

# COST ESTIMATE

Name of Project: Conc. of Road Public Market To Sampaloc ( Road Concreting, Slope Protection and 2-Barrel Box Culvert )	Roadbed Width:
Project No:	Pavement Width: 5.00 meters
Location: Sampaloc, Talavera, Nueva Ecija	Bridge Width:
Appropriation: P 6,972,068.34	Type of Sub. Structure:
Classification:	Type of Superstructure:
Source of Fund:	No. of Span:
Limits:	No. of Pier:
Net Length: 220.00 Mtrs	Date Started:
	No. of days to Complete: Calendar Days

DESCRIPTION OF WORK TO BE DONE	% OF Total	EQUIPMENT DESCRIPTION/Nos.
Structure Excavation	0.48%	1-Road Grader G710A
Subgrade Preparation	0.73%	1-Concrete Breaker
Embankment	39.00%	1-Vibratory Roller
Aggregate Base Course	4.67%	1-Water Truck
PCCP (0.20m)	18.57%	1-Concrete Mixer
2- Barrel Box Culvert	3.38%	1-Concrete Saw
Construction Health and Safety	0.12%	1-Concrete Vibrator
Project Billboard	0.06%	1- Payloader ( 1.50cu.m), L-80-2c.
COA Project Billboard	0.12%	1- Dumptruck (10cu.m )
Mobilization/Demobilization	1.29%	1- Concrete Sceder
Reinforced Steel Bar, Grade 40	3.38%	1- Backhoe ( 0.80 cu.m )
Structural Concrete Class A	28.21%	
	100.00%	

**ESTIMATED COST OF PROPOSED PROJECT**

Spec's ITEM NO.	DESCRIPTION	QUANTITY	DIRECT COST	
			UNIT COST	TOTAL
103	Structure Excavation(slope protection )	cu.m. 104.98	318.15	33,401.05
104	Embankment	cu.m. 3,300.00	824.02	2,719,265.47
105	Subgrade Preparation	sq.m. 2,200.00	23.05	50,714.05
200	Aggregate Sub-Base Course	cu.m. 369.61	880.20	325,332.02
311	PCCP (0.20m)	sq.m. 1,100.00	1,177.07	1,294,781.79
404	Reinforced Steel Bar, Grade 40	kg 3,272.93	72.04	235,791.45
405	Structural Concrete Class A.	cu.m. 167.64	11,731.98	1,966,748.72
500	Barrel Box Culvert	unit 2.00	118,000.00	236,000.00
SPL1	Construction Health and Safety	L.S. 1.00	8,156.35	8,156.35
SPL2	Project Billboard	L.S. 1.00	3,870.72	3,870.72
SPL3	COA Billboard	L.S. 1.00	8,406.72	8,406.72
SPL4	Mobilization/Demobilization	L.S. 1.00	89,600.00	89,600.00
<b>TOTAL PROJECT COST:</b>				<b>6,972,068.34</b>

BREAKDOWN ESTIMATED EXPENDITURES		% OF Total		
1. Labor	278,423.69	5.44	A. Direct Cost Sub-Total :	5,115,647.98
2. Materials:	4,294,878.89	83.96	B. Pre- Engineering	
3. Rental of Equipment:	542,345.41	10.60	C. O.C.M	535,043.63
Fuel Oil, Spare Parts / Maint. Of Equipment & Maint. Of Equipment			D. Constructor Profit	494,528.89
4. Others.		0.00	E. Vat:	737,247.83
5. Overhead			F. Project Supervision 3.5%:	
			G. B.I.R	
			H. Mob/Demob	89,600.00
6. TOTAL:	5,115,647.98	100.00	I. Total Estimated Cost :	6,972,068.34

Name of Work Item  
 Unit of Measurement  
 Output per hour

105 - Subgrage Preparation  
 2,200.00 Sq.m  
 300.00

Designation	No. of Person	No. of Hours	Hourly Rate	Amount
<b>1. Labor</b>				
a. Construction Foreman	1	1	95.00	95.00
b. Equipment Operator	3	1	69.00	207.00
c. Laborers	4	1	53.00	212.00
Sub Total for 1				514.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
<b>2. Equipment</b>				
a. Motorized Road Grader	1	1	2,173.00	2,173.00
b. Vibratory Roller ( 10 m.t. ),SP56	1	1	1,846.00	1,846.00
c. Water Truck (1,000 gal)	1	0.25	2,450.00	612.50
Sub Total for 2				4,631.50
Total (1+2)				5,145.50
Output per hour = 300.00 sq.m. per hour				
Unit Cost				17.15
Name and Specification	Unit	Quantity	Unit Cost	Amount
<b>3. Materials</b>				
Sub Total for 3				0.00
Unit Direct Cost:				17.15
OCM.			0.10	1.72
Contractor's Profit			0.10	1.72
Vat			0.12	2.47
Total Unit Cost				23.05



**DETAILED UNIT PRICE ANALYSIS ( D U P A )**

Name of Work Item  
Unit of Measurement  
Output per hour

200 - Aggregate Sub-base Course  
369.61 Cu.m  
50.00

Designation	No. of Person	No. of Hours	Hourly Rate	Amount
<b>1. Labor</b>				
a. Construction Foreman	1	1	95.00	95.00
b. Equipment Operator	3	1	69.00	207.00
b. Laborers	4	1	53.00	212.00
Sub Total for 1				514.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
<b>2. Equipment</b>				
a. Motorized road Grader (G710a)	1	1	2,173.00	2,173.00
b. Vibratory Roller ( 10.00 MT ), SP56	1	1	1,846.00	1,846.00
c. Water Truck (1,000 gal)	1	0.25	2,450.00	612.50
Sub Total for 2				4,631.50
Total (1+2)				5,145.50
Output per hour = 50.00 cu.m. per hour				
Unit Cost				102.91
Name and Specification	Unit	Quantity	Unit Cost	Amount
<b>3. Materials</b>				
Aggregate Base Course with 15% shrinkage	cu.m	1.15	480.00	552.00
Sub Total for 3				552.00
Unit Direct Cost				654.91
OCM.				0.10 65.49
Constructor's Profit.				0.10 65.49
Vat				0.12 94.31
Total Unit Cost				880.20

**DETAILED UNIT PRICE ANALYSIS ( DUPA )**

Name of Work Item  
Unit of Measurement  
Output per hour

311 - PCCP (Conventional Method) (thickness = 0.20m)  
1,100.00 Sq.m  
70.00

Designation	No. of Person	No. of Hours	Hourly Rate	Amount
<b>1. Labor</b>				
a. Construction Foreman	1	1	95.00	95.00
b. Skilled Laborers	4	1	69.00	276.00
c. Laborers	12	1	53.00	636.00
Sub Total for 1				1007.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
<b>2. Equipment</b>				
a. Transit Mixer	4	1	1,318.00	5,272.00
b. Concrete Vibrator	2	1	91.00	182.00
c. Batching Plant ( 30 cu.m )	1	1	1,759.00	1,759.00
d. Payloader ( 1.50 cu.m ), 1x80-2c	1	1	1,730.00	1,730.00
e. Concrete Screeder ( 5.5 hp )	1	1	545.00	545.00
f. Water Truck (1,000 gal)	1	1	2,450.00	2,450.00
	1	1	32.50	32.50
h. Bar Cutter Single Phase	1	0.1	219.00	21.90
i. Minor Tools ( 5% of Labor )				50.39
Sub Total for 2				12,042.79
Total (1+2)				13,049.79
Output per /day = 70.00 sq.m. per day				
Unit Cost				186.43
Name and Specification	Unit	Quantity	Unit Cost	Amount
<b>3. Materials</b>				
a. Reinforcing Steel Bars	kgs.	0.39	40.00	15.60
b. Curing Compound	lit.	0.29	80.00	23.20
c. Asphalt Sealant	lit.	0.12	45.00	5.40
d. Forms ( Rental )	l.m.	0.45	54.00	24.30
e. Sand	cu.m.	0.11	420.00	46.20
f. Gravel	cu.m.	0.20	500.00	100.00
g. Cement	bags	1.90	248.00	471.20
h. Concrete Saw ( Diamond Blade 14" )	Pc	0.00017	8,000.00	1.36
I. Pipe Sleeve, 1 1/2" Dia.	L.m.	0.0086	83.00	0.71
j. Grease / Tar.	L.t	0.0056	250.00	1.4
Sub Total for 3				689.37
Unit Direct Cost				875.80
OCM.			0.10	87.58
Contractor's Profit			0.10	87.58
Vat.			0.12	126.12
Total Unit Cost				1,177.07

**DETAILED UNIT PRICE ANALYSIS ( DUPA )**

Name of Work Item  
Unit of Measurement  
Output per day

SPL(1)- Construction Safety And Health  
L.s.  
1.00

Quantity 1.00  
Unit L.s.

Designation	No. of Person	No. of Days	Daily Rate	Amount
1. Labor				
a. First Aider	1	9	480.00	4,320.00
b. Part Time Practitioner	1	2	550.00	1,100.00
Sub Total for 1				5,420.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
2. Equipment				
Sub Total for 2				0.00
Total (1+2)				5,420.00
Output per day				
Unit Cost				
Name and Specification	Unit	Quantity	Unit Cost	Amount
3. Materials				
a. Safety Shoes	manday	52	4.00	209.77
b. Safety Gloves	manday	52	8.00	419.54
c. Safety Helmet	manday	52	0.37	19.40
Sub Total for 3				648.71
Unit Direct Cost				6,068.71
OCM.			0.10	606.87
Contractor's Profit			0.10	606.87
Vat			0.12	873.89
Total Unit Cost				8,156.35

**DETAILED UNIT PRICE ANALYSIS ( DUPA )**

Name of Work Item  
Unit of Measurement  
Output per day

SPL(2) - Project Billboard  
L.s.  
1.00

Quantity 1.00  
Unit L.s.

Designation	No. of Person	No. of Days	Daily Rate	Amount
<b>1. Labor</b>				
a. Construction Foreman	1	1	95.00	95.00
b. Skilled Laborer	1	2	69.00	138.00
c. Laborer	2	2	53.00	212.00
Sub Total for 1				445.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
<b>2. Equipment</b>				
Sub Total for 2				0.00
Total (1+2)				445.00
Output per day	1.00 L.m			
Unit Cost				
Name and Specification	Unit	Quantity	Unit Cost	Amount
<b>3. Materials</b>				
a. Tarpaulin	Sq.m	32.00	40.00	1,280.00
b. Frame ( Ordinary Lumber )	Bd/ft	24.00	45.00	1,080.00
c. CWN Assorted	Kg.	1.00	75.00	75.00
Sub Total for 3				2,435.00
Unit Direct Cost				2,880.00
OCM.			0.10	288.00
Contractor's Profit			0.10	288.00
Vat			0.12	414.72
Total Unit Cost				3,870.72

**DETAILED UNIT PRICE ANALYSIS (DUPA)**

Item No./ Description:  
 Unit of Measurement:  
 Output per manday:

**SPL ( 3 ) COA BILLBOARD**  
 1.00 Pcs  
 1.00

A.	Designation	No. of Person	No. of Hours	Hourly Rate	Amount
	Labor				
	a. Construction Foreman	1	1	95.00	95.00
	b. Skilled Laborer	1	1	69.00	69.00
	c. Laborer	2	1	53.00	106.00
	Sub-Total for A				270.00
B.	Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
	Equipment				
	Sub-Total for B				0.00
C.	Total (A+B)				270.00
D.	Output per hour				1.00 = pcs
E.	Direct Unit Cost (C + D)				270.00
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount
	Materials				
	a. Tarpaulin	sq.ft	64	50.00	3,200.00
	b. Lumber, Braces and Frame ( Cocolumber)	bd.ft	80	25.00	2,000.00
	c. CWN Assorted	kg.	1	75.00	75.00
	d. Marine Plywood	pc.	2	355.00	710.00
	Sub-Total for F				5,985.00
G.	Direct Cost (E+F)				6,255.00
H.	Overhead, Contigencies and Miscellaneous (OCM)				10% of G 625.50
I.	Contractor's Profit (CP)				10% of G 625.50
J.	Value Added Tax (VAT)				12% of (G+H+I) 900.72
K.	Total Unit Cost				(G+H+I+J) 8,406.72

FAR EAST EAGLE CONSTRUCTION & DEVELOPMENT



**DETAILED UNIT PRICE ANALYSIS (DUPA)**

Item No./ Description:  
Unit of Measurement:  
Output per day

**SPL ( 4 ) Mobilization/Demobilization**  
**1.00 L.S**

A.	Designation	NoofPerson	No. of Hours	Hourly Rate	Amount
		Labor			
	Sub-Total for A				0.00
B.	Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
	Equipment				ALL
	a. Pay Loader ( 1.50 Cu.m )	1	1		
	b. Dump Truck ( 10Cu.m )	1	1		
	c. Road Grader G710A.	1	1		
	d. Water Truck ( 1000Gals )	1	1		
	e. Vib Road Roller ( 10M.T ) SP56	1	1		
	f. Concrete Vibrator	1	1		
	g. Bar Cutter, Single Phase.	1	1		
	h. Concrete Screeder.	1	1		
	i. Concrete Mixer.	1	1		
	j. Backhoe (0,80cu.m ).	1	1		
	Sub-Total for B				80,000.00
C.	Total (A+B)				80,000.00
D.	Output per day	1.00			
E.	Direct Unit Cost (C / D)				80,000.00
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount
	Materials				
	Sub-Total for F				0.00
G.	Direct Cost (E+F)				80,000.00
H.	Overhead, Contingencies and Miscellaneous (OCM)				
I.	Contractor's Profit (CP)				
J.	Value Added Tax (VAT)			12% of (G+H+I)	9,600.00
K.	Total Unit Cost			(G+H+I+J)	89,600.00


  
 FAR EAST EAGLE CONSTRUCTION & DEVELOPMENT

**DETAILED UNIT PRICE ANALYSIS ( DUPA )**

Name of Work Item  
Unit of Measurement  
Output per hour

103 - Structure Excavation ( Slope Protection )  
104.98 cu.m  
20.00

Designation	No. of Person	No. of Hours	Hourly Rate	Amount
<b>1. Labor</b>				
a. Construction Foreman	1	1	95.00	95.00
b. Skilled laborer	1	1	69.00	69.00
c. Laborers	3	1	56.00	168.00
Sub Total for 1				332.00
Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
<b>2. Equipment</b>				
a. Dump Truck ( 10.cu.m )	2	1.00	1,420.00	2,840.00
b. Backhoe ( 0.80 cu.m )	1	1.00	1,537.00	1,537.00
Minor Tools ( 10% of Labor )				25.43
Sub Total for 2				4,402.43
Total (1+2)				4,734.43
Output per hour = 0.70 cu.m. per hour				
Unit Cost				236.72
Name and Specification	Unit	Quantity	Unit Cost	Amount
<b>3. Materials</b>				
Sub Total for 3				0.00
Unit Direct Cost				236.72
OCM.			0.10	23.67
Contractor's Profit			0.10	23.67
Vat			0.12	34.09
<b>Total Unit Cost</b>				<b>318.15</b>

**DETAILED UNIT PRICE ANALYSIS (DUPA)**

Item No./ Description: **405** Structural Concrete Class A ( Slope Protection )  
 Unit of Measurement: **167.64** Cu.m  
 Output per manday: **1.40**

A.	Designation	No. of Person	No. of Hours	Hourly Rate	Amount
	Labor				
	a. Construction Foreman	1	1	95.00	95.00
	b. Skilled Laborer	4	1	69.00	276.00
	c. Laborer	8	1	53.00	424.00
	Installation / Removal of Formworks				
	d. Skilled Laborer	4	1	69.00	276.00
	e. Laborer	8	1	53.00	424.00
	Sub-Total for A				1,495.00
B.	Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
	Equipment				
	a. One Bagger Mixer	1	1	172.00	172.00
	b. Concrete Vibrator	1	1	91.00	91.00
	c. Water Truck ( 1000 gal. )	1	0.10	2,450.00	245.00
	Minor Tools ( 5% of Labor )				74.81
	Sub-Total for B				582.81
C.	Total (A+B)				2,077.81
D.	Output per hour				1.40 cu.m
E.	Direct Unit Cost (C + D)				1,484.15
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount
	Materials				
	a. Lumber, Good-4 uses	sq.ft	70.00	45.00	3,150.00
	b. Marine Plywood (1/2" x 4' x 8' )-4 uses	pc.	1.60	670.00	1,072.00
	c. CWN Assorted ( 1kg/100bd.ft.of Lumber )	kg.	0.70	60.00	42.00
	d. Cement	bag	9.50	248.00	2,356.00
	e. Sand	cu.m	0.50	370.00	185.00
	f. Gravel	cu.m	1.00	440.00	440.00
	Sub-Total for F				7,245.00
G.	Direct Cost (E+F)				8,729.15
H.	Overhead, Contingencies and Miscellaneous (OCM)				10% of G
					872.92
I.	Contractor's Profit (CP)				10% of G
					872.92
J.	Value Added Tax (VAT)				12% of (G+H+I)
					1,257.00
K.	Total Unit Cost				(G+H+I+J)
					11,731.98

FAR EAST EAGLE CONSTRUCTION DEVELOPMENT

**DETAILED UNIT PRICE ANALYSIS (DUPA)**

Item No./ Description: **404 Reinforced Steel Bar, (Slope Protection )**  
 Unit of Measurement: **3,272.93 kg.**  
 Output per manday: **180.00**

A.	Designation	No. of Person	No. of Hours	Hourly Rate	Amount
	Labor				
	a. Construction Foreman	1	1	95.00	95.00
	b. Skilled Laborer	2	1	69.00	138.00
	c. Laborer	8	1	53.00	424.00
	Sub-Total for A				657.00
B.	Name and Capacity	No. of Units	No. of Hours	Hourly Rate	Amount
	Equipment				
	a. Bar Cutter	1	0.50	219.00	109.50
	b. Bar Bender	1	0.50	315.00	157.50
	c. Cargo Truck ( 10T, 270 Hp )	1	0.15	1,212.00	181.80
	Sub-Total for B				448.80
C.	Total (A+B)				1,105.80
D.	Output per hour	180.00 kg.			
E.	Direct Unit Cost (C + D)				6.14
F.	Name and Specification	Unit	Quantity	Unit Cost	Amount
	Materials				
	a. Tie Wire ( 2% of RSB )	kg.	0.02	60.00	1.26
	b. Reinforced Steel Bar. ( w/ 5% wastage )	kg.	1.05	44.00	46.20
	Sub-Total for F				47.46
G.	Direct Cost (E+F)				53.60
H.	Overhead, Contingencies and Miscellaneous (OCM)			10% of G	5.36
I.	Contractor's Profit (CP)			10% of G	5.36
J.	Value Added Tax (VAT)			12% of (G+H+I)	7.72
K.	Total Unit Cost			(G+H+I+J)	72.04

FAR EAST EAGLE CONSTRUCTION & DEVELOPMENT

### BACK-UP COMPUTATION

LENGTH      220.00 Ln/m  
 WIDTH        5.00 m  
 THK           0.20 m

**AREA OF CONCRETE PAVEMENT:**

Area=            220.00      5.00      )      =      1,100.00 sq.m.  
 total area :      1,100.00 sq.m.

**Item 000 - Breaking of PCCP**

Area=            220.00      5.00      )      =      1,100.00 sq.m.  
 total Area :      1,100.00 sq.m.

**Item 105 - Sub - Grade Preparation**

Area=            220.00      10.00     )      =      2,200.00 sq.m.  
 total Area :      2,200.00 sq.m.

**Item 104 - Embankment**

Vol: roadbed=      220.00      10.00      1.50     )      =      3,300.00 cu.m.  
 total vol :      3,300.00 cu.m.

**Item 201 - Aggregate Sub- Base Coarse**

Vol: Roadbed=      220.00      5.00      0.34     )      =      369.61 cu.m.  
 total vol :      369.61 cu.m.

**Item 311 - Portland Cement Concrete Pavement**

Area=            220.00      5.00      )      =      1,100.00 sq.m.  
 total area :      1,100.00 sq.m.

**Item 103 - Structure Excavation ( Slope Protection )**

440.00      0.10      0.24      )      =      104.98 cu.m.  
 total ;      104.98 cu.m.

**Item 405 - Structure Concrete Class A.**

440.00      0.20      0.38      )      =      167.64 cu.m.  
 total ;      167.64 cu.m.

**Item 404 - Reinforced Steel Bar, Grade 40 ( slope ).**

2,938.00      1.00      1.11      )      =      3,272.93 kg  
 total ;      3,272.93 kg

**Item 500 - 2- Barrel Box Culvert**

set                    per unit  
 1.00                   118,000.00     )      =      118,000.00 Ln.m  
 total area :      118,000.00 Ln.m

  
 BAR EAST EAGLE CONSTRUCTION & DEVELOPMENT