578.66	80,322.26	301,900.92	1,686,767.52	1,323.47
311(1)e1	Portland Cement Concrete Pavement, 0.28 m. thick	32,862.00	sq. m.	49,447,718.65	8.00	8.00	16.00	7,911,634.98	2,867,967.68	10,779,602.67	60,227,321.32	1,832.73
311(1)a	Portland Cement Concrete Pavement, 0.15 m thick	6,748.50	sq. m.	5,618,668.15	8.00	8.00	16.00	898,986.90	325,882.75	1,224,869.66	6,843,537.80	1,014.08
PART F - BRIDGE CONSTRUCTION												
404(1)a	Reinforcing Steel, (Grade 40)	30,490.00	kg.	1,504,482.37	8.00	8.00	16.00	240,717.18	87,259.98	327,977.16	1,832,459.53	60.10
404(1)b	Reinforcing Steel, (Grade 60)	38,574.00	kg.	1,984,370.68	8.00	8.00	16.00	317,499.31	115,093.50	432,592.81	2,416,963.49	62.66
405(1)a3	Structural Concrete, Class"A"	1,150.50	cu.m.	7,328,407.71	8.00	8.00	16.00	1,172,545.23	425,047.65	1,597,592.88	8,926,000.60	7,758.37
407 (8)	Lean Concrete	78.00	cu.m.	363,222.69	8.00	8.00	16.00	58,115.63	21,066.92	79,182.55	442,405.24	5,671.86
PART G- DRAINAGE AND SLOPE PROTECTION STRUCTURES												
500(1)b3	Reinf. Conc. Culvert Pipe, 910mm dia.	579.00	ln. m.	1,629,531.42	8.00	8.00	16.00	260,725.03	94,512.82	355,237.85	1,984,769.27	3,427.93
505(2)a	Grouted Riprap, Class "A"	90.00	cu. m.	282,121.01	8.00	8.00	16.00	45,139.36	16,363.02	61,502.38	343,623.39	3,818.04
506	Stone Masonry	344.00	cu. m.	1,328,943.23	8.00	8.00	16.00	212,630.92	77,078.71	289,709.62	1,618,652.85	4,705.39
508(1)	Handlaid Rock Embankment	60.00	cu. m.	87,193.17	8.00	8.00	16.00	13,950.91	5,057.20	19,008.11	106,201.29	1,770.02
PART E - MISCELLANEOUS STRUCTURES												
612(1)	Reflectorized Thermoplastic Pavement Marking, White	1,082.50	sq.m.	830,144.16	8.00	8.00	16.00	132,823.07	48,148.36	180,971.43	1,011,115.59	934.06
612(2)	Reflectorized Thermoplastic Pavement Marking, Yellow	390.00	sq.m.	329,964.25	8.00	8.00	16.00	52,794.28	19,137.93	71,932.21	401,896.46	1,030.50
622(1)a	Coco-net (CGN 400)	62,309.50	sq.m.	8,743,313.64	8.00	8.00	16.00	1,398,930.18	507,112.19	1,906,042.37	10,649,356.01	170.91
622(1)b	Coco-net (CGN 700)	9,532.50	sq.m.	1,447,816.54	8.00	8.00	16.00	231,650.65	83,973.36	315,624.01	1,763,440.54	184.99
622(2)	Coco-logs/Fascine	5,250.00	ln.m.	2,406,816.73	8.00	8.00	16.00	385,090.68	139,595.37	524,686.05	2,931,502.77	558.38
622(3)	Vegetation	71,842.00	sq.m.	6,376,645.27	8.00	8.00	16.00	1,020,263.24	369,845.43	1,390,108.67	7,766,753.94	108.11
				197,488,444.19							**240,315,612.92**	

Prepared /Submitted by :

BELEN A. SAPALLEDA
Engineer IV - Chairman Estimating Committee

Recommending Approval:

CAYAMOMBAO D. DIA
Assistant Regional Director

Approved :

JORGE U. SEBASTIAN, JR. CESO III
Regional Director

PROJECT : PAVING OF UNPAVED ROADS - SECONDARY ROADS - ZAMBOANGA WEST COASTAL ROAD (LIMPAPA - SIBUCO SECTION) - (SO1150MN), ZAMBOANGA DEL NORTE

LIMITS : Chainage 940.00 - Chainage 1183.00, Chainage 1683.00 - Chainage 2260.00, Chainage 200.00 - Chainage 4000.00

NET LENGTH : 4,620.00

WORK PROGRAMME/SCHEDULE

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	DURATION NO. OF DAYS
	MOBILIZATION			
101(4)c	Removal of Structures & Obstructions(Removal of Extg.	10.00	ln.m.	0.31
102(2)	Surplus Common Excavation	401,627.00	cu.m.	139.45
102(3)	Surplus Rock Excavation	5,787.00	cu.m.	3.23
103(1)a	Structure Excavation	1,885.50	cu.m.	11.78
103(3)	Foundation Fill	78.00	cu. m.	7.80
103(6)a	Pipe Culvert and Drain Excavation	1,192.00	cu.m.	7.45
104(1)a1	Embankment from Excavation	137,042.50	cu.m.	94.79
105	Subgrade Preparation	33,387.00	sq.m.	13.91
200	Aggregate Subbase Course	18,026.50	cu. m.	45.07
300(1)	Gravel Surface Course, 0.15m. Thick	1,274.50	cu. m.	3.19
311a	Portland Cement Concrete Pavement, 0.28 m. thick	32,862.00	sq. m.	71.44
311b	Portland Cement Concrete Pavement, 0.15 m thick	6,748.50	sq. m.	7.86
404(1)a	Reinforcing Steel, (Grade 40)	30,490.00	kg.	10.59
404(1)b	Reinforcing Steel, (Grade 60)	38,574.00	kg.	13.39
405(1)a3	Structural Concrete, Class"A"	1,150.50	cu.m.	34.24
407 (8)	Lean Concrete	78.00	cu.m.	6.96
500(1a)	Reinforced Concrete Culvert Pipe, 910 mm. Diameter	579.00	ln. m.	20.63
505(5)	Grouted Riprap, Class "A"	90.00	cu. m.	9.00
506	Stone Masonry	344.00	cu. m.	27.52
508(1)	Handlaid Rock Embankment	60.00	cu. m.	2.40
612(1)	Reflectorized Thermoplastic Pavement Marking, White	1,082.50	sq.m.	5.41
612(2)	Reflectorized Thermoplastic Pavement Marking, Yellow	390.00	sq.m.	1.95
622(1)a	Coco-net (CGN 400)	62,309.50	sq.m.	77.89
622(1)b	Coco-net (CGN 700)	9,532.50	sq.m.	11.92
622(2)	Coco-logs/Fascine	5,250.00	ln.m.	21.88
622(3)	Vegetation	71,842.00	sq.m.	47.89
A.1.1(3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	1.00	L. S.	15.00
A.1.1(11)	Provision of Furnitures/Fixtures,Equipment and Appliances for theField Office for	1.00	L. S.	15.00
A.1.1(11)	Operation and Maintenance of Gov't Service Vehicle	1.00	L. S.	0.00
B.5	Project Billboard	2.00	units	0.25
B.7	Const. Safety and Health Program	1.00	L. S.	440.00
B.4 (1)	Construction Survey and Staking	4.62	km.	46.20
	DEMOBILIZATION			

WEEKS (6 WORKING DAYS) 1–40

TOTAL NO. OF WORKING DAYS	:	320
INCLEMENT WEATHER & CURING TIME	:	80
NUMBER OF SUNDAYS	:	40
TOTAL NO. OF CALENDAR DAYS	:	440

Prepared:

JOSEPHINE B. RENGQUIJO
Engineer II

Submitted:

LEONCIO B. SOLAMILLO
Chief, Construction Division

Approved:

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

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1 (3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L.S.
Output per hour:
Quantity: 1.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1		611.92	-
	b. Masons	4		443.20	-
	c. Carpenters	6		443.20	-
	d. Laborers	10		342.24	-
	Sub-total for A			P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2009 ACEL Rates)				
	a. Bagger Mixer	1		1,376.00	-
	b. Water Truck	1		19,600.00	-
	c. Minor Tools, 10% of Labor			0.00	-
	Sub-total for B			P	-
C.	Total (A+B)				-
D.	Output/day				
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	10mm dia. Sag rod	15.00	kg.	48.00	720.00
	20mm dia. X 350mm Anchor Bolts	15.00	pc.	150.00	2,250.00
	Welding Rod	25.00	kg.	130.00	3,250.00
	Primer, Zinc Cromate	5.00	gal.	531.00	2,655.00
	Pre-panited G.I. Roofing Sht. Long span	55.00	sq.m.	420.00	23,100.00
	Pre-painted flashing Ridge Roll GA24,0.60m width	10.00	ln.m.	189.00	1,890.00
	Pre-painted flashing, GA 24	2.00	ln.m.	189.00	378.00
	Teckscrew 1-1/2"	1,000.00	pc.	1.25	1,250.00
	Roof Sealant	2.00	lit.	230.00	460.00
	Rough Lumber, Sun dries Tanguile	450.00	bd.ft.	37.00	16,650.00
	Finishing Nails	5.00	kg.	280.00	1,400.00
	Wood Preservative Brown	-	lit.	7,245.00	-
	2 x 40w Flourescent lighting fixtures	5.00	set	1,450.00	7,250.00
	Porcelain Ceiling Outlet w/female	2.00	pc.	50.00	100.00
	Duplex Convenience Outlet	3.00	pc.	170.00	510.00
	Two gang Switch	3.00	pc.	132.00	396.00
	3.50mm2 THW	1.00	roll	3,600.00	3,600.00
	8.00mm2 THW	20.00	m.	69.33	1,386.60
	15mm dia. PVC pipe	20.00	pc.	76.00	1,520.00
	15mm dia. PVC Coupling	20.00	pc.	27.00	540.00
	15mm dia. PVC Elbow	20.00	pc.	26.00	520.00
	15mm dia. PVC Clamp	50.00	pc.	8.00	400.00
	20mm dia. RSC Pipe	4.00	pc.	240.00	960.00
	20mm dia. RSC Coupling	3.00	pc.	36.00	108.00
	20mm dia. RSC Elbow	3.00	pc.	30.00	90.00
	20mm dia. RSC Clamp	10.00	pc.	18.00	180.00
	20mm dia. Service Entrance Cap	2.00	pc.	101.50	203.00
	Wire Holder	2.00	pc.	50.00	100.00
	Utility Box	7.00	pc.	32.00	224.00
	Octagon Box	50.00	pc.	34.00	1,700.00
	Sub-total for E			P	73,790.60
F.	Direct Cost (C + E)				73,790.60
G.	Overhead, Contingencies and Miscellaneous		8% 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		
L.	Total Unit Cost				

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8

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:	PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE	
Item No./Description:	A.1.1 (3)	Construction of Field Office for the Engineer (7.0m. X 9.0 m.)
Unit of Measurement:	L. S.	
Output per hour:		
Quantity:	1.00	

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Electrical Tape(big)	7.00	pc.	28.00	196.00
Panel Board9Side main w/ branches)	2.00	set	2,750.00	5,500.00
Water Closet(include,fitting&Accessories)	1	set	6,062.00	6,062.00
Lavatory(include fitting & accessories)	1	set	4,512.00	4,512.00
1/2' GI Pipe S-40	2	pc.	292.00	584.00
1/2" Water Faucet	2	pc.	165.00	330.00
1/2' Assorted Connector	8	pc.	19.00	152.00
4" PVC Series 1000	1	pc.	640.00	640.00
2" PVC Series 1000	1	pc.	305.00	305.00
4" PVC Assorted Connector	6	pc.	77.00	462.00
2" PVC Assorted Connector	8	pc.	56.00	448.00
				-
				-
Sub-total for E			P	19,191.00
F. Direct Cost (C + E)				19,191.00
G. Overhead, Contingencies and Miscellaneous				-
H. Contractor's Profit(CP)				
I. Value Added Tax (VAT)				
L. Total Unit Cost				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities, Materials Testing Apparatus& Supplies				-
Electric Bill	0.00	mo.	0.00	-
Water Bill	0.00	mo.	0.00	-
White Board , 3' x 6'	1	each.	2,000.00	2,000.00
8-seater Monoblock Dining Table	1	unit	3,000.00	3,000.00
Monoblock Backrest Chair	12	pcs.	500.00	6,000.00
Plastic Pail & Basin	2	set	300.00	600.00
Aluminum Cookware	1	set	3,000.00	3,000.00
each Plate, Glass, Spoon & Fork	1	doz	1,900.00	1,900.00
6" Sleeping Bed, Good Quality w/ pillows & blanket	3	each.	5,000.00	15,000.00
Office Table, Jr. Executive type	1	each.	7,000.00	7,000.00
w/ chair				-
Drawing Table	1	each.	5,000.00	5,000.00
Computer Table	1	each.	3,000.00	3,000.00
Cartridge(Computer Printer/Ink)	6	sets	1,800.00	10,800.00
CD RW	15	pc.	35.00	525.00
DVD Recordable & Writer	2	pc.	55.00	110.00
Bond paper (Long)	16	ream	330.00	5,280.00
Bond paper (Short)	15	ream	270.00	4,050.00
Yellow pad	6	pads	34.00	204.00
Scotch Tape	6	rolls	45.00	270.00
Masking Tape	6	rolls	134.00	804.00
Batteries" Energizer"	15	pc.	48.00	720.00
Ballpen	4	box	200.00	800.00
Pencil Lead, No. 5	4	box	150.00	600.00
Paper Clip(Plastic coated)	4	box	40.00	160.00
Fastener(plastic coated)	6	box	60.00	360.00
Eraser(Ink, pencil)	6	box	20.00	120.00
Staple wire	6	box	250.00	1,500.00
Cutter blade	3	box	250.00	750.00
Glue, 130 grams	6	bottle	85.00	510.00
Correction Fluid Pen	6	bottle	50.00	300.00
Brown Envelope, Long & Short	5	doz.	85.00	425.00
Expanded Envelope, long	5	doz.	125.00	625.00
Colored Pencil, 12's	6	set	145.00	870.00
Folder, short	6	doz.	90.00	540.00
Folder, long	6	doz.	95.00	570.00
Pentel pen (Assorted colors)	6	pcs.	60.00	360.00
White Board Marker(Assorted colors)	6	pcs.	85.00	510.00
Letter Envelope, White(Long)	1	box	100.00	100.00
Data File Folder	6	pcs.	100.00	600.00
Sign Pen, Assorted Colors	2	doz.	900.00	1,800.00
				-
Sub-total for E			P	80,763.00
F. Direct Cost (C + E)				200,598.00
G. Overhead, Contingencies and Miscellaneous		per D.O.197 s 2016		-
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		16,047.84
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		10,832.29
L. Total Unit Cost				227,478.13

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities, Materials Testing Apparatus& Supplies				
Desktop Computer	1	unit	60,000.00	60,000.00
Digital Camera (12 MP)	1	unit	10,000.00	10,000.00
Computer Printer (Scanner & Xerox)	1	unit	5,000.00	5,000.00
USB (16GB)	2	pcs.	800.00	1,600.00
Water Dispenser	1	unit	7,000.00	7,000.00
Electric Fan	2	pcs.	1,500.00	3,000.00
Steel Cabinet	1	unit	4,500.00	4,500.00
Gas Stove w/tank	1	set	3,500.00	3,500.00
stove tank refill	10	tanks	890.00	8,900.00
Wall Clock	2	pcs.	350.00	700.00
Rice Cooker	1	unit	1,200.00	1,200.00
Scientific Calculator	1	pc.	2,500.00	2,500.00
Electric Airpot	1	unit	1,500.00	1,500.00
water container	4	pcs.	200.00	800.00
puncher	1	pc.	250.00	250.00
Stapler no. 35	2	pcs.	350.00	700.00
Bulletin/Cork Board 2" x 3"	2	pc.	500.00	1,000.00
Scissors	5	pcs.	35.00	175.00
Record Book (500 leaves)	6	pcs.	110.00	660.00
Folding beds	2	pcs.	1,700.00	3,400.00
Bedsheets (Single)	6	pcs.	200.00	1,200.00
Rechargeable Lamps	3	unit	750.00	2,250.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	119,835.00
F. Direct Cost (C + E)				119,835.00
G. Overhead, Contingencies and Miscellaneous				-
H. Contractor's Profit(CP)				
I. Value Added Tax (VAT)				
L. Total Unit Cost				

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: A. 1.2 Operation and Maintenance of Gov't Service Vehicle

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Service Driver	1	440.00	443.20	195,008.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	195,008.00
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.					
	a. SERVICE VEHICLE (4 x 4)	1	14.67		-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	-
C.	Total (A+B)				195,008.00
D.	Output/day				
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. liters, Diesel Fuel	4,400.00	liter	50.00	220,000.00
	b. Engine Oil & Lubricants	1.00	l.s.	33,000.00	33,000.00
	b. Tires	5.00	pcs.	9,500.00	47,500.00
	b. Spare parts etc.	1.00	l.s.	47,666.67	47,666.67
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	348,166.67
F.	Direct Cost (C + E)				543,174.67
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		27,158.73
L.	Total Unit Cost				570,333.40

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: km.

Output per hour:

Quantity: 4.62

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Fieldworks:				
(assumed output =0.300 km.)				
a. Geodetic Engineer	1	15.40	833.31	12,832.97
b. Skilled Laborer	1	15.40	443.20	6,825.28
c. Laborer	1	15.40	342.24	5,270.50
				-
For Office works:				
(assumed output =0.100km.)				
a. Geodetic Engineer	1	46.20	833.31	38,498.92
b. Skilled Laborer	1	46.20	443.20	20,475.84
				-
				-
Sub-total for A			P	83,903.51
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Total Station complete w/ accessories	1	15.40	800.00	12,320.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	12,320.00
C. Total (A+B)				96,223.51
D. Output/day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Standard Stake Plan	73.00	sheets	200.00	14,600.00
(800mm x 910mm plotting)				-
b. blue print as stake plan	365.00	pcs.	34.00	12,410.00
miscellaneous(5% of Materials)				1,350.50
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	28,360.50
F. Direct Cost (C + E)				124,584.01
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		9,966.72
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		9,966.72
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		7,225.87
L. Total Unit Cost				32,844.88

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: units

Output per hour:

Quantity: 2.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. 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 Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a.				
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	-
C. Total (A+B)				434.90
D. Output/day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Marine Plywood 3/16" thk 4' x 8'	2.00	pc.	423.00	846.00
b. Tarpaulin (4' x 8')	2.00	pc.	800.00	1,600.00
c. Assorted Sizes Lumber	100.00	bd. ft.	42.00	4,200.00
d. Assorted Sizes C.W. Nails	2.00	kg.	110.00	220.00
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	6,866.00
F. Direct Cost (C + E)				7,300.90
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		584.07
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		584.07
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		423.45
L. Total Unit Cost				4,446.25

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE
Item No./Description: B.7 Occupational Safety and Health Program
Unit of Measurement: L. S.
Output per hour:
Quantity: 1.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Safety Practitioner	1	110.00	443.20	48,752.00
b. First Aider	1	440.00	342.24	150,585.60
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	199,337.60
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	-
C. Total (A+B)				199,337.60
D. Output/day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Medical Supplies	0.00	set	5,000.00	-
b. Pairs, Rubber Boots Men, Long, with Steel Toe, Black	30.00	pair	400.00	12,000.00
c. Pairs, Working Gloves (Maong Materials)	30.00	pair	15.00	450.00
d. Pcs., Rain Coats (Rainforced, Hip Length Small, Medium, & Large)	30.00	pcs.	100.00	3,000.00
				-
e. Barricades/Signboards	1.00	L.S	15,000.00	15,000.00
				-
				-
				-
				-
				-
				-
Sub-total for E			P	30,450.00
F. Direct Cost (C + E)				229,787.60
G. Overhead, Contingencies and Miscellaneous		per D.O.197 s 2016		
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		18,383.01
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		12,408.53
L. Total Unit Cost				260,579.14

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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, (2009 ACEL Rates)				
a. Low Bed trailer	4	2.00	34,043.00	272,344.00
Water Truck	2	2.00	19,600.00	78,400.00
Backhoe	2	0.00	12,296.00	-
Payloader	2	0.00	13,864.00	-
Dumptrucks	10	2.00	7,384.00	147,680.00
Road Roller	2	0.00	9,011.60	-
Road grader	1	0.00	17,384.00	-
Transit Mixer	4	2.00	10,544.00	84,352.00
Portable Screed	1	0.00	2,834.00	-
Concrete Vibrator	2	2.00	0.00	-
Concrete Cutter	2	2.00	0.00	-
Bar Cutter	1	2.00	0.00	-
Conc. Mixer(1 Bagger)	1	2.00	0.00	-
Plate Compactor	2	2.00	0.00	-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	582,776.00
C. Total (A+B)				582,776.00
D. Output/day				
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				-
Sub-total for E			P	-
F. Direct Cost (C + E)				582,776.00
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		29,138.80
L. Total Unit Cost				611,914.80

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 101(4)c Removal of Structures & Obstructions(Removal of Extg. RCCP,910mmdia.)

Unit of Measurement: ln.m.

Output per hour: 4.00 ln.m./hr.

Quantity: 10.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	0.31	611.92	191.23
b. Laborers	2	0.31	342.24	213.90
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	405.13

Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2009 ACEL Rates)				
a. Backhoe	1	0.31	12,296.00	3,842.50
b. Boom Truck	1	0.16	8,143.20	1,272.38
				-
Minor Tools (10% of Labor)				40.51
				-
				-
				-
				-
				-
				-
Sub-total for B			P	5,155.39
C. Total (A+B)				5,560.51
D. Output/day 32.00	ln.m./day			556.05

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	-
F. Direct Cost (C + E)				5,560.51
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		444.84
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		444.84
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		322.51
L. Total Unit Cost				677.27

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: cu.m.

Output per hour: 60.00 cu.m./hr.

Quantity: 401,627.00

Use 6 gangs for labor & equipment

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	139.45	611.92	85,334.58
	b. Laborers	12	139.45	342.24	572,720.10
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	658,054.68
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Bulldozer	6	139.45	27,032.00	22,618,293.88
	b. Payloader	6	139.45	13,864.00	11,600,326.52
	c. Payloader	6	34.86	13,864.00	2,900,081.63
	d. Dump truck	12	139.45	11,360.00	19,010,344.67
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	56,129,046.70
C.	Total (A+B)				56,787,101.38
D.	Output/day 2,880.00	cu.m./day			141.39
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a.				-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	-
F.	Direct Cost (C + E)				56,787,101.38
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		4,542,968.11
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		4,542,968.11
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		3,293,651.88
L.	Total Unit Cost				172.22

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 102(3) Surplus Rock Excavation

Unit of Measurement: cu.m.

Output per hour: 56.00 cu.m./hr.

Quantity: 5,787.00 **Use 4 gangs for labor & equipment**

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	3.23	611.92	1,976.11
	b. Laborers, Unskilled	8	3.23	342.24	8,841.71
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	10,817.81
Name and Capacity		**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Bulldozer w/ ripper	4	3.23	31,086.80	401,560.96
	b. Payloader	4	3.23	13,864.00	179,086.98
	c. Payloader	4	0.65	13,864.00	35,817.40
	d. Dump truck	8	3.23	11,360.00	293,483.57
	a. Backhoe w/ attachment	4	3.23	15,984.80	206,482.23
					-
					-
	Sub-total for B			P	1,116,431.14
C.	Total (A+B)				1,127,248.95
D.	Output/day 1,792.00	cu.m./day			194.79
Name and Specifications		**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	-
F.	Direct Cost (C + E)				1,127,248.95
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		90,179.92
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		90,179.92
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		65,380.44
L.	Total Unit Cost				237.25

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 103(1)a Structure Excavation

Unit of Measurement: cu.m.

Output per hour: 20 cu.m./hr.

Quantity: 1,885.50

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	11.78	611.92	7,211.09
	b. Laborers	3	11.78	342.24	12,099.25
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	19,310.35
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Dumptruck	2	11.78	11,360.00	267,741.00
	b. Backhoe	1	11.78	12,296.00	144,900.68
	Minor Tools(10% of Labor)				1,931.03
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	414,572.71
C.	Total (A+B)				433,883.06
D.	Output/day 160.00	cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a.				-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	-
F.	Direct Cost (C + E)				433,883.06
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		34,710.64
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		34,710.64
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		25,165.22
L.	Total Unit Cost				280.28

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 103(3) Foundation Fill
Unit of Measurement: cu. m.
Output per hour: 1.25 cu.m./hr.
Quantity: 78.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	7.80	611.92	4,772.98
b. Laborers	4	7.80	342.24	10,677.89
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	15,450.86
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Plate Compactor	1	7.80	984.00	7,675.20
b. Water Truck	1	0.0780	19,600.00	1,528.80
Minor tools (10% of labor)				1,545.09
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	10,749.09
C. Total (A+B)				26,199.95
D. Output/day 10.00	cu.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Filling Materials	89.70	cu. m.	456.50	40,948.05
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	40,948.05
F. Direct Cost (C + E)				67,148.00
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		5,371.84
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		5,371.84
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		3,894.58
L. Total Unit Cost				1,048.54

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE
Item No./Description: 103(6)a Pipe Culvert and Drain Excavation
Unit of Measurement: cu.m.
Output per hour: 20.00 cu.m./hr.
Quantity: 1,192.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	7.45	611.92	4,558.80
b. Laborers	3	7.45	342.24	7,649.06
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	12,207.87
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Backhoe	1	7.45	12,296.00	91,605.20
b. Dumptruck	2	7.45	11,360.00	169,264.00
Minor Tools, 10% of Labor				1,220.79
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	262,089.99
C. Total (A+B)				274,297.85
D. Output/day 160.00	cu.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	-
F. Direct Cost (C + E)				274,297.85
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		21,943.83
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		21,943.83
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		15,909.28
L. Total Unit Cost				280.28

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: cu.m.

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

Quantity: 137,042.50 **Use 3 gangs for labor & equipment**

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For ExcavationWork:				
a. Const. Foreman	1	94.79	611.92	58,002.51
b. Laborers	6	94.79	342.24	194,640.91
				-
For Spreading and Compaction:				
a. Const. Foreman	1	114.20	611.92	69,882.54
b. Laborers	6	114.20	342.24	234,507.13
				-
				-
				-
				-
Sub-total for A			P	557,033.09
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
For Excavation Work:				-
a. Bulldozer	3	78.67	27,032.00	6,380,131.72
b. Payloader	3	78.67	13,864.00	3,272,201.32
c. Dump Truck	6	78.67	11,360.00	5,362,407.24
Spreading and Compaction:				-
a. Road grader	3	114.20	17,384.00	5,955,867.05
b. Road Roller	3	114.20	14,768.00	5,059,609.10
c. Water truck	3	28.55	19,600.00	1,678,770.63
				-
				-
				-
				-
Sub-total for B			P	27,708,987.06
C. Total (A+B)				28,266,020.15
D. Output/day 1,200.00	cu.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a.				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	-
F. Direct Cost (C + E)				28,266,020.15
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		2,261,281.61
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		2,261,281.61
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		1,639,429.17
L. Total Unit Cost				251.22

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: sq.m.

Output per hour: 300 sq.m./hr.

Quantity: 33,387.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	13.91	611.92	8,512.57
	b. Laborers	2	13.91	342.24	9,521.97
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	18,034.54
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2009 ACEL Rates)				
	a. Road Grader	1	13.91	17,384.00	241,833.17
	b. Road Roller	1	13.91	14,768.00	205,441.34
	c. Water Truck	1	3.48	19,600.00	68,165.13
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	515,439.64
C.	Total (A+B)				533,474.18
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	-
F.	Direct Cost (C + E)				533,474.18
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		42,677.93
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		42,677.93
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		30,941.50
L.	Total Unit Cost				19.46

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 200(1) Aggregate Subbase Course, 0.30 m. thick
Unit of Measurement: cu. m.
Output per hour: 50.00 cu.m./hr.
Quantity: 18,026.50

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	45.07	611.92	27,576.94
b. Laborers	2	45.07	342.24	30,846.95
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	58,423.89
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
b. Road Grader	1	45.07	17,384.00	783,431.69
c. Road Roller	1	45.07	14,768.00	665,538.38
i. Water Truck	1	11.27	19,600.00	220,824.63
Sub-total for B			P	1,669,794.70
C. Total (A+B)				1,728,218.58
D. Output/day 400.00	cu.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Agg. Subbase Course	20,730.48	cu.m.	724.50	15,019,229.14
(w/ shrinkage of 15 %)				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	15,019,229.14
F. Direct Cost (C + E)				16,747,447.72
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		1,339,795.82
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		1,339,795.82
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		971,351.97
L. Total Unit Cost				1,131.58

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 300(1) Gravel Surface Course, 0.15m. Thick

Unit of Measurement: cu. m.

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

Quantity: 1,274.50

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	3.19	611.92	1,949.73
b. Laborers	2	3.19	342.24	2,180.92
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	4,130.65
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
b. Road Grader	1	3.19	17,384.00	55,389.77
c. Road Roller	1	3.19	14,768.00	47,054.54
i. Water Truck	1	0.80	19,600.00	15,612.63
Sub-total for B			P	118,056.94
C. Total (A+B)				122,187.59
D. Output/day 400.00	cu.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Agg. Subbase Course (w/ shrinkage of 15 %)	1,465.68	cu.m.	861.50	1,262,679.01
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	1,262,679.01
F. Direct Cost (C + E)				1,384,866.60
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		110,789.33
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		110,789.33
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		80,322.26
L. Total Unit Cost				1,323.47

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: sq. m.

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

Quantity: 32,862.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	71.44	611.92	43,715.03
b. Skilled	4	71.44	443.20	126,647.29
c. Laborers, Unskilled	12	71.44	342.24	293,391.94
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	463,754.26
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Transit Mixer	4	71.44	10,544.00	3,013,016.77
b. Concrete Vibrator	2	7.14	730.00	10,430.11
c. Batching Plant	1	71.44	14,076.00	1,005,577.20
d. Payloader	1	71.44	13,864.00	990,432.10
e. Concrete Screeder	1	71.44	4,360.00	311,474.61
f. Water Truck	1	71.44	19,600.00	1,400,206.96
g. Concrete Saw	1	71.44	261.04	18,648.47
h. Bar Cutter	1	7.14	1,758.00	12,559.00
Minor Tools (5% of labor)				23,187.71
				-
Sub-total for B			P	6,785,532.93
C. Total (A+B)				7,249,287.19
D. Output/day 460.00	sq.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Portland Cement (Type 1)	87,413.00	Bags	297.33	25,990,812.96
b. Fine Aggregates	5,061.00	cu. m.	956.50	4,840,846.50
c. Coarse Aggregates	9,202.00	cu. m.	956.50	8,801,713.00
d. Reinforcing Steel Bars	16,431.00	kgs	43.00	706,533.00
e. Asphalt Sealant	5,587.00	ltr	75.00	419,025.00
f. Curing Compound	9,530.00	ltr.	40.00	381,200.00
g. Concrete Saw	5.00	pcs.	8,000.00	40,000.00
h. Pipe Sleeve, 2" dia.	257.00	l.m.	133.00	34,181.00
i. Grease/Tar	257.00	lit.	300.00	77,100.00
j. Steel Forms (rental)	15,117.00	l.m.	60.00	907,020.00
				-
Sub-total for E			P	42,198,431.46
F. Direct Cost (C + E)				49,447,718.65
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		3,955,817.49
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		3,955,817.49
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		2,867,967.68
L. Total Unit Cost				1,832.73

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: sq. m.

Output per hour: 107.33 sq.m./hr.

Quantity: 6,748.50

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	7.86	611.92	4,809.40
b. Skilled	4	7.86	443.20	13,933.36
c. Laborers, Unskilled	12	7.86	342.24	32,278.11
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	51,020.87
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Transit Mixer	4	7.86	10,544.00	331,483.20
b. Payloader	1	7.86	13,864.00	108,964.41
c. Water Truck	1	7.86	19,600.00	154,046.63
d. Concrete Cutter	1	7.86	261.04	2,051.65
e. Concrete Vibrator	2	7.86	730.00	11,474.90
f. Bar Cutter	1	0.79	1,758.00	1,381.70
g. Concrete Screeder	1	7.86	4,360.00	34,267.52
h. Batching plant	1	7.86	14,076.00	110,630.63
Minor Tools(5% of labor)				2,551.04
				-
Sub-total for B			P	756,851.69
C. Total (A+B)				807,872.57
D. Output/day 858.64	sq.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Portland Cement (Type 1)	9,651.00	Bags	297.33	2,869,565.58
b. Fine Aggregates	557.00	cu. m.	956.50	532,770.50
c. Coarse Aggregates	1,013.00	cu. m.	956.50	968,934.50
d. Reinforcing Steel Bars	2,228.00	kgs	43.00	95,804.00
e. Asphalt Sealant	810.00	ltr	75.00	60,750.00
f. Curing Compond	1,958.00	ltr.	40.00	78,320.00
g. Steel Forms	3,105.00	ln.m.	60.00	186,300.00
h. Concrete Saw	2.00	pcs.	8,000.00	16,000.00
i. Pipe Sleeve, 1" dia.	53.00	l.m.	40.00	2,120.00
j. Grease/Tar	11.00	lit.	21.00	231.00
				-
				-
Sub-total for E			P	4,810,795.58
F. Direct Cost (C + E)				5,618,668.15
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		449,493.45
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		449,493.45
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		325,882.75
L. Total Unit Cost				1,014.08

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 404(1)a Reinforcing Steel, (Grade 40)
Unit of Measurement: kg.
Output per hour: 180.00 kg./hr.
Quantity: 30,490.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Foremam	1	10.59	611.92	6,478.28
	b. Skilled	4	10.59	443.20	18,768.29
	c. Laborers, Unskilled	16	10.59	342.24	57,971.65
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	83,218.22
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Bar Cutter	2	5.29	1,758.00	18,611.60
	b. Bar Bender	2	5.29	2,812.00	29,770.10
	c. Cargo Truck	2	0.79	9,696.00	15,397.45
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	63,779.15
C.	Total (A+B)				146,997.37
D.	Output/day 2,880.00	sq.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Reinforcing Steel Bars,Grade 40	32,015.00	kgs.	41.00	1,312,615.00
	b. Tie Wire	641.00	kgs.	70.00	44,870.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	1,357,485.00
F.	Direct Cost (C + E)				1,504,482.37
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		120,358.59
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		120,358.59
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		87,259.98
L.	Total Unit Cost				60.10

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 404(1)b Reinforcing Steel, (Grade 60)

Unit of Measurement: kg.

Output per hour: 180.00 kg./hr.

Quantity: 38,574.00 Use 2 gangs of labor * equipment

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	13.39	611.92	8,195.90
b. Skilled	4	13.39	443.20	23,744.44
c. Laborers, Unskilled	16	13.39	342.24	73,342.03
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	105,282.38
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Bar Cutter	2	6.70	1,758.00	23,546.21
b. Bar Bender	2	6.70	2,812.00	37,663.23
c. Cargo Truck	2	1.00	9,696.00	19,479.87
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	80,689.31
C. Total (A+B)				185,971.68
D. Output/day 2,880.00	sq.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Reinforcing Steel Bars,Grade 60	40,503.00	kgs.	43.00	1,741,629.00
b. Tie Wire	811.00	kgs.	70.00	56,770.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	1,798,399.00
F. Direct Cost (C + E)				1,984,370.68
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		158,749.65
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		158,749.65
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		115,093.50
L. Total Unit Cost				62.66

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 407 (8) Lean Concrete

Unit of Measurement: cu.m.

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

Quantity: 78.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Foreman	1	6.96	611.92	4,261.59
	b. Skilled	4	6.96	443.20	12,346.29
	c. Unkilled	8	6.96	342.24	19,067.66
					-
					-
					-
					-
	Sub-total for A			P	35,675.53
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. One bagger mixer	1	6.96	1,376.00	9,582.86
	b. Concrete vibrator	1	6.96	730.00	5,083.93
	c. Water truck	1	0.70	19,600.00	13,650.00
	Minor Tools (5% of Labor)				1,783.78
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	30,100.56
C.	Total (A+B)				65,776.09
D.	Output/day 11.20	ln.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Portland Cement	624.00	bag	297.33	185,536.10
	b. Fine Aggregates	39.00	cu.m.	956.50	37,303.50
	c. Coarse Aggregates	78.00	pc.	956.50	74,607.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	297,446.60
F.	Direct Cost (C + E)				363,222.69
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		29,057.82
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		29,057.82
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		21,066.92
L.	Total Unit Cost				5,671.86

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

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

Unit of Measurement: cu.m.

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

Quantity: 1,150.50 Use 3 gangs of equipment & labor

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	34.24	611.92	20,952.80
b. Skilled	12	34.24	443.20	182,107.71
c. Unskilled	24	34.24	342.24	281,247.94
Installation/Removal of Formworks				
b. Skilled	12	34.24	443.20	182,107.71
c. Unskilled	24	34.24	342.24	281,247.94
				-
				-
Sub-total for A			P	947,664.11
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. One bagger mixer	3	34.24	1,376.00	141,347.14
b. Concrete vibrator	3	34.24	730.00	74,987.95
c. Water truck	3	3.42	19,600.00	201,337.50
Minor Tools (5% of Labor)				47,383.21
				-
				-
				-
				-
				-
				-
Sub-total for B			P	465,055.79
C. Total (A+B)				1,412,719.91
D. Output/day 33.60	ln.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Portland Cement	10,930.00	bag	297.33	3,249,855.12
b. Fine Aggregates	575.25	cu.m.	956.50	550,226.63
c. Coarse Aggregates	1,150.50	pc.	956.50	1,100,453.25
d. Form lumber	20,133.75	pc.	42.00	845,617.50
e. Plywood	461.00	pc.	335.00	154,435.00
f. Assorted CWNails	201.34	pc.	75.00	15,100.31
				-
				-
				-
				-
				-
				-
Sub-total for E			P	5,915,687.81
F. Direct Cost (C + E)				7,328,407.71
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		586,272.62
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		586,272.62
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		425,047.65
L. Total Unit Cost				7,758.37

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 500(1)b3 Reinf. Conc. Culvert Pipe, 910mm dia.

Unit of Measurement: ln. m.

Output per hour: 1 ln.m./hr.

Quantity: 579.00 *Use 2 gangs for labor & equipment*

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	20.63	611.92	12,622.00
b. Skilled	4	20.63	443.20	36,567.32
c. Unkilled	8	20.63	342.24	56,474.73
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	105,664.05
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
a. Backhoe	2	5.98	12,296.00	147,104.27
b. Plate Compactor	2	5.98	984.00	11,772.17
c. Minor Tools, 10% of Labor				10,566.41
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	169,442.85
C. Total (A+B)				275,106.90
D. Output/day 16.00	ln.m./day			
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Portland Cement	626.00	bag	297.33	186,130.77
b. Fine Aggregate	35.32	cu.m.	956.50	33,782.62
c. 910 mm. Dia. R. C. Pipes	579.00	pc.	1,837.00	1,063,623.00
d. Sand Bedding	74.11	pc.	956.50	70,888.13
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	1,354,424.52
F. Direct Cost (C + E)				1,629,531.42
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		130,362.51
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		130,362.51
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		94,512.82
L. Total Unit Cost				3,427.93

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 505(2)a Grouted Riprap, Class "A"

Unit of Measurement: cu. m.

Output per hour: 1.25 cu.m./hr.

Quantity: 90.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Foreman	1	9.00	611.92	5,507.28
	b. Masons	2	9.00	443.20	7,977.60
	c. Unkilled	8	9.00	342.24	24,641.28
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	38,126.16
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Bagger Mixer	1	9.00	1,376.00	12,384.00
	b. Water Truck	1	0.45	19,600.00	8,820.00
	c. Minor Tools, 5% of labor				1,906.31
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	23,110.31
C.	Total (A+B)				61,236.47
D.	Output/day	10.00 cu.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	a. Portland Cement	270.00	bag	297.33	80,280.04
	b. Fine Aggregate	23.00	cu.m.	956.50	21,999.50
	c. Boulders	95.00	cu. m.	1,206.50	114,617.50
	d. 50 mm. (2") Dia. PVC Pipe	27.00	l.m.	106.33	2,871.00
	e. Gravel Fill	1.00	cu. m.	956.50	956.50
	f. Filter Cloth	1.00	sq.m.	160.00	160.00
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	220,884.54
F.	Direct Cost (C + E)				282,121.01
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		22,569.68
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		22,569.68
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		16,363.02
L.	Total Unit Cost				3,818.04

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE
Item No./Description: 506 Stone Masonry
Unit of Measurement: cu. m.
Output per hour: 1.5625 cu.m./hr.
Quantity: 344.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Foreman	1	27.52	611.92	16,840.04
	b. Masons	2	27.52	443.20	24,393.73
	c. Unskilled	8	27.52	342.24	75,347.56
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	116,581.32
	Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2009 ACEL Rates)				
	a. Bagger Mixer	1	27.52	1,376.00	37,867.52
	b. Water Truck	1	1.38	19,600.00	26,969.60
	c. Backhoe(Wheel Type)	1	2.75	7,376.00	20,298.75
	Minor Tools, 10% of labor				11,658.13
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	96,794.00
C.	Total (A+B)				213,375.33
D.	Output/day 12.50	cu.m./day			620.28
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Portland Cement	1,892.00	bag	297.33	562,554.98
	b. Fine Aggregate	103.20	cu.m.	956.50	98,710.80
	c. Boulders	361.20	cu. m.	1,206.50	435,787.80
	d. 50 mm. (2") Dia. PVC Pipe	103.20	ln.m.	106.33	10,973.60
	e. Gravel Fill	6.88	cu. m.	956.50	6,580.72
	f. Filter Cloth	6.00	sq.m.	160.00	960.00
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	1,115,567.90
F.	Direct Cost (C + E)				1,328,943.23
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		106,315.46
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		106,315.46
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		77,078.71
J.	Total Unit Cost				4,705.39

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 508(1) Handlaid Rock Embankment

Unit of Measurement: cu. m.

Output per hour: 3.125 cu.m./hr.

Quantity: 60.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	2.40	611.92	1,468.61
b. Masons	2	2.40	443.20	2,127.36
c. Unskilled	8	2.40	342.24	6,571.01
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	10,166.98
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
				-
				-
				-
Minor Tools, 10% of labor				1,016.70
				-
				-
				-
				-
				-
				-
Sub-total for B			P	1,016.70
C. Total (A+B)				11,183.67
D. Output/day 25.00	cu.m./day			186.39
Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E. Materials				
a. Boulders	63.00	cu. m.	1,206.50	76,009.50
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	76,009.50
F. Direct Cost (C + E)				87,193.17
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		6,975.45
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		6,975.45
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		5,057.20
J. Total Unit Cost				1,770.02

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 622(1)a Coco-net (CGN 400)

Unit of Measurement: sq.m.

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

Quantity: 62,309.50

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	77.89	611.92	47,660.54
	b. Unskilled Laborer	16	77.89	342.24	426,496.07
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	474,156.60
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Water truck	2	19.47	19,600.00	763,291.38
					-
					-
	Minor Tools(10% of Labor)				47,415.66
					-
					-
					-
					-
					-
	Sub-total for B			P	810,707.04
C.	Total (A+B)				1,284,863.64
D.	Output/day 800.00	sq.m./day			
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	Erosion Control Net CGN 400 w/ 5% wastage (Price includes bamboo pegs)	65,425.00	sq.m.	114.00	7,458,450.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	7,458,450.00
F.	Direct Cost (C + E)				8,743,313.64
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		699,465.09
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		699,465.09
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		507,112.19
L.	Total Unit Cost				170.91

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 622(1)b Coco-net (CGN 700)

Unit of Measurement: sq.m.

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

Quantity: 9,532.50

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	11.92	611.92	7,291.41
	b. Unskilled Laborer	16	11.92	342.24	65,248.06
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	72,539.47
Name and Capacity		**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Water truck	2	2.98	19,600.00	116,773.13
					-
					-
	Minor Tools(10% of Labor)				7,253.95
					-
					-
					-
					-
					-
	Sub-total for B			P	124,027.07
C.	Total (A+B)				196,566.54
D.	Output/day 800.00	sq.m./day			
Name and Specifications		**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	Erosion Control Net CGN 700 w/ 5% wastage (Price includes bamboo pegs)	10,010.00	sq.m.	125.00	1,251,250.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	1,251,250.00
F.	Direct Cost (C + E)				1,447,816.54
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		115,825.32
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		115,825.32
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		83,973.36
L.	Total Unit Cost				184.99

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 622(2) Coco-logs/Fascine

Unit of Measurement: ln.m.

Output per hour: 15.00 ln.m./hr.

Quantity: 5,250.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	21.88	611.92	13,385.75
b. Unskilled Laborer	16	21.88	342.24	119,784.00
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	133,169.75
Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B. Equipment, (2009 ACEL Rates)				
				-
				-
				-
Minor Tools(10% of Labor)				13,316.98
				-
				-
				-
				-
				-
Sub-total for B			P	13,316.98
C. Total (A+B)				146,486.73
D. Output/day 240.00	sq.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)	5,513.00	ln.m.	410.00	2,260,330.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	2,260,330.00
F. Direct Cost (C + E)				2,406,816.73
G. Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		192,545.34
H. Contractor's Profit(CP)		8% per D.O.197 s 2016		192,545.34
I. Value Added Tax (VAT)		5% per D.O.197 s 2016		139,595.37
L. Total Unit Cost				558.38

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: 622(3) Vegetation

Unit of Measurement: sq.m.

Output per hour: 62.50 sq.m./hr.

Quantity: 71,842.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	47.89	611.92	29,307.70
b.	Unskilled Laborer	6	47.89	342.24	98,348.82
					-
					-
					-
					-
					-
					-
					-
	Sub-total for A			P	127,656.53
Name and Capacity		**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Hydroseeding Machine	3	47.89	7,616.00	1,094,297.34
	b. Water truck	3	47.89	19,600.00	2,816,206.40
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for B			P	3,910,503.74
C.	Total (A+B)				4,038,160.27
D.	Output/day 1,500.00	sq.m./day			
Name and Specifications		**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	Grass Cover (Price includes grass seeds, mulch, cocopeat & binding agent for hydroseeding)	75,435.00	sq.m.	31.00	2,338,485.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
					-
	Sub-total for E			P	2,338,485.00
F.	Direct Cost (C + E)				6,376,645.27
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		510,131.62
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		510,131.62
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		369,845.43
L.	Total Unit Cost				108.11

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DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: PAVING OF UNPAVED ROADS ZAMBOANGA WEST COASTAL ROAD LIMPAPA - SIBUCO SECTION, ZAMBOANGA DEL NORTE

Item No./Description: A.1.1(3) Construction of Field Office for the Engineer (7.0m. X 9.0 m.)

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	15.00	611.92	9,178.80
	b. Masons	4	15.00	443.20	26,592.00
	c. Carpenters	4	15.00	443.20	26,592.00
	d. Laborers	8	15.00	342.24	41,068.80
					-
	Sub-total for A			P	103,431.60
	Name and Capacity	**No. of Equipment**	**No. of Days**	**Daily Rate**	**Amount**
B.	Equipment, (2009 ACEL Rates)				
	a. Bagger Mixer	1	15.00	1,376.00	20,640.00
	b. Water Truck	1	1.00	19,600.00	19,600.00
	c. Minor Tools, 10% of Labor				10,343.16
	Sub-total for B			P	50,583.16
C.	Total (A+B)				154,014.76
D.	Output/day				
	Name and Specifications	**Quantity**	**Unit**	**Unit Cost**	**Amount**
E.	Materials				
	Gravel Bedding	0.00	cu.m.	956.50	-
	Selected Fill	0.00	cu. m.	456.50	-
	Soil Poisoning	0.00	lit.	1,900.00	-
	Portland Cement	220.00	bag	297.33	65,413.37
	Crushed gravel	15.00	cu.m.	956.50	14,347.50
	Washed Sand	25.00	cu.m.	956.50	23,912.50
	Deformed Bars, Grade 60	800.00	kg.	42.00	33,600.00
	No. #16 G.I. Tie Wire	35.00	kg.	70.00	2,450.00
	Coco Lumber	250.00	bd.ft.	15.00	3,750.00
	Ordinary Plywood, 1/4" x 4' x8"	0.00	pcs.	577.00	-
	CWN, Assorted	20.00	kg.	110.00	2,200.00
	CHB 6" thick	700.00	pc.	25.00	17,500.00
	10mm dia. X 6m RSB	150.00	kg.	40.00	6,000.00
	D-1,Hollow Core Flush Type	1.00	set	1,495.20	1,495.20
	swing door,complete w/				-
	accessories				-
	W-1,Ja;lousie window, 1.4mx 1.2m.	0.00	set	1,176.00	-
	W-2, Jalousie window, 2.8m x 1.2m	0.00	set	2,352.00	-
	65 x 65 x 6mm Angle Bar	370.00	kg.	48.00	17,760.00
	50 x 50 x 6mm Angle Bar	160.00	kg.	48.00	7,680.00
	50 x 50 x 4mm Angle Bar	110.00	kg.	48.00	5,280.00
	Purlins C-150x50x3mm	35.00	kg.	48.00	1,680.00
	16mm dia. Cross Bracing	65.00	kg.	50.00	3,250.00
	16mm dia. Turn Buckle	30.00	pc.	230.00	6,900.00
	12mm thk. Base plate	45.00	kg.	48.00	2,160.00
	10mmthk batten plate	30.00	kg.	48.00	1,440.00
	Sub-total for E			P	216,818.57
	Total Cost For Materials				309,800.17
F.	Direct Cost (C + E)				463,814.93
G.	Overhead, Contingencies and Miscellaneous		8% per D.O.197 s 2016		37,105.19
H.	Contractor's Profit(CP)		8% per D.O.197 s 2016		37,105.19
I.	Value Added Tax (VAT)		5% per D.O.197 s 2016		26,901.27
L.	Total Unit Cost				564,926.58

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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/m3*
Unit weight of Coarse Aggregates	:	*1,534.00*	*kg/m3*
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

Loaded running $= \dfrac{5.00 \times 60}{30.00} = 10.00$ mins.

Unloaded running $= \dfrac{5.00 \times 60}{40.00} = 7.50$ mins.

Loading and Unloading : 5.00 mins.

Capacity of Dumptruck : 10.00 cu.m.

Total Cycle time : 22.50 mins.

No. of trips for Dumptruck per day $= \dfrac{8 \times 60.00}{22.50} = 21.33$ say 21.33 trips

Dumptruck daily output = 10 x 21.33 = 213.33 cu.m.

Using (4) Dumptrucks = 4 x 213.33 = 853.33 cu.m.

1. No. of days for Dumptrucks $= \dfrac{1{,}000.00}{853.33} = 1.17$ say 1.17 days

EQUIPMENT USED : (2009 ACEL RATES)

4	- Unit Dumptruck	@ P	11,360.00 /day	x	1.17	days	= P	53,250.00
					Sub - Total		**P**	**53,250.00**

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Estimated Quantity		1,000.00 cu.m.
Unit Cost	***P***	***10.65 / cu. m./km. (Unit Cost, Hauling per cu.m.per km.)***
Grand Total	P	53,250.00
Equipment	P	53,250.00
Labor	P	
Materials	P	

ZAMBOANGA DEL NORTE 2ND DEO

	Ave. Hauling Distance		Unit Cost per cu.m./km.		Hauling Cost per cu.m.		Unit Pirce		Unit Cost per cu.m.
Cost of Fine Aggregates:	10.00	x	10.65	=	106.50	+	850.00	=	**956.50**
Cost of Coarse Aggregates:	10.00	x	10.65	=	106.50	+	850.00	=	**956.50**
Cost of Item 200 Materials:	10.00	x	10.65	=	106.50	+	618.00	=	**724.50**
Cost of Item 201 Materials:	10.00	x	10.65	=	106.50	+	663.00	=	**769.50**
Cost of Item 300 Materials:	10.00	x	10.65	=	106.50	+	755.00	=	**861.50**
Cost of Boulders:	10.00	x	10.65	=	106.50	+	1,100.00	=	**1,206.50**
Cost of Embankmen, Common Borrow:	10.00	x	10.65	=	106.50	+	270.00	=	**376.50**
Cost of Embankmen, Selected Borrow:	10.00	x	10.65	=	106.50	+	350.00	=	**456.50**

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement, 0.28 m. thick	87,413.00
Reinforced Concrete Culvert Pipe, 910 mm. (36") diameter	626.00
Structural Concrete, Class"A"	10,930.00
Reinf. Conc. Culvert Pipe, 910mm dia.	626.00
Grouted Riprap, Class "A"	270.00
Stone Masonry	1,892.00
Construction of Field Office for the Engineer (7.0m. X 9.0 m.)	220.00
RCCP, 610 mm dia.	14.00
Catch Basin	4.00
Concrete Cover	1.00
Concrete Curb & Gutter	157.38
Sidewalk	231.80
Informatory Signs	1.00
T O T A L	**102,386.18**

Quantity = **102,386.18** Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga del Norte 2nd DEO	105.00
PROJECT SITE	

*Average hauling distance from Source to assumed Stockpiling area :

say 105.00 km.

Delivery Charge = P 0.120 x 105.00

= P 12.60 / bag

*Delivery Truck : 102,386.18 bags., (hauling works)

20,000.00 kgs., (capacity per haul)

or 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 $= \dfrac{105.00 \times 60}{30.00} =$ 210.00 mins.

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Unloaded running	=	$\frac{105.00 \times 60}{40.00}$	=	157.50 mins.
Loading and Unloading	:	45.00 mins.		
Capacity of Dumptruck	:	8.00 cu.m.		
	:	500.00 bags		
Total Cycle time	:	412.50 mins.		
No. of trips for Dumptruck per day	=	$\frac{8.0 \times 60.00}{412.50}$	=	1.16 say 1.16 trip
Dumptruck daily output	=	500 x 1.16	=	581.82 cu.m.
Using (4) Dumptrucks	=	4 x 581.82	=	2,327.27 cu.m.

1. No. of days for Delivery Truck	=	$\frac{102,386.18}{2,327.27}$ = 43.99	say	43.99	days
2. No. of days for Labor, for unloading	=	complimentary to D. Truck days	=	43.99	days

DELIVERY COST :

102,386.18 - Bags, Portland Cement	@ P	12.60	/ bag	= P	1,290,065.87
			Sub - Total	**P**	**1,290,065.87**

LABOR :

1	- Foreman	@ P	611.92 /day	x	43.99	days	= P	26,920.85
10	- Laborers, unloading	@ P	342.24 /day	x	43.99	days	= P	150,565.28
					Sub - Total		**P**	**177,486.12**

MATERIALS :

102,386.18 - Bags, Portland Cement	@ P	283.00	/ bag	= P	28,975,288.94
(Pick-Up Price)			**Sub - Total**	**P**	**28,975,288.94**

Estimated Quantity		102,386.18 Bags
Unit Cost	P	297.33 / Bag, say P 297.33 / Bag
Grand Total	P	30,442,840.93
Delivery Cost	P	1,290,065.87
Labor	P	177,486.12
Materials	P	28,975,288.94

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