

Republika ng Pilipinas
PAMBANSANG PANGASIWAAN NG PATUBIG
(National Irrigation Administration)
Lungsod ng Quezon

MC No. 54 s. 1990

MEMORANDUM CIRCULAR

TO : Assistant Administrators; Department Managers; Regional Irrigation Managers; Operations Managers; Project Managers; Provincial Irrigation Engineers; Irrigation Superintendents; Project Engineers; and all other concerned

SUBJECT : Preparation of Agency Estimates & Unit Price Guiding Rate for various Civil Works Pay Items Involving Local and "PacQUIAO" Contracts

In line with the policy of the government to decentralize various government functions and the Agency's thrust to facilitate procurement of local minor and "pacQUIAO" contracts, henceforth, Field Offices shall be responsible in preparing Agency Estimates for all local minor and "pacQUIAO" contracts under their respective jurisdictions.

The Agency Estimates to be prepared by the Field Offices shall initially be the direct costs of the contract works including the applicable taxes, taking into consideration current prices of construction materials and supplies, labor and equipment, and the most effective construction methods, and procedures, and choice of equipment.

The regional/project office PBAC Chairman and the regular members shall jointly determine the percentage mark-up for (a) indirect costs (overhead, contingencies, miscellaneous (OCM) and (b) profit, taking into consideration the project location, site condition and the market situation during the call for bids. This mark-up shall be added to the estimates of the direct costs and applicable taxes earlier prepared to generate the Agency Estimates, which shall be approved by the Regional/Project Manager concerned. The mark-up shall be within the following ranges:

ESTIMATED DIRECT COST (EDC)	INDIRECT COST/MARK-UP			TOTAL INDIRECT COST/MARK-UP
	OCM AS % of EDC	PROFIT AS % of EDC	MOB/DEMOB % of EDC	
"PacQUIAO"				
and LMC				
up to				
P500,000	10 - 12	10 - 12	1 - 2	21 - 26
Local Minor				
Contracts				
above				
P500,000 up				
to P 5 M	10 - 12	9 - 11	1 - 2	20 - 25

To accelerate the preparation and evaluation of the Agency Estimates, and for the guidance of all concerned, Attachment "A" shows the list of pay items on civil works for local minor and "pacquiao" contracts with the corresponding current unit price to be adopted as the guiding rate for the Agency Estimates. These unit prices limit, however, may change from time to time whenever there is an abrupt increase in prices of construction materials, equipment, oil and labor to which the Regional/Project Offices shall correspondingly be issued new unit price guide. These unit prices are applicable and effective immediately up to such time that you are furnished new unit price guide by the Central Office.

Pursuant to PD 1594, the Approved Agency Estimates (AAE) shall be confidential and be opened only on the day of the bidding after it has been determined that there are at least two competing bidders. The confidentiality and integrity of the AAE shall rest with the Regional/Project Manager and the PBAC members who are empowered to review/amend the direct costs as found necessary.

Concomitant to this, the approval of authority to undertake works thru "pacquiao" contract is hereby delegated to the RIM/OM/PM concerned. However, the authority to undertake works thru local minor contract shall, as usual, be secured from the Administrator thru the Assistant Administrator concerned in accordance with the existing MC No. 006 series of 1989.

Provisions of existing Memorandum Circulars inconsistent herewith are hereby repealed/revoked accordingly.

This Memorandum Order shall take effect immediately.

(SGD.) JOSE B. DEL ROSARIO, JR.
Administrator

Date signed 07 August 1990

UNIT PRICE CEILING

ITEMS OF WORK	UNIT	UNIT COST CEILING
I. EARTHWORKS		
1. CLEARING & GRUBBING		
1-1 Dense vegetation (1480 trees/ha or more)	sq.m	P 12.00
1-2 Medium vegetation (990-1480 trees/ha.)	sq.m	8.00
1-3 Light vegetation (less than 990 trees/ha)	sq.m	4.00
1-4 No vegetation	sq.m	2.00
2. CANAL EXCAVATION		
2-1 Common (Manual)	cu.m	34.40
2-2 Common (Using dozer & materials for disposal	cu.m	15.70
2-3 Common (Using dozer & excavated materials to be used for Embankment within 200 m FHD	cu.m	24.40
2-4 Common (Using Backhoe	cu.m	15.50
2-5 Bouldery	cu.m	54.90
2-6 Indurated	cu.m	52.70
2-7 Rock	cu.m	280.00
3. STRUCTURE EXCAVATION		
3-1 Canal Structures Common (manual)	cu.m	55.00
3-2 Canal Structures (mech)	cu.m	22.40
3-3 Dam (common)	cu.m	43.10
3-4 Bouldery	cu.m	60.40
3-5 Indurated	cu.m	81.30
3-6 Rock	cu.m	288.70
4. STRUCTURE BACKFILL		
4-1 Canal Structures (manual)	cu.m	36.00
4-2 Canal Structures (mech)	cu.m	19.40
4-3 Dam	cu.m	37.90

ITEMS OF WORK		UNIT	UNIT COST CEILING
5. ROAD SURFACING MATERIALS			
5-1	Quarrying, Loading, Spreading, Watering & Compaction	cu.m	P 39.10
5-2	Hauling		
	AHD = 1 km.	cu.m	14.60
	AHD = 3 km.	cu.m	23.00
	AHD = 5 km.	cu.m	33.00
	AHD = 7 km.	cu.m	43.00
	AHD = 9 km.	cu.m	53.00
	AHD = 11 km.	cu.m	63.00
	AHD = 13 km.	cu.m	73.00
	AHD = 15 km.	cu.m	83.00
	AHD = 17 km.	cu.m	93.00
	AHD = 19 km.	cu.m	103.00
	AHD = 21 km.	cu.m	113.00
	AHD = 23 km.	cu.m	123.00
	AHD = 25 km.	cu.m	133.00
	AHD = 30 km.	cu.m	158.00
	AHD = 40 km.	cu.m	208.00
	AHD = 50 km.	cu.m	258.00
	AHD = 60 km.	cu.m	308.00
	AHD = 70 km.	cu.m	358.00
	AHD = 80 km.	cu.m	408.00
	AHD = 90 km.	cu.m	458.00
	AHD = 100 km.	cu.m	508.00
6. EMBANKMENT CONSTRUCTION AND COMPACTION			
6-1	Spreading, watering and Compaction	cu.m	17.05
6-2	Borrow Materials at Quarry, and Load.	cu.m	24.10
6-3	Hauling		
	AHD = 1 km.	cu.m	17.75
	AHD = 2 km.	cu.m	22.75
	AHD = 3 km.	cu.m	29.70
	AHD = 4 km.	cu.m	36.65
	AHD = 5 km.	cu.m	43.60
	AHD = 6 km.	cu.m	50.55
	AHD = 7 km.	cu.m	57.50
	AHD = 8 km.	cu.m	64.40
	AHD = 9 km.	cu.m	71.35
	AHD = 10 km.	cu.m	78.30
	AHD = 11 km.	cu.m	85.25
	AHD = 12 km.	cu.m	92.20
	AHD = 13 km.	cu.m	99.15
	AHD = 14 km.	cu.m	106.10
	AHD = 15 km.	cu.m	113.05

ITEMS OF WORK	UNIT	UNIT COST CEILING
7. SIDE BORROW	cu.m	21.95
8. OVERHAUL for Embankment		
AHD = 1 km.	cu.m	24.95
AHD = 2 km.	cu.m	29.95
AHD = 3 km.	cu.m	36.90
AHD = 4 km.	cu.m	43.85
AHD = 5 km.	cu.m	50.80
9. OVERHAUL for Waste		
AHD = 1 km.	cu.m	24.10
AHD = 2 km.	cu.m	28.80
AHD = 3 km.	cu.m	35.25
AHD = 4 km.	cu.m	41.75
AHD = 5 km.	cu.m	48.25
10. GRAVEL BLANKET	cu.m	55.00 + 1.31G
11. FILTER DRAIN	cu.m	110.00 + 1.31G
12. BOULDER RIPRAP	cu.m	160.00+1.25B+1.25G

Where:

G = delivered price of gravel at site per cu. m.

S = delivered price of sand at site per cu. m.

B = delivered price of boulder at site per cu. m.

It is the responsibility of the Regional/Project Manager to designate the most economical quarry, borrow and disposal areas taking into consideration the suitability of the materials in accordance with the required specification and the interest of the government.

ITEMS OF WORK	UNIT	UNIT COST CEILING
III. CONCRETING WORKS		
13. 3000 PSI CONCRETE		
13-1 Canal Structures	cu.m	$761.32 + 11.25C + 0.625S + 1.25G + 1.25P + 31.25L$
13-2 Bridge Structures	cu.m	$687.67 + 11.25C + 0.625S + 1.25G + 0.94P + 75.00L$
13-3 Dam Structures	cu.m	$601.34 + 11.25C + 0.625S + 1.25G + 0.50P + 25.00L$
14. 2400 PSI CONCRETE		
14-1 Dam Structures	cu.m	$404.49 + 10.00C + 0.625S + 1.25G + 0.125P + 11.50L$
14-2 Canal Lining	cu.m	$421.40 + 10.00C + 0.625S + 1.25G + 6.25L$
III - MASONRY WORKS		
15. RUBBLE MASONRY	cu.m	$257.80 + 5.62C + 0.310S + 0.625G + 1.19P + 15L$
16. GROUTED RIPRAP	cu.m	$284.09 + 5.25C + 0.440S + 0.125G + 1.250B$

Where:

- C = Delivered price of cement at site per bag
- S = Delivered price of sand at site per cu.m
- G = Delivered price of gravel at site per cu.m
- P = Delivered price of 1/2" plywood at site per pc.
- L = Delivered price of lumber at site per board foot
- B = Delivered price of boulder at site per cu.m

Example:

Determine the unit cost ceiling of 3,000 PSI concrete for canal structure using the current delivered cost of the following materials:

- Cement = P 100.00 per bag
- Sand = 150.00 per cu.m
- Gravel = 200.00 per cu.m
- 1/2" Plywood = 300.00 per pc.
- Lumber = 12.00 per bdf.

$$\begin{aligned} \text{Unit cost ceiling} &= P 761.32 + 11.25(100) + 0.625(150) + 1.25(200) + \\ &\quad 1.25(300) + 31.25(12) \\ &= P 2980.07 \text{ per cu. m.} \end{aligned}$$

If cement is to be supplied by NIA, then the value of C in the formula is equal to zero.

ITEMS OF WORK	UNIT	UNIT COST CEILING
IV - PIPE WORKS		
16. SUPPLY AND DELIVERY		
16-1 18" Dia. Reinf. Conc	pc.	1.25Rcp
16-2 24" Dia. RCP	pc.	1.25Rcp
16-3 36" Dia. RCP	pc.	1.25Rcp
16-4 42" Dia. RCP	pc.	1.25Rcp
17. INSTALLATION		
17-1 18" Dia. Reinf. Conc	pc.	30.61 + 0.49C + 0.025S + 0.050R + 4.56R + 3L
17-2 24" Dia. RCP	pc.	51.30 + 0.81C + 0.044S + 0.870R + 5.65R + 4L
17-3 36" Dia. RCP	pc.	75.51 + 1.19C + 0.062S + 0.125R + 7.51R + 6L
17-4 42" Dia. RCP	pc.	89.76 + 1.41C + 0.075S + 0.157R + 8.49R + 7L

Where:

C = Delivered price of cement at site per bag

S = Delivered price of sand at site per cu.yd.

G = Delivered price of gravel at site per cu.yd.

R = Delivered price of reinforcing bars at site per kilo

L = Delivered price of lumber at site per board foot

Rcp = Delivered price of reinforce concrete pipe at site per piece.

ITEMS OF WORK	UNIT	UNIT COST CEILING
IV - METAL WORKS AND MISC. WORKS		
18. REINFORCING STEEL BARS		
18-1 Furnish & Stockpile	kg.	1.25R
18-2 Cut, bend & place	kg.	3.20
19. RUBBER WATERSTOP		
19-1 15 cm waterstop	l.m.	9.16 + 1.25W
19-2 23 cm waterstop	l.m.	11.46 + 1.25W
20. ASPHALT SEALANT		
	gal.	71.87 + 1.25A
21. JOINT FILLER		
	sq.m.	38.75 + 1.25J
22. BEARING PAD		
	sq.m.	77.50 + 1.25Bp
23. G. I. PIPE		
23-1 8 cm. dia.	l.m.	19.37 + 1.25Gi
23-2 10 cm. dia.	l.m.	24.22 + 1.25Gi

ITEMS OF WORK	UNIT	UNIT COST CEILING
24. PVC PIPE		
24-1 5 cm dia.	1.2	6.46 + 1.25Pvc
24-2 10 cm dia.	1.2	7.69 + 1.25Pvc
25. CONCRETE DEMOLITION	1 cu.m	280.00
26. BEARING PLATE	1 assy	77.50 + 1.25Bf

Where:

- R = Delivered price of reinforcing steel bars at site per kilo
- W = Delivered price of rubber waterstop at site per linear meter
- A = Delivered price of asphalt sealant at site per gallon.
- R = Delivered price of reinforcing bars at site per kilo
- Pvc = Delivered price of PVC at site per linear meter.
- J = Delivered price of joint filler at site per square meter.
- Bp = Delivered price of bearing pad at site per square meter.
- Bf = Delivered price of bearing plate at site per assembly.
- Bf = Delivered price of Bf pipes at site per linear meter.

Note:

The pricing was based on the following:

- a) Materials are in accordance with NIA standard technical specifications.
- b) Equipment Rental used in the derivation is the 1987 ACEI operated rental rates without reduction.
- c) Labor rates used in the derivation is the latest labor rates in the private sector.