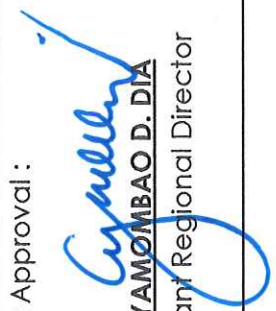


PROGRAM OF WORK (For all types of Project)							
NAME OF PROJECT : National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagandang-Menz-Lanote, Isabela City, Basilan		Appropriation : Source of Funds : CY-2018 GAA	P 250,000,000.00				
LOCATION: Isabela City, Basilan		Issued Obligated Authority :					
PROJECT CATEGORY : NATIONAL ROAD		Released :					
		Cal. Days to Complete :	324 Calendar Days				
		Desirable Starting Date :	upon approval				
		Mode of Implementation :	by contract				
PROJECT DESCRIPTION : Scope of Work : Construction of Roads Road Width : 6.70 m. Roadbed Width : 12.00 m. Subbase Course : 0.30 m. thk. Surface Course : 0.15 m. thk.		Station Limits: Sta. 0+000.00 - Sta. 3+000.00 Sta. 3+660.00 - Sta. 7+400.00 Net Length: 13.480 Lane Km. Net Length: 6,740.00 In.m. 6.74 Km.					
MINIMUM EQUIPMENT REQUIREMENT :							
TECHNICAL PERSONNEL REQUIRED :							
Description	No.	Description	No.				
Dump Truck	12	Water Pump	1				
Transit Mixer	4	Concrete Screeder	1				
Bulldozer	2	Concrete Vibrator	2				
Backhoe	3	Concrete Cutter	2				
Road Grader	2	Bar Cutter	1				
Road Roller	2	Bar Bender	1				
Payloader	4	One Bagger Mixer	2				
Water Truck	2	Batching Plant	1				
Water Tank	2	Plate Compactor	1				
Kneading Machine	1	Cargo Truck	1				
Applicator Machine	1						
ESTIMATED COST OF PROPOSED WORK							
ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	TOTAL	DIRECT COST	UNIT COST
PART A - FACILITIES FOR THE ENGINEER							
A.1.1(3)	Bunkhouse, 7.00 m. x 9.00 m.	0.23	L.S.	1.00	449,265.55	449,265.55	
A.1.1(11)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	0.07	L.S.	1.00	139,889.41	139,889.41	
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	0.30	month	10.80	604,431.68	55,965.90	
PART B - OTHER GENERAL REQUIREMENTS							
B.4(1)	Construction Survey & Staking	0.12	km.	6.74	230,230.33	34,158.80	
B.5	Project Billboard/Signboard	0.01	each	2.00	12,851.20	6,425.60	
B.7	Occupation Safety and Health Program	0.51	month	10.80	1,007,135.04	93,253.24	
B.9	Mobilization & Demobilization	0.87	L.S.	1.00	1,732,450.00	1,732,450.00	
PART C - EARTHWORKS							
100(1)	Clearing & Grubbing	0.59	ha.	7.17	1,163,554.77	162,281.00	
101(3)b2	Removal of Existing PCCP	0.60	sq.m.	10,323.50	1,192,197.78	115.48	
102(2)	Surplus Common Excavation	8.81	cu.m.	123,143.50	17,463,913.57	141.82	
103(3)	Foundation Fill	0.04	cu.m.	22.00	69,462.52	3,157.39	
103(6)a	Pipe Culvert and Drain Excavation	0.01	cu.m.	114.00	26,233.18	230.12	
104(1)a1	Embankment from Roadway Excavation	2.17	cu.m.	18,957.00	4,309,127.61	227.31	
105(1)a	Subgrade Preparation	0.47	sq.m.	58,382.00	932,856.79	15.98	

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART D - SUBBASE AND BASE COURSE						
200(1)	Aggregate Subbase Course	28.71	cu.m.	27,123.00	56,917,100.16	2,098.48
PART E - SURFACE COURSES						
300(1)	Gravel Surface Course	2.28	cu.m.	2,280.00	4,522,336.68	1,983.48
311(1)e1	Portland Cement Concrete Pavement, 280 mm. thk.	47.72	sq.m.	47,314.00	94,596,364.50	1,999.33
311(1)a	Portland Cement Concrete Pavement, 150 mm. thk.	3.90	sq.m.	7,041.00	7,733,156.37	1,098.30
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES						
404(1b)	Reinforcing Steel Bar, Grade 60	0.38	kg.	15,277.50	751,296.10	49.18
405(1a3)	Structural Concrete, Class "A "	0.78	cu.m.	181.00	1,551,327.15	8,570.87
500(1)a3	R.C. Culvert Pipe, 910 mm. dia.	0.37	ln.m.	160.00	726,711.82	4,541.95
505(5)	Grouted Riprap, Class 'A'	0.08	cu.m.	38.50	152,132.57	3,951.50
506(1)	Stone Masonry	0.26	cu.m.	105.00	506,965.96	4,828.25
PART H - MISCELLANEOUS STRUCTURES						
612(1)	Reflectonized Thermoplastic Pavement Markings (White)	0.60	sq.m.	1,621.00	1,190,962.37	734.71
612(2)	Reflectonized Thermoplastic Pavement Markings (Yellow)	0.12	sq.m.	333.00	244,657.91	734.71
TOTAL				100.00	P	198,226,611.03

NAME OF PROJECT : National Road & Bridges-National Roads-
Construction/Repair/Rehabilitation/Improvement of Various Infrastructure
Including Local Projects. Construction of Road including Right-of-Way for the
Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City,
Basilan
Isabela City

BREAKDOWN OF ESTIMATED EXPENDITURES		% OF TOTAL	AMOUNT
I. ESTIMATED COST			
A. DIRECT COST			
A.1. Labor	1.16		2,898,085.81
A.2. Equipment Expenses	16.07		40,183,722.76
A.3. Materials	62.06		155,144,802.46
SUB-TOTAL (DIRECT COST)	79.29	P	198,226,611.03
B. INDIRECT COST (Per D.O. # 197, s. 2016)			
B.1. Overhead, Contingency & Misc. (10 % Max. of D.C.)	6.23		15,579,416.39
B.2. Profit (8 % Max. of D.C.)	6.27		15,671,178.35
C. VAT (5% of D.C. and I.C. Per D.O. # 197, s. 2016)	4.59		11,473,860.29
SUBTOTAL (CONTRACT COST)	96.38	P	240,951,066.06
II. ESTIMATED GOVERNMENT EXPENDITURES			
1. Engineering and Administrative Overhead (3.5%)	3.50		8,750,000.00
2. Detailed Engineering (1%)	0.12		298,933.94
3. Reserved for the Payment of RROW	0.00		
4. Physical Reserved			
TOTAL ESTIMATED PROJECT COST	100.00	P	250,000,000.00

Prepared :	Checked :
 SHERMINEE M. BETONGGA Engineer II	 JERALD R. BARRERA Engineer II
Submitted :	Recommending Approval :
 LEONCIO B. SOLAMILLO Chief, Construction Division	 CAYAMOMBAO D. DIA Assistant Regional Director
Approved :	
 JORGE U. SEBASTIAN Regional Director	

APPROVED BUDGET FOR THE CONTRACT

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagandang-Menzil-Lanote, Isabela City, Basilan

Stations : Sta. 0+000.00 - Sta. 3+400.00 Sta. 3+660.00 - Sta. 7+400.00

Length : 6,740.00 In.m.

Contract Duration : 324 CD

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	ESTIMATED DIRECT COST	OCM	PROFIT	%	VALUE	TOTAL MARK-UPS	VAT	TOTAL INDIRECT COST	TOTAL COST	UNIT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(5) x (8)	5%[(5) + (9)]	(10)	(11)	(12) / (3)
PART A - FACILITIES FOR THE ENGINEER													
A.1.(3)	Bunkhouse, 7.00 m. x 9.00 m.	1.00	L.S.	449,265.55	8.00	8.00	16.00	71,882.49	26,057.40	97,939.89	547,205.44	547,205.44	
A.1.(1)	Appliances for the Field Office for the Field Engineer	1.00	L.S.	139,889.41	-	8.00	8.00	11,191.15	7,554.03	18,745.18	158,634.59	158,634.59	
A.1.(2)(5)	Vehicle for the Engineer	10.80	month	604,431.68	-	-	-	-	30,221.58	30,221.58	634,653.26	58,764.19	
TOTAL OF PART A				1,193,586.64				83,073.64	63,833.01	146,906.66	1,340,493.30		
PART B - OTHER GENERAL REQUIREMENTS													
B.4(1)	Construction Survey & Staking	6.74	km.	230,230.33	8.00	8.00	16.00	36,836.85	13,353.36	50,190.21	280,420.55	41,605.42	
B.5	Project Billboard/Signboard	2.00	each	12,851.20	8.00	8.00	16.00	2,056.19	745.37	2,801.56	15,652.76	7,826.38	
B.7	Occupation Safety and Health Program	10.80	month	1,007,135.04	-	8.00	8.00	80,570.80	54,385.29	134,956.10	1,142,091.14	105,749.18	
B.9	Mobilization & Demobilization	1.00	L.S.	1,732,450.00	-	-	-	-	86,622.50	86,622.50	1,819,072.50	1,819,072.50	
TOTAL OF PART B				2,982,666.57				119,463.85	155,106.52	274,570.37	3,257,236.94		
PART C - EARTHWORKS													
100(1)	Cleaning & Grubbing	7.17	ha.	1,163,554.77	8.00	8.00	16.00	186,168.76	67,486.18	253,654.94	1,417,209.71	197,658.26	
101(3)b2	Removal of Existing PCP	10,223.50	sq.m.	1,192,197.78	8.00	8.00	16.00	190,751.65	69,147.47	259,899.12	1,452,096.90	140.66	
102(2)	Surplus Common Excavation	123,143.50	cum.	17,463,913.67	8.00	8.00	16.00	2,794,226.17	1,012,906.97	3,807,133.16	21,271,046.73	172.73	
103(3)	Foundation Fill	22.00	cum.	69,462.52	8.00	8.00	16.00	11,114.00	4,028.83	15,142.83	84,605.35	3,845.70	
103(6)a	Pipe Culvert and Drain Excavation	114.00	cum.	26,233.18	8.00	8.00	16.00	4,197.31	1,521.52	5,718.83	31,952.02	280.28	
104(1)a1	Embankment from Roadway Excavation	18,957.00	cum.	4,309,127.61	8.00	8.00	16.00	689,460.42	249,929.40	939,389.82	5,248,517.43	276.86	
105(1)a	Subgrade Preparation	58,382.00	sq.m.	932,856.79	8.00	8.00	16.00	149,257.09	54,105.69	203,362.78	1,136,219.57	19.46	
TOTAL OF PART C				25,157,346.23				4,025,175.40	1,459,126.08	5,484,301.48	30,641,647.71		
PART D - SUBBASE AND BASE COURSE													
200(1)	Aggregate Subbase Course	27,123.00	cum.	56,917,100.16	8.00	8.00	16.00	9,106,736.03	3,301,191.81	12,407,927.84	69,325,028.00	2,555.95	
TOTAL OF PART D				56,917,100.16				9,106,736.03	3,301,191.81	12,407,927.84	69,325,028.00		
PART E - SURFACE COURSES													
300(1)	Gravel Surface Course	2,280.00	cum.	4,522,336.68	8.00	8.00	16.00	723,573.87	262,295.53	985,869.40	5,508,206.08	2,415.88	
311(1)e1	Portland Cement Concrete Pavement, 280 mm. thk.	47,314.00	sq.m.	94,596,364.50	8.00	8.00	16.00	15,135,418.32	5,486,589.14	20,622,007.46	115,218,371.96	2,435.19	
311(1)a	Portland Cement Concrete Pavement, 150 mm. thk.	7,041.00	sq.m.	7,733,156.37	8.00	8.00	16.00	1,237,305.02	448,523.07	1,685,828.09	9,418,984.46	1,337.73	
TOTAL OF PART E				106,851,857.55				17,096,297.21	6,197,407.74	23,293,704.95	130,145,562.50		
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES													
404(1b)	Reinforcing Steel Bar, Grade 60	15,277.50	kg.	751,296.10	8.00	8.00	16.00	120,207.38	43,575.17	163,782.55	915,078.65	59.90	
405(1)a3)	Structural Concrete, Class "A"	181.00	cum.	1,551,327.15	8.00	8.00	16.00	248,212.34	89,976.97	338,189.32	1,889,516.46	10,439.32	
500(1)a3	R.C. Culvert Pipe, 910 mm. dia.	160.00	ln.m.	726,711.82	8.00	8.00	16.00	116,273.89	42,149.29	158,423.18	885,135.00	5,532.09	
505(5)	Grouted Riprap, Class "A"	38.50	cum.	152,132.57	8.00	8.00	16.00	24,341.21	8,823.69	33,164.90	185,297.47	4,812.92	
506(1)	Stone Masonry	105.00	cum.	506,965.96	8.00	8.00	16.00	81,114.55	29,404.03	110,518.58	617,484.54	5,880.81	

LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:

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

[illegible]

PROJECT : National Road & Bridges-Nation, Roads-Construction/Repair/Rehabilitation/Improvement, Road along Sumagandang-Menzi-Lanote, Isabela City, Basilan
LOCATION : Isabela City
LIMITS : Sta. 0+000.00 - Sta. 3+000.00
Sta. 3+660.00 - Sta. 7+400.00
net length : 6,740.00 In.m.

SUMMARY OF DETAILED ESTIMATES

ITEM NO.	DESCRIPTION	QTY.	UNIT	LABOR	EQUIPMENT	MATERIALS	OCM	PROFIT	VAT	TOTAL
PART A - FACILITIES FOR THE ENGINEER										
A.1.1(3)	Bunkhouse, 7.00 m. x 9.00 m.	1.00	L.S.	42,596.48	4,259.65	402,409.43	35,941.24	35,941.24	26,057.40	547,205.44
A.1.1(1)	Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer	1.00	L.S.	-	-	139,889.41	-	11,191.15	7,554.03	158,634.59
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer	10.80	month	136,831.68	-	467,600.00	-	-	30,221.58	634,653.26
TOTAL OF PART A										
PART B - OTHER GENERAL REQUIREMENTS										
B.4(1)	Construction Survey & Staking	6.74	km.	175,845.76	34,434.58	19,950.00	18,418.43	18,418.43	13,353.36	280,420.55
B.5	Project Billboard/Signboard	2.00	each	3,479.20	-	9,372.00	1,028.10	1,028.10	745.37	15,652.76
B.7	Occupation Safety and Health Program	10.80	month	935,375.04	45,000.00	26,760.00	80,570.80	54,385.29	1,142,091.14	1,819,072.50
B.9	Mobilization & Demobilization	1.00	L.S.	-	1,732,450.00	-	-	-	86,622.50	1,819,072.50
TOTAL OF PART B										
PART C - EARTHWORKS										
100(1)	Clearing & Grubbing	7.17	ha.	23,237.97	1,140,316.80	-	93,084.38	93,084.38	67,486.18	1,417,209.71
101(3)b2	Removal of Existing PCCP	10,323.50	sq.m.	41,823.08	1,150,374.70	-	95,375.82	95,375.82	69,147.47	1,452,096.90
102(2)	Surplus Common Excavation	123,143.50	cu.m.	254,096.35	17,209,817.22	-	1,397,113.09	1,397,113.09	1,012,906.99	21,271,046.73
103(3)	Foundation Fill	22.00	cu.m.	4,357.94	3,031.79	62,072.79	5,557.00	5,557.00	4,028.83	84,605.35
103(6)a	Pipe Culvert and Drain Excavation	114.00	cu.m.	1,167.53	25,065.65	-	2,098.65	2,098.65	1,521.52	31,952.02
104(1)a1	Embankment from Roadway Excavation	18,957.00	cu.m.	112,434.54	4,196,693.08	-	344,730.21	344,730.21	249,929.40	5,248,517.43
105(1)a	Subgrade Preparation	58,382.00	sq.m.	31,536.01	901,320.78	-	74,628.54	74,628.54	54,105.69	1,136,219.57
TOTAL OF PART C										
PART D - SUBBASE AND BASE COURSE										
200(1)	Aggregate Subbase Course	27,123.00	cu.m.	87,905.64	2,512,403.49	54,316,791.03	4,553,368.01	4,553,368.01	3,301,191.81	69,325,028.00
TOTAL OF PART D										
PART E - SURFACE COURSES										
300(1)	Gravel Surface Course	2,280.00	cu.m.	7,389.48	211,196.40	4,303,750.80	361,786.93	361,786.93	262,295.53	5,508,206.08
311(1)e1	Portland Cement Concrete Pavement, 280 mm. thk.	47,314.00	sq.m.	667,703.40	9,904,817.67	84,023,843.43	7,567,709.16	7,567,709.16	5,486,589.14	115,218,371.96
311(1)a	Portland Cement Concrete Pavement, 150 mm. thk.	7,041.00	sq.m.	53,232.27	789,655.89	6,890,268.21	618,652.51	618,652.51	448,523.07	9,418,984.46
TOTAL OF PART E										
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES										
404(1b)	Reinforcing Steel Bar, Grade 60	15,277.50	kg.	44,943.86	39,672.70	666,679.55	60,103.69	60,103.69	43,575.17	915,078.65
405(1a3)	Structural Concrete, Class "A"	181.00	cu.m.	155,681.98	73,493.56	1,322,161.61	124,106.17	124,106.17	89,976.97	1,889,516.46
500(1)a3	R.C. Culvert Pipe, 910 mm. dia.	160.00	ln.m.	32,686.99	80,292.70	613,732.13	58,136.95	58,136.95	42,149.29	885,135.00
505(5)	GROUTED RIPRAP, Class 'A'	38.50	cu.m.	16,309.52	9,886.08	125,936.97	12,170.61	12,170.61	8,823.69	185,297.47
506(1)	Stone Masonry	105.00	cu.m.	34,750.41	32,888.17	439,327.39	40,557.28	40,557.28	29,404.03	617,484.54
TOTAL OF PART G										
PART H - MISCELLANEOUS STRUCTURES										
612(1)	ReflectORIZED Thermoplastic Pavement Markings (White)	1,621.00	sq.m.	28,787.01	71,884.67	1,090,290.68	95,276.99	95,276.99	69,075.82	1,450,592.16
612(2)	ReflectORIZED Thermoplastic Pavement Markings (Yellow)	333.00	sq.m.	5,913.68	14,767.18	223,977.05	19,572.63	19,572.63	14,190.16	297,993.33
TOTAL OF PART H										
TOTAL										

Name of Project : National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National
Station Limits : Sta. 0+000.00 - Sta. 3+000.00 : Sta. 3+650.00 - Sta. 7+400.00
Net Length : 6,740.00 m.

Item No.	Description	Quantity	Unit	DURATION	# OF DAYS
PART A - FACILITIES FOR THE ENGINEER					
A.1.1(3)	Bunkhouse, 7.00 m. x 9.00 m.	1.00	L.S.	8.00	
A.1.1(11)	Provision of Furniture/Fixtures, Equipment and Appliances for	1.00	L.S.	324	
A.1.2(5)	Operation and Maintenance of 4x4 Pick Up Type Service Vehicle	10.80	month	324	
PART B - OTHER GENERAL REQUIREMENTS					
B.4(1)	Construction Survey & Staking	6.74	km.	63.19	
B.5	Project Billboard/Signboard	2.00	each	2.00	
B.7	Occupation Safety and Health Program	10.80	month	324	
B.9	Mobilization & Demobilization	1.00	L.S.	8.00	
PART C - EARTHWORKS					
100(1)	Clearing & Grubbing	7.17	ha.	17.93	
101(3)b2	Removal of Existing PCCP	10,323.50	sq.m.	32.26	
102(2)	Surplus Common Excavation	123,143.50	cum.	128.27	
103(3)	Foundation Fill	22.00	cum.	2.20	
103(6)a	Pipe Culvert and Drain Excavation	114.00	cum.	0.71	
104(1)a1	Embankment from Roadway Excavation	18,957.00	cum.	47.39	
105(1)a	Subgrade Preparation	58,382.00	sq.m.	24.33	
PART D - SUBBASE AND BASE COURSE					
200(1)	Aggregate Subbase Course	27,123.00	cum.	67.81	
PART E - SURFACE COURSES					
300(1)	Gravel Surface Course	2,280.00	cum.	5.70	
311(1)e1	Portland Cement Concrete Pavement, 280 mm. thk.	47,314.00	sq.m.	102.86	
311(1)a	Portland Cement Concrete Pavement, 150 mm. thk.	7,041.00	sq.m.	8.20	
PART G - DRAINAGE AND SLOPE PROTECTION STRUCTURES					
404(1)b	Reinforcing Steel Bar, Grade 60	15,277.50	kg.	10.61	
405(1a3)	Structural Concrete, Class "A"	181.00	cum.	16.16	
500(1)a3	R.C. Culvert Pipe, 910 mm. dia.	160.00	ln.m.	11.40	
505(5)	Grouted Riprap, Class "A"	38.50	cum.	3.85	
506(1)	Stone Masonry	105.00	cum.	8.20	
PART H - MISCELLANEOUS STRUCTURES					
612(1)	Reflectized Thermoplastic Pavement Markings (White)	1,621.00	sq.m.	8.11	
612(2)	Reflectized Thermoplastic Pavement Markings (Yellow)	333.00	sq.m.	1.67	

Submitted by:

Prepared by:

SHERMIEEN M. BERTONGGA
Engineer II

LEONCIO B. SOLAMILLO
Chief, Construction Division

JOSUE B. SEBASTIAN, JR., CESO III
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

101 (3)b2 Removal of Existing PCCP

Unit of Measurement:

sq.m.

Output per hour:

40.00

Quantity:

10,323.50

For RCPC Installation (R&R)

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	32.26	611.92	19,741.11
	b. Unskilled Labor	2	32.26	342.24	22,081.97
Sub-total for A					
				P	41,823.08
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe w/ Pavement Breaker (0.80 cu.m.)	1	32.26	15,984.80	515,684.63
	b. Payloader (1.50 cu.m.), LX80-2C	1	32.26	13,864.00	447,265.64
	c. Dump Truck (12 cu.yd.)	1	16.13	11,360.00	183,242.13
	Minor Tools 10% of Labor				4,182.31
	Sub-total for B			P	1,150,374.70
C.	Total (A+B)				1,192,197.78
D.	Output/day	320.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				1,192,197.78
G.	Overhead, Contingencies and Miscellaneous	8% per D.O. 197, s. 2016			95,375.82
H.	Contractor's Profit(CP)	8% per D.O. 197, s. 2016			95,375.82
I.	Value Added Tax (VAT)	5% per D.O. 197, s. 2016			69,147.47
J.	Total Unit Cost				140.66

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan 100(1) Clearing & Grubbing

Item No./Description:

ha.

Unit of Measurement:

0.05

Output per hour:

7.17

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	17.93	611.92	10,968.67
	c. Laborer	2	17.93	342.24	12,269.30
Sub-total for A					P 23,237.97
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck	2	17.93	11,360.00	407,256.00
	b. Payloader	1	17.93	13,864.00	248,512.20
	c. Bulldozer	1	17.93	27,032.00	484,548.60
Sub-total for B					P 1,140,316.80
C.	Total (A+B)				1,163,554.77
D.	Output/day	0.40	In.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					P -
F.	Direct Cost (C + E)				1,163,554.77
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		93,084.38
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		93,084.38
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		67,486.18
J.	Total Unit Cost				197,658.26

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan 102(2) Surplus Common Excavation

Item No./Description:

cu.m.

Unit of Measurement:

Output per hour:

Quantity:

60.00

123,143.50

*For Disposal
Use 2 Gang*

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	128.27	611.92	78,493.72
	b. Unskilled Labor	4	128.27	342.24	175,602.63
Sub-total for A					254,096.35
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Bulldozer, D6H Series II PSDS/DD	2	128.27	27,032.00	6,935,031.44
	b. Payloader (1.50 cu.m.)	2	128.27	13,864.00	3,556,794.76
	c. Payloader (1.50 cu.m.) - at disposal area	2	32.07	13,864.00	889,198.69
	d. Dump Truck (12 cu.yd.)	4	128.27	11,360.00	5,828,792.33
Sub-total for B					17,209,817.22
C.	Total (A+B)			P	17,463,913.57
D.	Output/day	960.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					-
F.	Direct Cost (C + E)			P	17,463,913.57
G.	Overhead, Contingencies and Miscellaneous	8% per D.O. 197, s. 2016			1,397,113.09
H.	Contractor's Profit(CP)	8% per D.O. 197, s. 2016			1,397,113.09
I.	Value Added Tax (VAT)	5% per D.O. 197, s. 2016			1,012,906.99
J.	Total Unit Cost				172.73

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan 103(3) Foundation Fill
cu.m.

Item No./Description:

Unit of Measurement:

Output per hour:

Quantity:

1.25
22.00

For RCPC Beddings

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	2.20	611.92	1,346.22
	b. Unskilled Labor	4	2.20	342.24	3,011.71
Sub-total for A					P 4,357.94
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Plate Compactor	1	2.20	984.00	2,164.80
	b. Water Truck/Pump (16000 L)	1	0.02	19,600.00	431.20
	Minor Tools 10% of Labor				435.79
Sub-total for B					P 3,031.79
C.	Total (A+B)				7,389.73
D.	Output/day	10.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Filling Materials (Granular Materials for Bedding)	25.30	cu.m.	2,453.47	62,072.79
Sub-total for E					P 62,072.79
F.	Direct Cost (C + E)				69,462.52
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		5,557.00
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		5,557.00
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		4,028.83
J.	Total Unit Cost				3,845.70

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

103(6)a Pipe Culvert and Drain Excavation

Unit of Measurement:

cu.m.

Output per hour:

20.00

Quantity:

114.00

For RCPC Excavation

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	0.71	611.92	435.99
	b. Unskilled Labor	3	0.71	342.24	731.54
Sub-total for A					P 1,167.53
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Dump Truck (12 cu.yd.)	2	0.71	11,360.00	16,188.00
	b. Backhoe (0.80 cu.m.)	1	0.71	12,296.00	8,760.90
	Minor Tools 10% of Labor				116.75
Sub-total for B					P 25,065.65
C.	Total (A+B)				26,233.18
D.	Output/day	160.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					P -
F.	Direct Cost (C + E)				26,233.18
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		2,098.65
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		2,098.65
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		1,521.52
J.	Total Unit Cost				280.28

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

104(1) a1 Embankment from Roadway Excavation

Unit of Measurement:

cu.m.

Output per hour:

50.00

Quantity:

18,957.00

Compacted Volume (from Excavation)

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Excavation Work:				
	a. Const. Foreman	1	39.34	611.92	24,070.35
	c. Unskilled Labor	2	39.34	342.24	26,924.55
	Spreading and Compaction				
	a. Const. Foreman	1	47.39	611.92	29,000.42
	c. Unskilled Labor	2	47.39	342.24	32,439.22
Sub-total for A					P 112,434.54
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	For Excavation Work				
	a. Bulldozer, D6H Series II PSDS/DD	1	39.34	27,032.00	1,063,324.67
	b. Backhoe (0.80 cu.m.)	1	39.34	12,296.00	483,672.69
	c. Dump Truck (12 cu.yd.)	2	39.34	11,360.00	893,708.81
	Spreading and Compaction				
	a. Motorized Road Grader (140 hp), G170A	1	47.39	17,384.00	823,871.22
	b. Vibratory Roller (10 mt), SD100C	1	47.39	14,768.00	699,892.44
	c. Water Truck/Pump (16000 L)	1	11.85	19,600.00	232,223.25
Sub-total for B					P 4,196,693.08
C.	Total (A+B)				4,309,127.61
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	Sub-total for E			P	-
F.	Direct Cost (C + E)				4,309,127.61
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		344,730.21
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		344,730.21
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		249,929.40
J.	Total Unit Cost				27686

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagandang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

105(1)a Subgrade Preparation

Unit of Measurement:

sq.m.

Output per hour:

300.00

Quantity:

58,382.00

Variable Width

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	24.33	611.92	14,885.46
	b. Unskilled Labor	2	24.33	342.24	16,650.55
Sub-total for A					
				P	31,536.01
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	24.33	17,384.00	422,880.29
	b. Vibratory Roller (10 mt), SD100DC	1	24.33	14,768.00	359,243.91
	c. Water Truck/Pump (16000 L)	1	6.08	19,600.00	119,196.58
Sub-total for B					
				P	901,320.78
C.	Total (A+B)				932,856.79
D.	Output/day	2,400.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					
				P	-
F.	Direct Cost (C + E)				932,856.79
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		74,628.54
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		74,628.54
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		54,105.69
J.	Total Unit Cost				19.46

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

200(1) Aggregate Subbase Course

Unit of Measurement:

cu.m.

Output per hour:

50.00

Quantity:

27,123.00

0.30 m. thick. (min.), Compacted Volume

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	67.81	611.92	41,492.77
	b. Unskilled Labor	2	67.81	342.24	46,412.88
Sub-total for A					P 87,905.64
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	67.81	17,384.00	1,178,765.58
	b. Vibratory Roller (10 mt), SD100DC	1	67.81	14,768.00	1,001,381.16
	c. Water Truck/Pump (16000 L)	1	16.95	19,600.00	332,256.75
Sub-total for B					P 2,512,403.49
C.	Total (A+B)				2,600,309.13
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Aggregate Subbase Course (w/ 15% Shrinkage Factor)	31,191.45	cu.m.	1,741.40	54,316,791.03
Sub-total for E					P 54,316,791.03
F.	Direct Cost (C + E)				56,917,100.16
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		4,553,368.01
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		4,553,368.01
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		3,301,191.81
J.	Total Unit Cost				2,555.95

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

300(1) Gravel Surface Course

Unit of Measurement:

cu.m.

Output per hour:

50.00

Quantity:

2,280.00

0.15 m. *thk.* For shouldering. Compacted
Volume

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	5.70	611.92	3,487.94
	b. Unskilled Labor	2	5.70	342.24	3,901.54
Sub-total for A					
				P	7,389.48
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Motorized Road Grader (140 hp), G710A	1	5.70	17,384.00	99,088.80
	b. Vibratory Roller (10 mt), SD100DC	1	5.70	14,768.00	84,177.60
	c. Water Truck/Pump (16000 L)	1	1.43	19,600.00	27,930.00
Sub-total for B					
				P	211,196.40
C.	Total (A+B)				218,585.88
D.	Output/day	400.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Uncrushed Aggregate Surface Course (w/ 15% Shrinkage Factor)	2,622.00	cu.m.	1,641.40	4,303,750.80
Sub-total for E					
				P	4,303,750.80
F.	Direct Cost (C + E)				4,522,336.68
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		361,786.93
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		361,786.93
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		262,295.53
J.	Total Unit Cost				2,415.88

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

311(1)e1

Unit of Measurement:

sq.m.

57.50

47,314.00

Output per hour:

47,314.00

Quantity:

0.28 m. thk. width = 6.70m

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	102.86	611.92	62,939.96
	b. Skilled Labor	4	102.86	443.20	182,344.04
	c. Unskilled Labor	12	102.86	342.24	422,419.39
Sub-total for A					
				P	667,703.40
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment. (2014 ACEL Rates)				
	a. Transit Mixer (5 cu.m.)	4	102.86	10,544.00	4,338,076.66
	b. Concrete Vibrator	2	102.86	730.00	150,170.52
	c. Concrete Batch Plant (30 cu.m.)	1	102.86	14,076.00	1,447,808.40
	d. Payloader (1.50 cu.m.), LX80-2C	1	102.86	13,864.00	1,426,002.82
	e. Concrete Screeder (5.5 hp)	1	102.86	4,360.00	448,454.43
	f. Water truck/Pump (16000 L)	1	102.86	19,600.00	2,015,987.83
	g. Concrete Saw (7.5 hp), 14" Blade Ø	1	102.86	261.04	26,849.67
	h. Bar Cutter, Single Phase	1	102.86	1,758.00	18,082.18
	Minor Tools 5% of Labor		10.29		33,385.17
Sub-total for B					
				P	9,904,817.67
C.	Total (A+B)				10,572,521.07
D.	Output/day	460.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Reinforcing Steel Bar	23,657.00	kg.	47.00	1,111,879.00
	b. Curing Compound	13,721.06	L	48.00	658,610.88
	c. Asphalt Sealant	8,043.38	L	100.00	804,338.00
	d. Steel Forms (Rental)	21,764.44	m	60.00	1,305,866.40
	e. Sand	7,286.36	cu.m.	2,453.47	17,876,855.86
	f. Gravel	13,247.92	cu.m.	1,753.47	23,229,830.28
	g. Cement	125,855.24	bag	309.00	38,889,269.16
	h. Concrete Saw (Diamond Blade 14" Ø)	7.10	pc.	8,000.00	56,776.80
	i. Pipe Sleeve, 2" Ø	369.05	m.	110.00	40,595.41
	j. Grease/Tar	369.05	L	135.00	49,821.64
Sub-total for E					
				P	84,023,843.43
F.	Direct Cost (C + E)				94,596,364.50
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		7,567,709.16
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		7,567,709.16
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		5,486,589.14
J.	Total Unit Cost				2,435.19

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan 311(I)a Portland Cement Concrete Pavement, 150 mm. thk.

Item No./Description:

sq.m.

Unit of Measurement:

107.33

Output per hour:

7,041.00

For shouldering

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Const. Foreman	1	8.20	611.92	5,017.85
b.	Skilled Labor	4	8.20	443.20	14,537.27
c.	Unskilled Labor	12	8.20	342.24	33,677.14
Sub-total for A					P 53,232.27
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
a.	Transit Mixer (5 cu.m.)	4	8.20	10,544.00	345,850.67
b.	Concrete Vibrator	2	8.20	730.00	11,972.26
c.	Concrete Batch Plant (30 cu.m.)	1	8.20	14,076.00	115,425.69
d.	Payloader (1.50 cu.m.), LX80-2C	1	8.20	13,864.00	113,687.25
e.	Concrete Screeder (5.5 hp)	1	8.20	4,360.00	35,752.77
f.	Water truck/Pump (16000 L)	1	8.20	19,600.00	160,723.47
g.	Concrete Saw (7.5 hp), 14" Blade Ø	1	8.20	261.04	2,140.57
h.	Bar Cutter, Single Phase	1	0.82	1,758.00	1,441.59
	Minor Tools 5% of Labor				2,661.61
Sub-total for B					P 789,655.89
C.	Total (A+B)				842,888.16
D.	Output/day	858.64	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
a.	Reinforcing Steel Bar	2,323.53	kg.	47.00	109,205.91
b.	Curing Compound	2,041.89	L	48.00	98,010.72
c.	Asphalt Sealant	844.92	L	100.00	84,492.00
d.	Steel Forms (Rental)	3,238.86	m	60.00	194,331.60
e.	Sand	580.88	cu.m.	2,453.47	1,425,177.79
f.	Gravel	1,056.15	cu.m.	1,753.47	1,851,927.34
g.	Cement	10,068.63	bag	309.00	3,111,206.67
h.	Concrete Saw (Diamond Blade 14" Ø)	1.06	pc.	8,000.00	8,449.20
i.	Pipe Sleeve, 2" Ø	54.92	m.	110.00	6,041.18
j.	Grease/Tar	10.56	L	135.00	1,425.80
Sub-total for E					P 6,890,268.21
F.	Direct Cost (C + E)			P	7,733,156.37
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		618,652.51
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		618,652.51
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		448,523.07
J.	Total Unit Cost				1,337.73

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan 404(1b) Reinforcing Steel Bar, Grade 60

Item No./Description:

kg.

Unit of Measurement:

Output per hour:

Quantity:

180.00

15,277.50

For RCBC

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	10.61	611.92	6,492.09
	b. Skilled Labor	2	10.61	443.20	9,404.15
	c. Unskilled Labor	8	10.61	342.24	29,047.62
Sub-total for A					
				P	44,943.86
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment. (2014 ACEL Rates)				
	a. Bar Cutter	1	5.30	1,758.00	9,325.64
	b. Bar Bender	1	5.30	2,812.00	14,916.78
	c. Cargo Truck (9-10 mt)	1	1.59	9,696.00	15,430.28
Sub-total for B					
				P	39,672.70
C.	Total (A+B)				84,616.56
D.	Output/day	1,440.00	kg./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Tie Wire (2% of RSB)	320.83	kg.	78.00	25,024.55
	b. Reinforcing Steel Bar, Grade 60 (w/ 5% Wastage)	16,041.38	kg.	40.00	641,655.00
Sub-total for E					
				P	666,679.55
F.	Direct Cost (C + E)				751,296.10
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		60,103.69
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		60,103.69
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		43,575.17
J.	Total Unit Cost				59.90

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan 405(1a3) Structural Concrete, Class "A"

Item No./Description:

cu.m.

Unit of Measurement:

Output per hour:

Quantity:

1.40
181.00

For Lined Canal and RCBC

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	16.16	611.92	9,889.06
	b. Skilled Labor	4	16.16	443.20	28,649.71
	c. Unskilled Labor	8	16.16	342.24	44,246.74
	Installation/Removal of Formworks				
	a. Skilled Labor	4	16.16	443.20	28,649.71
	b. Unskilled Labor	8	16.16	342.24	44,246.74
Sub-total for A					P 155,681.98
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	16.16	1,376.00	22,237.14
	b. Concrete Vibrator	1	16.16	730.00	11,797.32
	c. Water Truck/Pump (16000 L)	1	1.62	19,600.00	31,675.00
	Minor Tools 5% of Labor Cost				7,784.10
	Sub-total for B			P	73,493.56
C.	Total (A+B)				229,175.54
D.	Output/day	11.20	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Lumber, Good - 4 uses	12,670.00	bd.ft.	56.00	177,380.00
	b. Marine Plywood (1/2" x 4' x 8') - 4 uses	289.60	pc.	865.00	62,626.00
	c. Assorted CWN (1 kg/100 bd.ft. of Lumber)	126.70	kg.	90.00	11,403.00
	d. Cement	1,719.50	bag	309.00	531,325.50
	e. Sand	90.50	cu.m.	2,453.47	222,039.04
	f. Gravel	181.00	cu.m.	1,753.47	317,378.07
	Sub-total for E			P	1,322,151.61
F.	Direct Cost (C + E)				1,551,327.15
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		124,106.17
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		124,106.17
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		89,976.97
J.	Total Unit Cost				10,439.32

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan 500(1)ø3 R.C. Culvert Pipe, 910 mm. dia.

Item No./Description:
Unit of Measurement:
Output per hour:
Quantity:

1.00
160.00

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

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	11.40	611.92	6,975.89
	b. Skilled Labor	2	11.40	443.20	10,104.96
	c. Unskilled Labor	4	11.40	342.24	15,606.14
Sub-total for A					
				P	32,686.99
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Backhoe	1	5.80	12,296.00	71,316.80
	b. Plate Compactor	1	5.80	984.00	5,707.20
	Minor Tools 10% of Labor Cost				3,268.70
	Sub-total for B			P	80,292.70
C.	Total (A+B)				112,979.69
D.	Output/day	8.00	In.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	172.80	bag	309.00	53,395.20
	b. Sand	9.76	cu.m.	2,453.47	23,945.87
	c. Sand Bedding/Selected Sandy Soil	20.48	cu.m.	1,753.47	35,911.07
	d. RC Pipes (910mm dia)	160.00	pc.	3,128.00	500,480.00
	Sub-total for E			P	613,732.13
F.	Direct Cost (C + E)				726,711.82
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		58,136.95
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		58,136.95
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		42,149.29
J.	Total Unit Cost				5,532.09

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

505(5) Grouted Riprap, Class 'A'

Unit of Measurement:

cu.m.

Output per hour:

1.25

Quantity:

38.50

For Headwall apron

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	3.85	611.92	2,355.89
	b. Skilled Labor	2	3.85	443.20	3,412.64
	c. Unskilled Labor	8	3.85	342.24	10,540.99
Sub-total for A					P 16,309.52
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	3.85	1,376.00	5,297.60
	b. Water Truck/Pump (16000 L)	1	0.19	19,600.00	3,773.00
	Minor Tools 5% of Labor				815.48
Sub-total for B					P 9,886.08
C.	Total (A+B)				26,195.60
D.	Output/day	10.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	115.50	bag	309.00	35,689.50
	b. Sand	9.63	cu.m.	2,453.47	23,614.65
	c. Gravel	0.58	cu.m.	1,753.47	1,012.63
	d. Weep Holes (PVC)	11.55	m.	110.00	1,270.50
	e. Filter Cloth	0.58	sq.m.	176.00	101.64
	f. Boulders (15 - 25 kg.)	40.43	cu.m.	1,558.47	63,001.15
	Miscellaneous 1% of Materials Cost				1,246.90
Sub-total for E					P 125,936.97
F.	Direct Cost (C + E)				152,132.57
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		12,170.61
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		12,170.61
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		8,823.69
J.	Total Unit Cost				4,812.92

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

506(1) Stone Masonry

Unit of Measurement:

cu.m.

Output per hour:

1.60

Quantity:

105.00

For headwall and wingwall

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	8.20	611.92	5,019.66
	b. Skilled Labor	2	8.20	443.20	7,271.25
	c. Unskilled Labor	8	8.20	342.24	22,459.50
Sub-total for A					P 34,750.41
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. One Bagger Mixer	1	8.20	1,376.00	11,287.50
	b. Water Truck/Pump (16000 L)	1	0.41	19,600.00	8,039.06
	c. Backhoe (Wheel Type 0.28 cu.m.)	1	0.82	12,296.00	10,086.56
	Minor Tools 10% of Labor				3,475.04
Sub-total for B					P 32,888.17
C.	Total (A+B)				67,638.57
D.	Output/day	12.80	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Cement	577.50	bag	309.00	178,447.50
	b. Sand	31.50	cu.m.	2,453.47	77,284.31
	c. Gravel Fill	2.10	cu.m.	1,753.47	3,682.29
	d. Weep Holes (PVC)	31.50	m.	110.00	3,465.00
	e. Filter Cloth	1.58	sq.m.	176.00	277.20
	f. Boulders (15 - 25 kg.)	110.25	cu.m.	1,558.47	171,821.32
	Miscellaneous 1% of Materials Cost				4,349.78
Sub-total for E					P 439,327.39
F.	Direct Cost (C + E)				506,965.96
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		40,557.28
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		40,557.28
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		29,404.03
J.	Total Unit Cost				5,880.81

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road Including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan 612(1) ReflectORIZED Thermoplastic Pavement Markings (White)

Item No./Description:

sq.m.

Unit of Measurement:

25.00

Output per hour:

1,621.00

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	8.11	611.92	4,959.61
	b. Skilled Labor	2	8.11	443.20	7,184.27
	c. Unskilled Labor	6	8.11	342.24	16,643.13
Sub-total for A					
				P	28,787.01
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment. (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (2-5 mt)	1	8.11	6,264.00	50,769.72
	b. Applicator Machine	1	8.11	750.00	6,078.75
	c. Kneading Machine	1	8.11	1,500.00	12,157.50
	Minor Tools 10% of Labor				2,878.70
Sub-total for B					
				P	71,884.67
C.	Total (A+B)				100,671.69
D.	Output/day	200.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (White)	526.83	bag	1,585.00	835,017.63
	b. Glass Beads	53.49	bag	2,500.00	133,732.50
	c. Primer	194.52	L	168.00	32,679.36
	d. LPG (50 kg)	6.48	cyl.	4,250.00	27,557.00
	e. LPG (12 kg)	3.24	cyl.	1,020.00	3,306.84
	f. Calsumine	202.63	kg.	30.00	6,078.75
	Miscellaneous 5% of Materials Cost				51,918.60
Sub-total for E					
				P	1,090,290.68
F.	Direct Cost (C + E)				1,190,962.37
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		95,276.99
H.	Contractor's Profit (CP)		8% per D.O. 197, s. 2016		95,276.99
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		69,075.82
J.	Total Unit Cost				894.87

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

612(2) ReflectORIZED Thermoplastic Pavement Markings (Yellow)

Unit of Measurement:

sq.m.

Output per hour:

25.00

Quantity:

333.00

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Const. Foreman	1	1.67	611.92	1,018.85
	b. Skilled Labor	2	1.67	443.20	1,475.86
	c. Unskilled Labor	6	1.67	342.24	3,418.98
Sub-total for A					5,913.68
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment. (2014 ACEL Rates)				
	a. Cargo Truck/Delivery Truck (2-5 mt)	1	1.67	6,264.00	10,429.56
	b. Applicator Machine	1	1.67	750.00	1,248.75
	c. Kneading Machine	1	1.67	1,500.00	2,497.50
	Minor Tools 10% of Labor				591.37
Sub-total for B					14,767.18
C.	Total (A+B)				20,680.86
D.	Output/day	200.00	sq.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Thermoplastic Paint (Yellow)	108.23	bag	1,585.00	171,536.63
	b. Glass Beads	10.99	bag	2,500.00	27,472.50
	c. Primer	39.96	L	168.00	6,713.28
	d. LPG (50 kg)	1.33	cyl.	4,250.00	5,661.00
	e. LPG (12 kg)	0.67	cyl.	1,020.00	679.32
	f. Calsumine	41.63	kg.	30.00	1,248.75
	Miscellaneous 5% of Materials Cost				10,665.57
Sub-total for E					223,977.05
F.	Direct Cost (C + E)			P	244,657.91
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197, s. 2016		19,572.63
H.	Contractor's Profit(CP)		8% per D.O. 197, s. 2016		19,572.63
I.	Value Added Tax (VAT)		5% per D.O. 197, s. 2016		14,190.16
J.	Total Unit Cost				894.87

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagandang-Menzi-Lanote, Isabela City, Basilan A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.

Item No./Description:

L.S.

Unit of Measurement:

Output per hour:

Quantity:

1.00

For Government Field Office, fully furnished as shown on plans

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
a.	Const. Foreman	1	8.00	611.92	4,895.36
b.	Mason	3	8.00	443.20	10,636.80
c.	Carpenter	3	8.00	443.20	10,636.80
d.	Laborer	6	8.00	342.24	16,427.52
Sub-total for A					42,596.48
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
a.	One Bagger Mixer	1	6.00	-	-
b.	Water Truck	1	1.00	-	-
Minor Tools 10% of Labor					4,259.65
Sub-total for B					4,259.65
C.	Total (A+B)			P	46,856.13
D.	Output/day	- L.S./day			
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
I.	Earthworks (Excavation, Embankment, Bedding)				
a.	Gravel Bedding	3.50	cu.m.	1,753.47	6,137.15
b.	Selected Fill	10.00	cu.m.	703.40	7,034.00
c.	Soil Poisoning	2.50	L	2,100.00	5,250.00
II.	Concrete Works (Footing, Columns, Beams & Slab on Grade)				
a.	Portland Cement	90.00	bag	309.00	27,810.00
b.	Crushed Gravel	21.00	cu.m.	1,753.47	36,822.87
c.	Washed Sand	18.00	cu.m.	2,453.47	44,162.46
III.	Reinforcing Bars (Footing Columns, Beams, & Slabs on Grade)				
a.	Deformed Round Bar, Grade 40	435.00	kg.	47.00	20,445.00
b.	No. 16 GI Tie Wire	20.00	kg.	91.00	1,820.00
IV.	Formworks (Columns & Beams)				
a.	Coco Lumber	400.00	bd.ft.	13.00	5,200.00
b.	Ordinary Plywood, 1/4"x4'x8'	18.00	pc.	403.00	7,254.00
c.	CWN, Assorted	5.00	kg.	90.00	450.00
V.	Masonry Works (masonry walls & plastering)				
a.	CHB 6" thk	650.00	pc.	18.00	11,700.00
b.	Portland Cement	45.00	bag	309.00	13,905.00
c.	Washed Sand	8.00	cu.m.	2,453.47	19,627.76
d.	10mm dia. X 6m RSB	65.00	kg.	47.00	3,055.00
e.	No. 16 GI Tie Wire	2.50	kg.	91.00	227.50
VI.	Doors and Windows				
a.	D-1, Hollow Core Flush Type swing door, complete w/ accessories, 0.90mx2.1m	2.00	set	2,018.52	4,037.04
b.	W-1, Jalousie window, 1.4m x 1.2m	2.00	set	1,310.40	2,620.80
c.	W-2, Jalousie window, 2.8m x 1.2m	2.00	set	2,620.80	5,241.60
Sub-total for E					222,800.18
Sub-total for E (I + II + III)					402,409.43
F.	Direct Cost (C + E)			P	449,265.55
G.	Overhead, Contingencies and Miscellaneous	8% per D.O. 197, s. 2016			35,941.24
H.	Contractor's Profit (CP)	8% per D.O. 197, s. 2016			35,941.24
I.	Value Added Tax (VAT)	5% per D.O. 197, s. 2016			26,057.40
J.	Total Unit Cost				547,205.44

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.

Unit of Measurement:

L.S.

Output per hour:

1.00

Quantity:

For Government Field Office, fully
furnished as shown on plans

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A				P	-
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
					-
C.	Total (A+B)			P	-
D.	Output/day				-
Sub-total for B					-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
VII. Steel Works					
a.	65 x 65 x 6mm. L	350.00	kg.	58.00	20,300.00
b.	50 x 50 x 6mm. L	250.00	kg.	58.00	14,500.00
c.	50 x 50 x 4mm. L	100.00	kg.	58.00	5,800.00
d.	Purlins C- 150 x 50 x 3mm.	18.00	kg.	58.00	1,044.00
e.	16mm dia. Cross bracing	35.00	kg.	58.00	2,030.00
f.	16mm dia. Turn buckle	20.00	pc.	118.00	2,360.00
g.	12mm thk base plate	25.00	kg.	44.00	1,100.00
h.	10mm thk batten plate	15.00	kg	47.00	705.00
i.	10mm dia. Sag rod	10.00	kg.	58.00	580.00
j.	20mm dia. X 350 mm anchor bolts	10.00	pc.	36.00	360.00
k.	Welding Rod	15.00	kg.	180.00	2,700.00
l.	Primer, Zinc Cromate	5.00	gal.	531.00	2,655.00
VIII Roofing Works					
a.	Pre-painted GI Roofing Sheet long span	55.00	sq.m.	562.00	30,910.00
b.	Pre-painted ridge roll ga 24, 0.60m width	10.00	ln.m.	237.00	2,370.00
c.	Pre-painted flashing, ga. 24	2.00	ln.m.	242.00	484.00
d.	Teckscrew 1 1/2"	1,000.00	pc.	1.25	1,250.00
e.	Roof Sealant	2.00	L	250.00	500.00
IX. Carpentry Works					
a.	Rough Lumber, sun dried tanguile	500.00	bd.ft.	56.00	28,000.00
b.	Plywood, ordinary 1/4" x 4' x 8'	30.00	pc.	403.00	12,090.00
c.	Finishing Nails	5.00	kg.	126.00	630.00
d.	Common Wire Nails	10.00	kg.	90.00	900.00
e.	Wood Preservative Brown	5.00	L	430.00	2,150.00
Sub-total for E				P	133,418.00
F.	Direct Cost (C + E)				
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	
J.	Total Unit Cost				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan A.1.1(3) Bunkhouse, 7.00 m. x 9.00 m.
L.S.

Item No./Description:

Unit of Measurement:

Output per hour:

Quantity:

1.00

For Government Field Office, fully
furnished as shown on plans

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A					
P					
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B					
P					
C.	Total (A+B)				-
D.	Output/day	L.S./day			-
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
X.	Electrical Works				
a.	2 x 40w Fluorescent lighting fixtures	5.00	set	1,030.00	5,150.00
b.	Porcelain Ceiling Outlet w/ female socket	2.00	pc	50.00	100.00
c.	Duplex 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	73.00	1,460.00
h.	15mm dia. PVC Coupling	25.00	pc	16.00	400.00
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	100.00	200.00
p.	wire holder	2.00	pc	50.00	100.00
q.	utility box	7.00	pc	32.00	224.00
r.	octagonal box	8.00	pc	34.00	272.00
s.	electrical tape (big)	7.00	pc	31.00	217.00
t.	panel board (side main w/ braches)	2.00	set	1,627.00	3,254.00
XI.	Plumbing Works				
a.	Water Closet (include. Fitting & Accessories)	1.00	set	8,280.00	8,280.00
b.	Lavatory (include fitting & Accessories)	1.00	set	7,200.00	7,200.00
c.	1/2" GI Pipe S-40	2.00	pc	500.00	1,000.00
d.	1/2" Water Faucet	2.00	pc	210.00	420.00
e.	1/2" Assorted Connector	8.00	pc	19.00	152.00
f.	4" PVC series 1000	1.00	pc	733.00	733.00
g.	2" PVC series 1000	1.00	pc	330.00	330.00
h.	4" PVC assorted Connector	6.00	pc	88.00	528.00
i.	2" PVC assorted Connector	8.00	pc	38.00	304.00
Sub-total for E					
P					
F.	Direct Cost (C + E)				46,191.25
G.	Overhead, Contingencies and Miscellaneous	8% per D.O. 197, s. 2016			
H.	Contractor's Profit(CF)	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:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan A.1.1(11)

Item No./Description:

Provision of Furnitures/Fixtures, Equipment and Appliances for the Field Office for the Field Engineer

Unit of Measurement: L.S.

Output per hour:

1.00

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A					
P					
-					
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
Sub-total for B					
P					
C.	Total (A+B)				-
D.	Output/day	L.S./day			
-					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Office Equipment/Facilities & Supplies					
Electric Desk Fan		1.00	unit	1,370.00	1,370.00
Folding Beds, Good Quality		2.00	each	2,700.00	5,400.00
pillows w/ pillow cases, fitted sheets and blanket		2.00	each	5,000.00	10,000.00
Double burner gas stove (Gasul)		1.00	unit	3,700.00	3,700.00
10 cups Rice Cooker		1.00	unit	2,500.00	2,500.00
Aluminum Cookware		1.00	set	3,500.00	3,500.00
Plate, Glass, Spoon and fork		1.00	dozen	2,000.00	2,000.00
6 seater dining table		1.00	each	2,800.00	2,800.00
Monoblock w/ Backrest chair		2.00	dozen	2,500.00	5,000.00
Plastic Pail & Basin		2.00	pc.	250.00	500.00
White Board		1.00	Unit	3,000.00	3,000.00
Bond Paper (Long)		20.00	ream	300.00	6,000.00
Bond Paper (Short)		20.00	ream	270.00	5,400.00
Yellow Pad		6.00	pad	35.00	210.00
White Board Marker		10.00	pc.	75.00	750.00
Sign Pen (assorted color)		2.00	dozen	580.00	1,160.00
Ballpen (assorted color)		4.00	box	180.00	720.00
Mechanical Pencil		6.00	unit	350.00	2,100.00
Pencil Lead, No. 5		4.00	box	145.00	580.00
Puncher		1.00	unit	250.00	250.00
Staple Pad w/ wire		2.00	unit	275.00	550.00
Cutter Blade		2.00	box	240.00	480.00
Scotch Tape		10.00	roll	45.00	450.00
Brown Envelop		7.00	dozen	125.00	875.00
Folder, Long		7.00	dozen	85.00	595.00
Folder, Short		7.00	dozen	70.00	490.00
Data File Folder		12.00	pc.	85.00	1,020.00
Digital Camera		1.00	set	9,089.41	9,089.41
Cellphone		1.00	set	10,000.00	10,000.00
Lighting/Water Fixtures					
a. Electrical Bill		10.80	mos.	3,000.00	32,400.00
b. Water Bill		10.80	mos.	1,500.00	16,200.00
c. LPG (11 kg)		10.80	mos.	1,000.00	10,800.00
Sub-total for E					
P					
139,889.41					
F.	Direct Cost (C + E)				
G.	Overhead, Contingencies and Miscellaneous	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	158,634.59			

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

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

each

Unit of Measurement:

Output per hour:

2.00

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount	
A.	Labor					
	a. Const. Foreman	1	2.00	611.92	1,223.84	
	b. Skilled Labor	1	2.00	443.20	886.40	
	c. Unskilled Labor	2	2.00	342.24	1,368.96	
Sub-total for A					P 3,479.20	
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount	
B.	Equipment, (2014 ACEL Rates)					
	Sub-total for B			P	-	
C.	Total (A+B)				3,479.20	
D.	Output/day	- each/day				
Name and Specifications		Quantity	Unit	Unit Cost	Amount	
E.	Materials					
	a. Ordinary Plywood 1/2" thk. x 4' x 8'	2.00	pc.	796.00	1,592.00	
	b. Tarpaulin (4' x 8')	2.00	pc.	1,000.00	2,000.00	
	c. Assorted Lumber	100.00	bd.ft.	56.00	5,600.00	
	d. Assorted CW Nails	2.00	kg.	90.00	180.00	
Sub-total for E					P 9,372.00	
	Sub-total for E			P	12,851.20	
F.	Direct Cost (C + E)					
G.	Overhead, Contingencies and Miscellaneous	8% per D.O. 197, s. 2016				1,028.10
H.	Contractor's Profit(CP)	8% per D.O. 197, s. 2016				1,028.10
I.	Value Added Tax (VAT)	5% per D.O. 197, s. 2016				745.37
J.	Total Unit Cost					7,826.38

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

B.7 Occupation Safety and Health Program

Unit of Measurement:

month

Output per hour:

10.80

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Safety Practitioner	1	324.00	611.92	198,262.08
	b. First Aider	1	162.00	443.20	71,798.40
	c. Flagman (2 per shift)	6	324.00	342.24	665,314.56
Sub-total for A					P 935,375.04
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
	a. Warning Signs and Barricades				45,000.00
	Sub-total for B			P	45,000.00
C.	Total (A+B)				980,375.04
D.	Output/day	- L.S./day			
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Rubber Boots (Long w/ steel toe, Black)	24.00	pair	400.00	9,600.00
	b. Working Gloves (Maong Material)	24.00	pair	15.00	360.00
	c. Rain Coats (Reinforced, Hip Length)	24.00	pc.	100.00	2,400.00
	d. Safety Hats	24.00	pc.	600.00	14,400.00
	Sub-total for E			P	26,760.00
F.	Direct Cost (C + E)				1,007,135.04
G.	Overhead, Contingencies and Miscellaneous			per D.O. 197, s. 2016	-
H.	Contractor's Profit (CP)		8%	per D.O. 197, s. 2016	80,570.80
I.	Value Added Tax (VAT)		5%	per D.O. 197, s. 2016	54,385.29
J.	Total Unit Cost				105,749.18

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

A.1.2(5) Operation and Maintenance of 4x4 Pick Up Type Service Vehicle for the Engineer month

Unit of Measurement:

Output per hour: 10.80

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	a. Driver	1	324	422.32	136,831.68
Sub-total for A					
				P	136,831.68
Name and Capacity		No. of Equipment	No. of Months	Monthly Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
				P	-
C.	Total (A+B)				136,831.68
D.	Output/day	-	L.S./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Diesel	6,480.00	L	50.00	324,000.00
	b. Spare Parts	1.00	L.S.	50,000.00	50,000.00
	c. Engine Oil & Lubricants	1.00	L.S.	48,600.00	48,600.00
	d. Miscellaneous	1.00	L.S.	45,000.00	45,000.00
Sub-total for E					
				P	467,600.00
F.	Direct Cost (C + E)				604,431.68
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		30,221.58
J.	Total Unit Cost				58,764.19

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdag-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

B.9 Mobilization & Demobilization

Unit of Measurement:

L.S.

Output per hour:

1.00

Quantity:

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
Sub-total for A					
P					
-					
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.	Equipment, (2014 ACEL Rates)				
a.	Low Bed Trailer	1	6.00	34,043.00	204,258.00
b.	Water Truck	2	8.00	19,600.00	313,600.00
c.	Backhoe	2	8.00	12,296.00	196,736.00
d.	Bulldozer	2	8.00	27,032.00	432,512.00
e.	Dumptruck	4	8.00	11,360.00	363,520.00
f.	Payloader	2	8.00	13,864.00	221,824.00
Sub-total for B					
P					
C.	Total (A+B)				1,732,450.00
D.	Output/day	L.S./day			
-					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
Sub-total for E					
P					
-					
F.	Direct Cost (C + E)				1,732,450.00
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		86,622.50
J.	Total Unit Cost				1,819,072.50

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME:

National Road & Bridges-National Roads-Construction/Repair/Rehabilitation/Improvement of Various Infrastructure Including Local Projects. Construction of Road including Right-of-Way for the Proposed By-Pass National Road along Sumagdang-Menzi-Lanote, Isabela City, Basilan

Item No./Description:

B.4(1) Construction Survey & Staking

Unit of Measurement:

km.

Output per hour:

0.04

Quantity:

6.740

	Designation	No. of Persons	No. of Days	Daily Rate	Amount
A.	Labor				
	For Field Works				
	a. Geodetic Engineer	1	21.06	833.31	17,551.59
	b. Skilled Laborer	3	21.06	443.20	28,004.70
	c. Laborer	3	21.06	342.24	21,625.29
	For Office Works				
	a. Geodetic Engineer	1	63.19	833.31	52,654.78
	b. Skilled Laborer	2	63.19	443.20	56,009.40
	Sub-total for A				175,845.76
				P	
B.	Equipment, (2014 ACEL Rates)	No. of Equipment	No. of Days	Daily Rate	Amount
	a. Total Station w/ complete accessories Minor Tools 10% of Labor	1	21.06	800.00	16,850.00 17,584.58
	Sub-total for B			P	34,434.58
C.	Total (A+B)				210,280.33
D.	Output/day	0.32	km./day		
	Name and Specifications	Quantity	Unit	Unit Cost	Amount
E.	Materials				
	a. Standard Stake Plan (800 mm x 910 mm)	40.00	pc	400.00	16,000.00
	b. Blue Printing	200.00	pc	15.00	3,000.00
	Miscellaneous				950.00
	5% of Materials Cost				
	Sub-total for E			P	19,950.00
F.	Direct Cost (C + E)				230,230.33
G.	Overhead, Contingencies and Miscellaneous		8% per D.O. 197. s. 2016		18,418.43
H.	Contractor's Profit (CP)		8% per D.O. 197. s. 2016		18,418.43
I.	Value Added Tax (VAT)		5% per D.O. 197. s. 2016		13,353.36
J.	Total Unit Cost				41,605.42

UNIT COST ANALYSIS FOR HAULING COST FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Portland Cement Concrete Pavement, 280 mm. thk.	125,855.24
Portland Cement Concrete Pavement, 150 mm. thk.	10,068.63
Structural Concrete, Class "A "	1,719.50
R.C. Culvert Pipe, 910 mm. dia.	172.80
Grouted Riprap, Class 'A'	115.50
Stone Masonry	577.50
Bunkhouse, 7.00 m. x 9.00 m.	90.00
T O T A L	138,599.17

Quantity = 138,599.17 Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Isabela City DEO	22.00
Batching plant	

*Average hauling distance from Source to assumed Stockpiling area :
say 22.00 km.

Delivery Charge = P 0.120 x 22.00
= P 2.64 / bag

*Delivery Truck : 138,599.17 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.

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

Speed when loaded : 30.00 kph
Speed when unloaded : 40.00 kph
Loaded running = $\frac{22.00 \times 60}{30.00}$ = 44.00 mins.
Unloaded running = $\frac{22.00 \times 60}{40.00}$ = 33.00 mins.
Loading and Unloading : 45.00 mins.
Capacity of Dumprtruck : 8.00 cu.m.
Total Cycle time : 500.00 bags
No. of trips for Dumprtruck = $\frac{122.00}{8.0 \times 60.00}$ = 3.93 say 3.93 trip
per day
Dumprtruck daily output = 500 x 3.93 = 1,967.21 cu.m.
Using (4) Dumprtrucks = 4 x 1967.21 = 7,868.85 cu.m.

1. No. of days for Delivery Truck = $\frac{138,599.17}{7,868.85}$ = 17.61 say 17.61 days
2. No. of days for Labor, for unloading = complimentary to D. Truck days = 17.61 days

DELIVERY COST :

138,599.17 - Bags, Portland Cement	@ P	2.64	/ bag	= P	365,901.81
			Sub - Total	P	365,901.81

LABOR :

1 - Foreman	@ P	611.92 /day	x	17.61 days	= P	10,778.14
10 - Laborers, unloading	@ P	342.24 /day	x	17.61 days	= P	60,280.94
			Sub - Total	P		71,059.08

MATERIALS :

138,599.17 - Bags, Portland Cement	@ P	305.00	/ bag	= P	42,272,746.85
(Pick-Up Price)			Sub - Total	P	42,272,746.85

Estimated Quantity	138,599.17 Bags
Unit Cost	P 308.15 / Bag, say P 309.00 / Bag
Grand Total	P 42,709,707.74
Delivery Cost	P 365,901.81
Labor	P 71,059.08
Materials	P 42,272,746.85

UNIT COST ANALYSIS FOR HAULING COST FOR ALL AGGREGATES

Hauling Cost from the Quarry to Batching plant

Item No. : ALL AGGREGATES	Terrain : Flat to Rolling
Quantity : 1,000.00	Unit : cu.m.
	Hauling Distance : 21.00 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	= $\frac{5.00 \times 60}{30.00}$	= 10.00 mins.
Unloaded running	= $\frac{5.00 \times 60}{40.00}$	= 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	= $\frac{8 \times 60.00}{22.50}$	= 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 = $\frac{1,000.00}{853.33}$ = 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

Estimated Quantity	1,000.00	cu.m.				
Unit Cost	P	2.54 /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					
			Hauling Distance	Unit Cost per cu.m./km.	Hauling Cost per cu.m.	Unit Price
Cost of Fine Aggregates:			21.00 x	12.07 =	253.47 +	2,200.00 = 2,453.47
Cost of Coarse Aggregates:			21.00 x	12.07 =	253.47 +	1,500.00 = 1,753.47
Cost of Item 200 Materials:			20.00 x	12.07 =	241.40 +	1,500.00 = 1,741.40
Cost of Item 300 Materials:			20.00 x	12.07 =	241.40 +	1,400.00 = 1,641.40
Cost of Boulders:			21.00 x	12.07 =	253.47 +	1,305.00 = 1,558.47
Cost of Embankment, Selected Borrow:			20.00 x	12.07 =	241.40 +	462.00 = 703.40