



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY
MANILA

03 April 1990

DEPARTMENT ORDER

NO. **80**

SERIES OF 1990 **7m 410**

XXXXXXXXXXXXXXXXXXXX

SUBJECT : Inclusion of the Minimum Materials
Testing Equipment in the Pre-
qualification of Contractors.

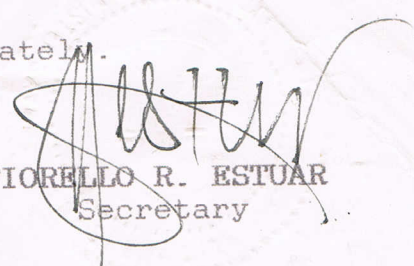
In consonance with PD 1594 and its Implementing Rules and Regulations as Amended 13 April 1988, relative to the prequalification of contractors, and supplementary to Department Order No. 36, series of 1987, regarding minimum equipment requirements, henceforth, the evaluation of the contractor's technical capability and financial capacity by the Prequalification, Bids and Awards Committee shall include the minimum materials testing equipment to effectively ensure the incorporation of the right quality of materials in the projects.

This minimum materials testing equipment requirement shall be on a "per contractor" basis, and not on a "per project" basis, i.e., the equipment may be used to service several on-going projects of the contractors.

Annexes 1, 2 and 3 present the list of the Minimum Materials Testing Equipment for Small, Medium and Large Contractors, respectively, as categorized under Department Order No. 41, Series of 1987, which will form part of the evaluation of the Contractor's capability.

As such, the list of major materials testing equipment in running condition owned by Contractor, supported with proofs of ownership, shall be added under Item 2 (Equipment) of the Technical Aspects, as indicated in the prescribed format for the Contractor's Confidential Prequalification Statement (Phase I).

This order shall take effect immediately.


FIORELLO R. ESTUAR
Secretary

Attachment : As stated.

MINIMUM MATERIALS TESTING EQUIPMENT
FOR SMALL CONTRACTORS

ITEM NO.	QUANTITY	DESCRIPTION	AMOUNT
1.	1 pc	Sieve, Std., 200 mm diameter, opening 75 mm (3")	760.00
2.	1 pc	-ditto- 63 mm (2 1/2")	780.00
3.	1 pc	-ditto- 50 mm (2")	760.00
4.	1 pc	-ditto- 37.5 mm (1 1/2")	760.00
5.	1 pc	-ditto- 25.0 mm (1")	760.00
6.	1 pc	-ditto- 19.0 mm (3/4")	760.00
7.	1 pc	-ditto- 12.5 mm (1/2")	760.00
8.	1 pc	-ditto- 9.5 mm (3/8")	760.00
9.	1 pc	-ditto- 4.75 mm (No. 4)	760.00
10.	1 pc	-ditto- 2.36 mm (No. 8)	760.00
11.	1 pc	-ditto- 2.00 mm (No. 10)	760.00
12.	1 pc	-ditto- 1.18 mm (No. 16)	760.00
13.	1 pc	-ditto- 0.600 mm (No. 30)	760.00
14.	1 pc	-ditto- 0.425 mm (No. 40)	760.00
15.	1 pc	-ditto- 0.300 mm (No. 50)	760.00
16.	1 pc	-ditto- 0.150 mm (No. 100)	760.00
17.	1 pc	-ditto- 0.075 mm (No. 200)	760.00
18.	1 pc	Pan, brass, 200 mm dia. x 50 mm deep	345.00
19.	1 pc	Cover, brass, sieve	230.00
20.	1 pc	Brush, fine sieve	46.00
21.	1 pc	Brush, wire, sieve	40.00
22.	1 pc	Mortar & Pestle	351.00
23.	1 set	Liquid Limit Test Set, consisting of: 1 - Liquid Limit Device 1 - Mixing dish 1 - Spatula, flexible 1 - Graduated Cylinder, glass, 100 ml 24 - Moisture Content can, 60 ml, tin	2,940.00
24.	1 pc	Plate, Plastic Limit	216.00
25.	1 pc	Hammer, Modified Compaction	1,185.00
26.	1 pc	Mold, Compaction, 152.4 mm diameter x 116.4 mm height	925.00
27.	12 pcs	Moisture Content can, 225 ml, tin	360.00
28.	1 set	field Density Test Set, consisting of: 1 - Sand Density Cone 1 - Jug, Glass or Plastic, 4-L capacity 1 - Density Plate 1 - Straight Edge 1 - Spoon 1 - 25 mm Chisel, Steel 1 - 4-L Field can 1 - Mallet, rubber 1 - Scoop, sand	2,740.00
29.	1 unit	Balance, Triple Beam, 311 g cap., 0.01 g sensitivity	3,150.00
30.	1 unit	Balance, Triple Beam, 2610 g cap., 0.1 g sensitivity	2,700.00

ITEM NO.	QUANTITY	D E S C R I P T I O N	AMOUNT
31.	1 unit	Balance, Heavy duty solution, 20 kg cap., 1 g sensitivity	18,895.00
32.	1 set	Auger, Post Hole, with two - m extension	500.00
33.	1 pc	Cylinder, glass, double graduated, 500 ml cap.	250.00
34.	6 pcs	Bowl, mixing, 250 mm dia. x 90 mm high	1,740.00
35.	1 pc	Pan, square, G.I. 600 mm x 600 mm x 75 mm	800.00
36.	1 pc	Spade or Shovel	210.00
37.	1 pc	Pickaxe	500.00
38.	1 pc	Crowbar	500.00
39.	6 pcs	Mold, Steel, cylinder, 150 mm x 300 mm	8,580.00
40.	6 pcs	Mold, Steel Beam, 150 mm x 150 mm x 500 mm	24,900.00
41.	1 set	Slump Cone, complete with base and tamping rod and Trowel, triangular or rectangular blade, 90 mm x 180 mm	2,920.00
42.	1 pc	Thermometer, Metal, dial type, 0-250 C	500.00
43.	1 pc	Concrete Measure 0.014 cu.m. cap. (1/2 cu.ft.)	585.00
44.	1 pc	Straight Edge, Steel 300 mm long	135.00
45.	1 unit	Concrete Mixer, portable	9,880.00
Total Estimated Cost of Equipment - - - - -			P 96,823.00 vvvvvvvvvvvv

MINIMUM MATERIALS TESTING EQUIPMENT
FOR MEDIUM CONTRACTORS

ITEM NO.	QUANTITY	DESCRIPTION	AMOUNT
1.	1 pc	Sieve, Std., 200 mm diameter, opening 75 mm (3")	760.00
2.	1 pc	-ditto- 63 mm (2 1/2")	760.00
3.	1 pc	-ditto- 50 mm (2")	760.00
4.	1 pc	-ditto- 37.5 mm (1 1/2")	760.00
5.	1 pc	-ditto- 25.0 mm (1")	760.00
6.	1 pc	-ditto- 19.0 mm (3/4")	760.00
7.	1 pc	-ditto- 12.5 mm (1/2")	760.00
8.	1 pc	-ditto- 9.5 mm (3/8")	760.00
9.	1 pc	-ditto- 4.75 mm (No. 4)	760.00
10.	1 pc	-ditto- 2.36 mm (No. 8)	760.00
11.	1 pc	-ditto- 2.00 mm (No. 10)	760.00
12.	1 pc	-ditto- 1.18 mm (No. 16)	760.00
13.	1 pc	-ditto- 0.600 mm (No. 30)	760.00
14.	1 pc	-ditto- 0.425 mm (No. 40)	760.00
15.	1 pc	-ditto- 0.300 mm (No. 50)	760.00
16.	1 pc	-ditto- 0.150 mm (No. 100)	760.00
17.	1 pc	-ditto- 0.075 mm (No. 200)	760.00
18.	1 pc	Pan, brass, 200 mm dia. x 50 mm deep	345.00
19.	1 pc	Cover, brass, sieve	230.00
20.	1 pc	Brush, fine sieve	46.00
21.	1 pc	Brush, wire, sieve	40.00
22.	1 pc	Balance, Heavy duty solution 20 kg cap. 1 g sensitivity	16,895.00
23.	1 pc	Mortar, soil, porcelain, 125 mm dia.	
24.	1 pc	Pestle, soil, rubber tip	351.00
25.	1 set	Liquid Limit Test Set, consisting of: 1 - Liquid Limit Device 1 - Mixing dish 1 - Spatula, flexible 1 - Graduated Cylinder, glass 100 ml 12 - Moisture Content can, 60 ml, tin	2,940.00
26.	1 pc	Plate, Plastic Limit	216.00
27.	1 unit	Balance, Triple Beam, 311 g cap., 0.01 g sensitivity	3,150.00
28.	1 unit	Balance, Triple Beam, 2610 g cap., 0.01 g sensitivity	2,700.00
29.	1 pc	Hammer, Modified Compaction	1,185.00
30.	1 pc	Mold, Compaction, 101.6 mm diameter x 116.4 mm height	925.00
31.	12 pcs	Moisture Content can, 225 ml, tin	360.00
32.	1 pc	Concrete Measure, 0.014 cu.m. cap. (1/2 cu.ft.)	565.00
33.	1 pc	Straight Edge, Steel 300 mm long	135.00

ITEM NO.	QUANTITY	DESCRIPTION	AMOUNT
34.	1 set	Field Density Test Set, consisting of: 1 - Sand Density Cone 1 - Jug, Glass or Plastic, 4-L capacity 1 - Density Plate 1 - Straight Edge 1 - Spoon 1 - 25 mm Chisel, Steel 1 - 4-L Field can 1 - Mallet, rubber 1 - Scoop, sand	2,740.00
35.	1 set	Auger, Post Hole, with two - m extension	500.00
36.	1 pc	Cylinder, glass, double graduated, 500 ml cap.	250.00
37.	3 pcs	Bowl, mixing, 250 mm dia. x 90 mm high	870.00
38.	3 pcs	Pan, square, G.I. 600 mm x 600 mm x 75 mm	1,800.00
39.	1 pc	Spade or Shovel	210.00
40.	1 pc	Pickaxe	500.00
41.	1 pc	Crowbar	500.00
42.	1 unit	Portable concrete mixer	9,880.00
43.	1 set	Slump Test Set, consisting of: 1 - Slump Cone, complete with base and tamping rod 1 - Trowel, triangular or rectangular blade 90 mm x 180 mm 1 - Scale	2,920.00
44.	6 pcs	Mold, Steel, cylinder, 150 mm x 300 mm	8,580.00
45.	6 pcs	Mold, Steel Beam, 150 mm x 150 mm x 500 mm	24,900.00
46.	1 set	Vertical Capping Set, consisting of: 1 - Vertical Cylinder capper with capping plate, 150 mm dia. 1 - Capping compound warmer pot, 4-L cap. 1 - Capping laddle 1 - Carbon capping compound	12,910.00
47.	1 pc	Thermometer, Metal, dial type, 0-250 C	500.00
Total Estimated Cost of Equipment - - - - -			P110,063.00 vvvvvvvvvvvv

MINIMUM MATERIALS TESTING EQUIPMENT
FOR LARGE CONTRACTORS

ITEM NO.	QUANTITY	DESCRIPTION	AMOUNT
1.	1 pc	Sieve, Std., 200 mm diameter, opening 75 mm (3")	760.00
2.	1 pc	-ditto- 63 mm (2 1/2")	760.00
3.	1 pc	-ditto- 50 mm (2")	760.00
4.	1 pc	-ditto- 37.5 mm (1 1/2")	760.00
5.	1 pc	-ditto- 25.0 mm (1")	760.00
6.	1 pc	-ditto- 19.0 mm (3/4")	760.00
7.	1 pc	-ditto- 12.5 mm (1/2")	760.00
8.	1 pc	-ditto- 9.5 mm (3/8")	760.00
9.	1 pc	-ditto- 4.75 mm (No. 4)	760.00
10.	1 pc	-ditto- 2.36 mm (No. 8)	760.00
11.	1 pc	-ditto- 2.00 mm (No. 10)	760.00
12.	1 pc	-ditto- 1.18 mm (No. 16)	760.00
13.	1 pc	-ditto- 0.600 mm (No. 30)	760.00
14.	1 pc	-ditto- 0.425 mm (No. 40)	760.00
15.	1 pc	-ditto- 0.300 mm (No. 50)	760.00
16.	1 pc	-ditto- 0.150 mm (No. 100)	760.00
17.	1 pc	-ditto- 0.075 mm (No. 200)	760.00
18.	1 pc	Pan, brass, 200 mm dia. x 50 mm deep	345.00
19.	1 pc	Cover, brass, sieve	230.00
20.	1 pc	Brush, fine sieve	46.00
21.	1 pc	Brush, wire, sieve	40.00
22.	1 pc	Balance, Heavy duty solution 20 kg cap. 1 g sensitivity	16,895.00
23.	1 pc	Mortar, soil, porcelain, 125 mm dia.	
24.	1 pc	Pestle, soil, rubber tip	351.00
25.	1 set	Liquid Limit Test Set, consisting of: 1 - Liquid Limit Device 1 - Mixing dish 1 - Spatula, flexible 1 - Graduated Cylinder, glass, 100 ml 12 - Moisture Content can, 60 ml, tin	2,940.00
26.	1 pc	Plate, Plastic Limit	216.00
27.	1 unit	Balance, Triple Beam, 311 g cap., 0.01 g sensitivity	3,150.00
28.	1 unit	Balance, Triple Beam, 2610 g cap., 0.01 g sensitivity	2,700.00
29.	1 pc	Hammer, Modified Compaction	1,185.00
30.	1 pc	Mold, Compaction, 101.6 mm diameter x 116.4 mm height	925.00
31.	12 pcs	Moisture Content can, 225 ml, tin	360.00
32.	1 pc	Concrete Measure, 0.014 cu.m. cap. (1/2 cu.ft.)	565.00
33.	1 pc	Straight Edge, Steel 300 mm long	135.00
34.	1 set	CBR Apparatus complete with accessories (Mechanical)	59,000.00

ITEM NO.	QUANTITY	D E S C R I P T I O N	AMOUNT
35.	1 pc	Volumetric flask 500 ml cap. with stopper	165.00
36.	1 set	Sand Absorption Cone and Tamper	200.00
37.	1 set	Specific Gravity Test Set or Coarse Aggregate, consisting of: 1 - Semi-automatic precision balance 5 kg. cap., 0.1 g sens. 1 - Wire basket	16,566.00
38.	1 unit	Los Angeles Abrasion Machine complete with abrasive steel and #12 sieve	54,000.00
39.	1 set	Field Density Test Set, consisting of: 1 - Sand Density Cone 1 - Jug, Glass or Plastic, 4-L capacity 1 - Density Plate 1 - Straight Edge 1 - Spoon 1 - 25 mm Chisel, Steel 1 - 4-L Field can 1 - Mallet, rubber 1 - Scoop, sand	2,740.00
40.	1 set	Auger, Post Hole, with two - m extension	500.00
41.	1 pc	Cylinder, glass, double graduated, 500 ml cap.	250.00
42.	3 pcs	Bowl, mixing, 250 mm dia. x 90 mm high	870.00
43.	3 pcs	Pan, square, G.I. 600 mm x 600 mm x 75 mm	1,800.00
44.	1 pc	Spade or Shovel	210.00
45.	1 pc	Pickaxe	500.00
46.	1 pc	Crowbar	500.00
47.	1 unit	Oven, field, with temperature control	22,630.00
48.	1 unit	Portable concrete mixer	9,880.00
49.	1 set	Slump Test Set, consisting of: 1 - Slump Cone, complete with base and tamping rod 1 - Trowel, triangular or rectangular blade 90 mm x 180 mm 1 - Scale	2,920.00
50.	12 pcs	Mold, Steel, cylinder, 150 mm x 300 mm	17,160.00
51.	12 pcs	Mold, Steel Beam, 150 mm x 150 mm x 500 mm	49,800.00
52.	1 unit	Compression Machine, portable	90,000.00
53.	1 unit	Concrete Beam Tester, Flexural Machine	75,000.00
54.	1 set	Vertical Capping Set, consisting of: 1 - Vertical Cylinder capper with capping plate, 150 mm dia. 1 - Capping compound warmer pot, 4-L cap. 1 - Capping ladle 1 - Carton capping compound	12,910.00
55.	1 unit	Concrete Core Drilling Machine complete with accessories	40,920.00
56.	1 pc	Thermometer, Metal, dial type, 0-250 C	500.00
57.	1 unit	Extractor, Centrifuge or Reflux, 1500 g cap.	30,000.00
58.	8 L	Carbon Tetrachloride	4,000.00
59.	1 unit	Marshall Stability Apparatus complete with accessories	565.00
Total Estimated Cost of Equipment - - - - -			P607,919.00 vvvvvvvvvvvv