

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 : CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE	Appropriation : P 60,000,000.00 Source of Funds : CY-2018 Issued Obligated Authority : Released : Cal. Days to Complete : 170 Calendar Days Desirable Starting Date : Upon Approval Mode of Implementation :
PROJECT CATEGORY : FLOOD CONTROL	
PROJECT DESCRIPTION : Scope of Work : Construction of Flood Control	NET LENGTH : Upstream Side: Beg. Of Project : 0 + 000.00 End Of Project : 0 + 317.50 Net Length : 317.50 In.m.

MINIMUM EQUIPMENT REQUIREMENT :			TECHNICAL PERSONNEL REQUIRED :		
Description	No.	Description	No.	Description	No.
Dumptruck (10-Wheeler)	12	Water Pump	1	Project Engineer	1
Drop Hammer	4	Cutting Outfit	1	Materials Engineer	1
Crawler Crane	2	Concrete Vibrator	2	Geometric Surveyor	1
Truck mounted Crane	1	Air compressor	2	Foreman	1
Road Grader	2	Bar Cutter	1	Materials Lab. Tech.	1
Road Roller	2	Bar Bender	1	Mason	10
Payloader	4	Conc. Mixer (1-Bagger)	2	Carpenter	6
Water Truck	2	Plate Compactor	1	Laborers (Skilled)	10
Water Tank	2	Jack Hammer	1	Laborers (Unskilled)	20
Backhoe with breaker	1	Diesel Hammer	1		
Vibro Hammer	1	Service Truck	1		

ESTIMATED COST OF PROPOSED WORK

ITEM NO.	DESCRIPTION	% OF TOTAL	UNIT	QUANTITY	DIRECT COST	
					TOTAL	UNIT COST
PART B - OTHER GENERAL REQUIREMENTS						
A.1.1 (3)	Construction of Field Office for the Engineer	1.004	L. S.	1.00	462,625.56	462,625.56
A.1.1 (11)	Provision of Furnitures/Fixtures, Equipment & Appliances for the Field Office for the Engineer	0.426	L. S.	1.00	196,288.00	196,288.00
A.1.2 (5)	Operation & Maintenance of Go'vt Service Vehicle	0.566	L.S.	1.00	260,740.92	260,740.92
B.4(1)	Construction Survey and Staking	0.075	k.m.	0.318	34,584.76	108,928.39
B.5	Project Billboard	0.014	units	2.00	6,568.90	3,284.45
B.7	Occupational Safety and Health Program	0.716	L. S.	1.00	330,040.00	330,040.00
B.9	Mobilization & Demobilization	0.886	L. S.	1.00	408,516.00	408,516.00
PART C - EARTHWORKS						
1702(1)	Structure Excavation	0.586	cu.m.	1,174.00	270,155.77	230.12
PART J - FLOOD CONTROL AND DRAINAGE						
404(1)a	Reinforcing Steel, (Grade 40)	1.932	kg.	18,063.00	890,571.73	49.30
404(1)b	Reinforcing Steel, (Grade 60)	0.503	kg.	4,509.00	231,803.64	51.41
405(1)b3	Structural Concrete, fc" = 27.58 MPA	9.330	cu.m.	730.00	4,299,744.74	5,890.06
1716(6)	Structural Steel Sheet Piles, Furnished (0.40 m wide)	33.359	In.m.	4,764.00	15,374,282.05	3,227.18
1716 (12)	Structural Steel Sheet Piles, Driven	7.576	In.m.	4,764.00	3,491,492.77	732.89
1716(16)	Steel Sheet Test Piles, Furnished and Driven	0.141	In.m.	12.00	65,107.68	5,425.64
PART G - DRAINAGE AND SLOPE PROTECTION						
1710(5)	Grouted Riprap, Class "A"	11.005	cu.m.	1,047.00	5,071,826.97	4,844.15
508(1)	Handlaid Rock Embankment	31.880	cu.m.	10,121.00	14,692,430.95	1,451.68
TOTAL		100.000			P 46,086,780.42	

NAME OF PROJECT :

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

BREAKDOWN OF ESTIMATED EXPENDITURES	% OF TOTAL	AMOUNT
I. ESTIMATED COST		
A. DIRECT COST		
A.1. Materials	60.14	36,083,090.42
A.2. Labor	5.40	3,238,650.90
A.3. Equipment Expenses	11.28	6,765,039.11
SUB-TOTAL (DIRECT COST)	76.81	P 46,086,780.42
B. INDIRECT COST (Per D.O. # 57)		
B.1. Overhead, Contingency & Misc. (12 % Max. of D.C.)	8.98	5,386,943.46
B.2. Profit (8 % Max. of D.C.)	6.06	3,633,401.88
C. VAT (5 % of D.C. and I.C. per D. O. 197 S. 2016)	4.59	2,755,356.29
SUBTOTAL (CONTRACT COST)	96.44	P 57,862,482.05
II. ESTIMATED GOVERNMENT EXPENDITURES		
1. Engineering and Administrative Overhead (3.5%)	3.50	2,100,000.00
2. Detailed Engineering (1%)	0.00	
3. Reserved for the Payment of RROW	0.06	37,517.95
4. Provisional Sum	0.00	
TOTAL ESTIMATED PROJECT COST	100.00	P 60,000,000.00

Prepared :

Submitted :


JOSEPHINE B. RENGQUIJON
Engineer I


LEONCIO B. SOLAMILLO
Chief, Construction Division

Recommending Approval:


CAYAMOMBAO D. DIA
Assistant Regional Director

Approved:


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

APPROVED BUDGET FOR THE CONTRACT

CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Project Name and Location

Stations : Upstream Side:

Length : 317.50000

Contract Duration : 170 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 6)	(10)	(11)	(12)	(13)
PART B - OTHER GENERAL REQUIREMENTS													
A.1.1 (3)	Construction of Field Office for the Engineer	1.00	L. S.	462,625.55	12.00	8.00	20.00		92,525.11	27,757.53	120,282.65	582,908.21	582,908.21
A.1.1 (11)	Provision of Furniture/Fixtures, Equipment & Appliances for the Field Office for the Engineer	1.00	L. S.	196,288.00		8.00	8.00		15,703.04	10,599.55	26,302.59	222,590.59	222,590.59
A.1.2 (5)	Operation & Maintenance of Govt Service Vehicle	1.00	L.S.	260,740.92					-	13,037.05	13,037.05	273,777.96	273,777.96
B.4 (1)	Construction Survey and Staking	0.32	km.	34,584.76	12.00	8.00	20.00		6,916.95	2,075.09	8,992.04	43,576.80	137,249.77
B.5	Project Billboard	200	units	6,568.90	12.00	8.00	20.00		1,313.78	394.13	1,707.91	8,276.81	4,139.41
B.7	Occupational Safety and Health Program	1.00	L. S.	330,040.00		8.00	8.00		26,403.20	17,822.16	44,225.36	374,265.36	374,265.36
B.9	Mobilization & Demobilization	1.00	L. S.	408,516.00			0.00		-	20,425.80	20,425.80	428,941.80	428,941.80
PART C - EARTHWORKS													
1702 (1)	Structure Excavation	1,174.00	cum.	270,155.77	12.00	8.00	20.00		54,031.15	16,209.35	70,240.50	340,396.27	289.95
PART J - FLOOD CONTROL AND DRAINAGE													
404 (1) a	Reinforcing Steel, (Grade 40)	18,063.00	kg.	890,571.73	12.00	8.00	20.00		178,114.35	53,434.30	231,548.65	1,122,120.38	62.12
404 (1) b	Reinforcing Steel, (Grade 60)	4,509.00	kg.	231,803.64	12.00	8.00	20.00		46,360.73	13,908.22	60,268.95	292,072.59	64.78
405 (1) b3	Structural Concrete, f'c = 27.58 MPA	730.00	cum.	4,299,744.74	12.00	8.00	20.00		859,948.95	257,984.68	1,117,933.63	5,417,678.37	7,421.48
1716 (6)	Structural Steel Sheet Piles, Furnished (0.40 m width)	4,764.00	lin.m.	15,374,282.05	12.00	8.00	20.00		3,074,856.41	922,456.92	3,997,313.33	19,371,595.38	4,066.25
1716 (12)	Structural Steel Sheet Piles, Driven	4,764.00	lin.m.	3,491,492.77	12.00	8.00	20.00		698,298.55	209,489.57	907,788.12	4,399,280.89	923.44
1716 (16)	Steel Sheet Test Piles, Furnished and Driven	12.00	lin.m.	65,107.68	12.00	8.00	20.00		13,021.54	3,906.46	16,928.00	82,035.67	6,836.31
PART G - DRAINAGE AND SLOPE PROTECTION													
1710 (5)	Grouted Riprap, Class "A"	1,047.00	cum.	5,071,826.97	12.00	8.00	20.00		1,014,365.39	304,209.62	1,318,675.01	6,390,501.98	6,103.63
508 (1)	Handlaid Rock Embankment	10,121.00	cum.	14,692,430.95	12.00	8.00	20.00		2,938,486.19	881,545.86	3,820,032.05	18,512,462.99	1,829.11
										2,755,356.29	11,775,701.63	57,842,482.05	

Prepared /Submitted by :

Recommending Approval:

Approved :

BELEN A. SAPALUDIA
Engineer IV - Chairman Estimating Committee

CAYANOMBAO D. DIA
Assistant Regional Director

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

WORK PROGRAMME/SCHEDULE

Prepared:

Submitted:

Approved:

JOSEPHINE B. RENGQUILLO
Engineer II

LEONCIO B. SOLAMILLO
Chief, Construction Division


J. K. RASMUSSEN
Regional Director

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, 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: 18,063.00

Use 2 gangs of labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	6.27	611.92	3,837.89
b.	Skilled	4	6.27	443.20	11,118.78
c.	Laborers, Unskilled	16	6.27	342.24	34,343.78
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	49,300.45
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
a.	Bar Cutter	2	3.14	1,758.00	11,025.96
b.	Bar Bender	2	3.14	2,812.00	17,636.51
c.	Cargo Truck	2	0.47	9,696.00	9,121.82
					-
					-
					-
					-
					-
					-
					-
Sub-total for B				P	37,784.28
C. Total (A+B)					87,084.73
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	18,967.00	kgs.	41.00	777,647.00
b.	Tie Wire	380.00	kgs.	68.00	25,840.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	803,487.00
F. Direct Cost (C + E)					890,571.73
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		106,868.61
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		71,245.74
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		53,434.30
L. Total Unit Cost					62.12

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, 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: 4,509.00 Use 2 gangs of labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Foreman	1	1.57	611.92	958.04
b.	Skilled	4	1.57	443.20	2,775.54
c.	Laborers, Unskilled	16	1.57	342.24	8,573.11
					-
					-
					-
					-
					-
					-
Sub-total for A				P	12,306.69
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
a.	Bar Cutter	2	0.78	1,758.00	2,752.37
b.	Bar Bender	2	0.78	2,812.00	4,402.54
c.	Cargo Truck	2	0.12	9,696.00	2,277.05
					-
					-
					-
					-
					-
					-
Sub-total for B				P	9,431.95
C. Total (A+B)					21,738.64
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	4,735.00	kgs.	43.00	203,605.00
b.	Tie Wire	95.00	kgs.	68.00	6,460.00
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	210,065.00
F. Direct Cost (C + E)					231,803.64
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		27,816.44
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		18,544.29
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		13,908.22
L. Total Unit Cost					64.78

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

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

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, (2014 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.	680.00	-
	Selected Fill	0.00	cu. m.	500.00	-
	Soil Poisoning	0.00	lit.	1,900.00	-
	Portland Cement	220.00	bag	276.20	60,764.00
	Crushed gravel	15.00	cu.m.	510.00	7,650.00
	Washed Sand	25.00	cu.m.	510.00	12,750.00
	Deformed Bars, Grade 60	800.00	kg.	43.00	34,400.00
	No. #16 G.I. Tie Wire	35.00	kg.	68.00	2,380.00
	Coco Lumber	600.00	bd.ft.	15.00	9,000.00
	Ordinary Plywood, 1/4" x 4' x8"	0.00	pcs.	656.67	-
	CWN, Assorted	20.00	kg.	44.00	880.00
	CHB 6" thick	850.00	pc.	20.00	17,000.00
	10mm dia. X 6m RSB	150.00	kg.	43.00	6,450.00
	D-1,Hollow Core Flush Type swing door,complete w/ accessories	1.00	set	1,495.20	1,495.20
	W-1,Jalousie 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	400.00	kg.	48.00	19,200.00
	50 x 50 x 6mm Angle Bar	200.00	kg.	48.00	9,600.00
	50 x 50 x 4mm Angle Bar	120.00	kg.	48.00	5,760.00
	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	202,759.20
Total Cost For Materials					308,610.80
F. Direct Cost (C + E)					462,625.56
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		55,515.07
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		37,010.04
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		27,757.53
L. Total Unit Cost					582,908.21

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L.S.

Output per hour:

Quantity: 1.00

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, (2014 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.	41.00	615.00
	20mm dia. X 350mm Anchor Bolts	15.00	pc.	150.00	2,250.00
	Welding Rod	25.00	kg.	135.00	3,375.00
	Primer, Zinc Cromate	5.00	gal.	531.00	2,655.00
	Pre-painted G.I. Roofing Sht. Long span	55.00	sq.m.	420.00	23,100.00
	Pre-painted flashing Ridge Roll GA24,0.60m v	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	700.00	bd.ft.	37.00	25,900.00
	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	2.00	roll	3,600.00	7,200.00
	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	86,660.60
F.	Direct Cost (C + E)				86,660.60
G.	Overhead, Contingencies and Miscellaneous	12% 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				

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

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

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				

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
Office Equipment/Facilities& Supplies				-
				-
				-
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)				196,288.00
G. Overhead, Contingencies and Miscellaneous				-
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		15,703.04
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		10,599.55
L. Total Unit Cost				222,590.59

jcb

Item No./Description:	A.1.1 (11)	Provision of Furnitures/Fixtures, Equipment & Appliances for the Field Office for the Engineer
Unit of Measurement:	L. S.	
Output per hour:		
Quantity:	1.00	

[illegible]

jcbr

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: A.1.2 (5) Operation & Maintenance of Go'vt 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	170.00	443.20	75,344.00
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	75,344.00
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B.					
a.	GOV'T SERVICE VEHICLE	1	5.67		-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B				P	-
C.	Total (A+B)				75,344.00
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E.	Materials				
a.	liters, Diesel Fuel	1,700.00	liter	41.55	70,635.00
b.	Engine Oil & Lubricants	1.00	l.s.	10,595.25	10,595.25
c.	Tires	5.00	pcs.	9,500.00	47,500.00
d.	Spare parts etc.	1.00	L.S.	56,666.67	56,666.67
					-
					-
					-
					-
					-
					-
Sub-total for E				P	185,396.92
F. Direct Cost (C + E)					260,740.92
G. Overhead, Contingencies and Miscellaneous					-
H. Contractor's Profit(CP)					-
I. Value Added Tax (VAT)			5% per D. O. 197 S. 2016		13,037.05
L. Total Unit Cost					273,777.96

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: B.4(1) Construction Survey and Staking
Unit of Measurement: k.m.
Output per hour:
Quantity: 0.32

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
For Fieldworks: (assumed output = 300 ln.m.)				
a. Geodetic Engineer	1	1.06	833.31	881.92
b. Skilled Laborer	1	1.06	443.20	469.05
c. Laborer	1	1.06	342.24	362.20
				-
For Office works: (assumed output = 100 ln.m.)				
a. Geodetic Engineer	1	3.18	833.31	2,645.76
b. Skilled Laborer	1	3.18	443.20	1,407.16
				-
				-
Sub-total for A			P	5,766.10
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. Total Station complete w/ accessories	1	1.06	800.00	846.67
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	846.67
C. Total (A+B)				6,612.76
D. Output/day				
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Standard Stake Plan (800mm x 910mm plotting)	72.00	sheets	200.00	14,400.00
				-
b. blue print as stake plan	360.00	pcs.	34.00	12,240.00
				-
miscellaneous(5% of Materials)				1,332.00
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	27,972.00
F. Direct Cost (C + E)				34,584.76
G. Overhead, Contingencies and Miscellaneous		12% per D.O. 197 S. 2016		4,150.17
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		2,766.78
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		2,075.09
L. Total Unit Cost				137,249.77

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: B.5 Project Billboard
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, (2014 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.	36.00	3,600.00
d.	Assorted Sizes C.W. Nails	2.00	kg.	44.00	88.00
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	6,134.00
F. Direct Cost (C + E)					6,568.90
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		788.27
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		525.51
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		394.13
L. Total Unit Cost					4,138.41

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, 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	42.50	443.20	18,836.00
b.	First Aider	1	170.00	342.24	58,180.80
c.	laborers (flagmen) - 2 laborers/shift	4	170.00	342.24	232,723.20
					-
					-
					-
					-
					-
					-
Sub-total for A				P	309,740.00
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
a.					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B				P	-
C. Total (A+B)					309,740.00
D. Output/day					
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
					-
a.	Pairs, Rubber Boots Men, Long, with	20.00	pair	400.00	8,000.00
b.	Steel Toe, Black				
c.	Pairs, Working Gloves (Maong Materials)	20.00	pair	15.00	300.00
d.	Pcs., Rain Coats (Rainforced, Hip Length Small, Medium, & Large)	20.00	pcs.	100.00	2,000.00
e.	Barricades/Signboards	1.00	L.S	10,000.00	10,000.00
					-
					-
					-
					-
					-
					-
Sub-total for E				P	20,300.00
F. Direct Cost (C + E)					330,040.00
G. Overhead, Contingencies and Miscellaneous					
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		26,403.20
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		17,822.16
L. Total Unit Cost					374,265.36

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

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

Unit of Measurement: L. S.

Output per hour:

Quantity: 1.00

[illegible]

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

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	7.34	611.92	4,489.96
b.	Laborers	3	7.34	342.24	7,533.56
					-
					-
					-
					-
					-
					-
Sub-total for A					P 12,023.52
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
a.	Dump Truck	2	7.34	11,360.00	166,708.00
b.	Backhoe	1	7.34	12,296.00	90,221.90
	Minor Tools(10% of Labor Cost)				1,202.35
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for B					P 258,132.25
C. Total (A+B)					270,155.77
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)					270,155.77
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		32,418.69
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		21,612.46
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		16,209.35
L. Total Unit Cost					289.95

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: 405(1)b3 Structural Concrete, fc" = 27.58 MPA
Unit of Measurement: cu.m.
Output per hour: 1.40 cu.m./hr.
Quantity: 730.00 Use 3 gangs of equipment & labor

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Foreman	1	21.73	611.92	13,294.69
b. Skilled	12	21.73	443.20	115,548.57
c. Unskilled	24	21.73	342.24	178,453.71
Installation/Removal of Formworks				
b. Skilled	6	21.73	443.20	57,774.29
c. Unskilled	12	21.73	342.24	89,226.86
				-
				-
Sub-total for A			P	454,298.12
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. One bagger mixer	3	21.73	1,376.00	89,685.71
b. Concrete vibrator	3	21.73	730.00	47,580.36
c. Water truck	3	2.17	19,600.00	127,750.00
Minor Tools (5% of Labor)				22,714.91
				-
				-
				-
				-
				-
Sub-total for B			P	287,730.98
C. Total (A+B)				742,029.10
D. Output/day	33.60	In.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	8,030.00	bag	276.20	2,217,886.00
b. Fine Aggregates	365.00	cu.m.	510.00	186,150.00
c. Coarse Aggregates	730.00	pc.	680.00	496,400.00
d. Form lumber	12,775.00	pc.	36.00	459,900.00
e. Plywood	292.00	pc.	656.67	191,747.64
f. Assorted CWNails	128.00	pc.	44.00	5,632.00
				-
				-
				-
				-
				-
Sub-total for E			P	3,557,715.64
F. Direct Cost (C + E)				4,299,744.74
G. Overhead, Contingencies and Miscellaneous		12% per D.O. 197 S. 2016		515,969.37
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		343,979.58
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		257,984.68
L. Total Unit Cost				7,421.48

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: 1716(6) Structural Steel Sheet Piles, Furnished(0.40 m wide)
Unit of Measurement: ln.m.
Output per hour: 48 ln.m./hr.
Quantity: 4,764.00 Use 2 gangs of labor & equipment

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	6.20	611.92	3,795.82
b. Skilled Laborers	4	6.20	443.20	10,996.90
c. Unskilled Laborers	4	6.20	342.24	8,491.83
				-
				-
				-
				-
				-
				-
Sub-total for A			P	23,284.55
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. Truck Mounted Crane	2	6.20	20,848.00	258,645.50
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for B			P	258,645.50
C. Total (A+B)				281,930.05
D. Output/day	768.00	ln.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Steel Sheet Pile FY50	228,672.00	kg.	66.00	15,092,352.00
				-
				-
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	15,092,352.00
F. Direct Cost (C + E)				15,374,282.05
G. Overhead, Contingencies and Miscellaneous		12% per D.O. 197 S. 2016		1,844,913.85
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		1,229,942.56
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		922,456.92
L. Total Unit Cost				4,066.25

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: 1716 (12) Structural Steel Sheet Piles, Driven
Unit of Measurement: ln.m.
Output per hour: 10.00 ln.m./hr.
Quantity: 4,764.00

Use 2 gangs for labor & equipment

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	29.78	611.92	18,219.92
b.	Skilled Laborers	12	29.78	443.20	158,355.36
c.	Unskilled Laborers	12	29.78	342.24	122,282.35
					-
					-
					-
					-
					-
					-
					-
Sub-total for A				P	298,857.63
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					
a.	Truck Mounted Crane	2	29.78	20,848.00	1,241,498.40
b.	Vibro Hammer	2	29.78	16,984.00	1,011,397.20
c.	Gen. Set	2	29.78	10,373.36	617,733.59
d.	Welding Machine	2	29.78	2,968.00	176,744.40
e.	Cutting Outfit	2	14.89	363.60	10,826.19
					-
					-
					-
Sub-total for B				P	3,058,199.78
C. Total (A+B)					3,357,057.41
D. Output/day		160.00	ln.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Welding Rod	114.34	m.	135.00	15,435.36
b.	Oxygen/Acetylene	34.00	set	3,500.00	119,000.00
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	134,435.36
F. Direct Cost (C + E)					3,491,492.77
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		418,979.13
H. Contractor's Profit (CP)			8% per D.O. 197 S. 2016		279,319.42
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		209,489.57
L. Total Unit Cost					923.44

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: 1716(16) Steel Sheet Test Piles, Furnished and Driven
 Unit of Measurement: ln.m.
 Output per hour: 8.000 ln.m./hr.
 Quantity: 12.00

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	0.19	611.92	114.74
b. Skilled	6	0.19	443.20	498.60
c. Laborers, Unskilled	6	0.19	342.24	385.02
				-
				-
				-
				-
				-
				-
				-
Sub-total for A			P	998.36
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. Truck Mounted Crane	1	0.19	20,848.00	3,909.00
b. Vibro Hammer	1	0.19	16,984.00	3,184.50
c. Gen. Set	1	0.19	10,373.36	1,945.01
d. Welding Machine	1	0.19	2,968.00	556.50
e. Cutting Outfit	1	0.09	363.60	99.84
				-
				-
				-
				-
Sub-total for B			P	9,694.84
C. Total (A+B)				10,693.20
D. Output/day	64.00	ln.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Coco logs	10.20	m.	410.00	4,182.00
b. Good Lumber	48.00	bd.ft.	36.00	1,728.00
c. Nail/Spike	1.92	kg.	42.00	80.64
d. Steel Sheet Pile	12.00	m.	3,998.48	47,981.76
e. Welding Rod	0.29	kg.	135.00	38.88
f. Oxy/Acetylene	0.12	set	3,500.00	403.20
				-
				-
				-
				-
				-
				-
				-
Sub-total for E			P	54,414.48
F. Direct Cost (C + E)				65,107.68
G. Overhead, Contingencies and Miscellaneous		12% per D.O. 197 S. 2016		7,812.92
H. Contractor's Profit (CP)		8% per D.O. 197 S. 2016		5,208.61
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		3,906.46
L. Total Unit Cost				6,836.31

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER, BARANGAY DR. JOSE RIZAL, KATIPUNAN, ZAMBOANGA DEL NORTE

Item No./Description: 1710(5) Grouted Riprap, Class "A"
Unit of Measurement: cu.m.
Output per hour: 1.25 cu.m./hr.
Quantity: 1,047.00 Use 3 gangs for labor & equipment

Designation	No. of Persons	No. of Days	Daily Rate	Amount
A. Labor				
a. Const. Foreman	1	34.90	611.92	21,356.01
b. Skilled laborer	6	34.90	443.20	92,806.08
c. Unskilled Laborer	24	34.90	342.24	286,660.22
				-
				-
				-
				-
				-
				-
Sub-total for A				P 400,822.31
Name and Capacity	No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)				
a. One bagger mixer	3	34.90	1,376.00	144,067.20
b. Water truck	3	34.90	19,600.00	2,052,120.00
				-
Minor Tools(10% of Labor)				40,082.23
				-
				-
				-
				-
				-
Sub-total for B				P 2,236,269.43
C. Total (A+B)				2,637,091.74
D. Output/day	30.00	cu.m./day		
Name and Specifications	Quantity	Unit	Unit Cost	Amount
E. Materials				
a. Portland Cement	3,141.00	bag	276.20	867,544.20
b. Fine Aggregates	262.00	cu.m.	510.00	133,620.00
c. Gravel Fill	15.71	cu.m.	680.00	10,679.40
d. Weep Holes	314.00	m.	144.67	45,425.33
e. Filter Cloth	16.00	sq.m.	160.00	2,560.00
f. Boulders	1,100.00	cu.m.	1,228.00	1,350,800.00
Miscellaneous(1% Materials)				24,106.29
				-
				-
				-
				-
				-
Sub-total for E				P 2,434,735.22
F. Direct Cost (C + E)				5,071,826.97
G. Overhead, Contingencies and Miscellaneous		12% per D.O. 197 S. 2016		608,619.24
H. Contractor's Profit(CP)		8% per D.O. 197 S. 2016		405,746.16
I. Value Added Tax (VAT)		5% per D.O. 197 S. 2016		304,309.62
L. Total Unit Cost				6,103.63

DETAILED UNIT PRICE ANALYSIS

PROJECT NAME: CONSTRUCTION/MAINTENANCE OF FLOOD MITIGATION STRUCTURES AND DRAINAGE SYSTEMS - CONSTRUCTION OF RIVER/FLOOD CONTROL PROJECT ALONG DICAYO RIVER,BARANGAY DR. JOSE RIZAL, KATIPUNAN, 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: 10,121.00 Use 10 gangs for labor

Designation		No. of Persons	No. of Days	Daily Rate	Amount
A. Labor					
a.	Const. Foreman	1	40.48	611.92	24,772.97
b.	Skilled laborer	20	40.48	443.20	358,850.18
c.	Unskilled Laborer	80	40.48	342.24	1,108,419.53
					-
					-
					-
					-
					-
					-
Sub-total for A				P	1,492,042.68
Name and Capacity		No. of Equipment	No. of Days	Daily Rate	Amount
B. Equipment, (2014 ACEL Rates)					-
					-
					-
Minor Tools(10% of Labor)					149,204.27
					-
					-
					-
					-
					-
Sub-total for B				P	149,204.27
C. Total (A+B)					1,641,246.95
D. Output/day		250.00	cu.m./day		
Name and Specifications		Quantity	Unit	Unit Cost	Amount
E. Materials					
a.	Boulders	10,628.00	cu.m.	1,228.00	13,051,184.00
					-
					-
					-
					-
					-
					-
					-
					-
					-
Sub-total for E				P	13,051,184.00
F. Direct Cost (C + E)					14,692,430.95
G. Overhead, Contingencies and Miscellaneous			12% per D.O. 197 S. 2016		1,763,091.71
H. Contractor's Profit(CP)			8% per D.O. 197 S. 2016		1,175,394.48
I. Value Added Tax (VAT)			5% per D.O. 197 S. 2016		881,545.86
L. Total Unit Cost					1,829.11

UNIT COST DERIVATION FOR PORTLAND CEMENT

TOTAL QUANTITY REQUIREMENTS FOR PORTLAND CEMENT

DESCRIPTION	QUANTITY (Bags)
Structural Concrete, fc" = 27.58 MPA	8,030.00
Elastomeric Bearing Pad	0.00
Grouted Riprap, Class "A"	1,224.00
Construction of Field Office for the Engineer	220.00
T O T A L	9,474.00

Quantity = 9,474.00 Bags

Delivery Charge = P 0.120 / bag / km.

S I T E	HAULING DISTANCE
Zamboanga DEL Norte 1ST DEO	10.00
PROJECT SITE	

3

*Average hauling distance from Source to assumed Stockpiling area :

say 10.00 km.

Delivery Charge = P 0.120 x 10.00
= P 1.20 / bag

*Delivery Truck : 9,474.00 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 = $\frac{10.00 \times 60}{30.00}$ = 20.00 mins.

Unloaded running	=	$\frac{10.00 \times 60}{40.00}$	=	15.00 mins.
Loading and Unloading	:	45.00 mins.		
Capacity of Dumptruck	:	8.00 cu.m.		
	:	500.00 bags		
Total Cycle time	:	80.00 mins.		
No. of trips for Dumptruck per day	=	$\frac{8.0 \times 60.00}{80.00}$	=	6.00 say 6.00 trip
Dumptruck daily output	=	500 x 6.00	=	3,000.00 cu.m.
Using (4) Dumptrucks	=	4 x 3000.00	=	12,000.00 cu.m.

1. No. of days for Delivery Truck	=	$\frac{9,474.00}{12,000.00}$	=	0.79 say 0.00 days
2. No. of days for Labor, for unloading	=	complimentary to D. Truck days		= 0.00 days

DELIVERY COST :

9,474.00	- Bags, Portland Cement	@ P	1.20	/ bag	= P	11,368.80
Sub - Total					P	11,368.80

LABOR :

1	- Foreman	@ P	611.92 /day	x	0.00 days	= P	0.00
10	- Laborers, unloading	@ P	342.24 /day	x	0.00 days	= P	0.00
Sub - Total							P 0.00

MATERIALS :

9,474.00	- Bags, Portland Cement	@ P	275.00	/ bag	= P	2,605,350.00
	(Pick-Up Price)					
Sub - Total					P	2,605,350.00

Estimated Quantity		9,474.00 Bags		
Unit Cost	P	276.20 / Bag,	say P	276.20 / Bag
Grand Total	P	2,616,718.80		
Delivery Cost	P	11,368.80		
Labor	P	0.00		
Materials	P	2,605,350.00		