

Procurement of Total Station for Surveying

Bidding Document

December 2020

**GOVERNMENT OF PAKISTAN
MINISTRY OF HOUSING & WORKS**



**FEDERAL GOVERNMENT EMPLOYEES HOUSING
AUTHORITY ISLAMABAD
10-Mauve Area, G-10/4, Islamabad**

To,

All the Bidders

Subject: **PROCUREMENT OF TOTAL STATION**

We extend warm welcome to you and invite you to participate in this bidding process for the procurement of Total Station for surveying purposes. We hope that you will live up to your reputation and provide us state of the art equipment, repair & maintenance, after sale service (in terms parts & software up gradation) calibration services and training to Federal Government Employees Housing Authority Employees. Therefore on submission of proposals/bids by you it shall be deemed that you are in 100% agreement with the contents of Bidding Document. Similarly, all other services and the content contributing to services shall be deemed part of the Bidding process. In the end, we appreciate your participation and hope that you will feed a technically and financially sound Bid to merit consideration by Federal Government Employees Housing Authority.

Director (Planning)

F.G.E. Housing Authority
10-Mauve Area, Sector G-10/4
Islamabad

LETTER OF INVITATION FOR BIDDING PROCESS (LOI)

Dear Participants!

1. INTRODUCTION

- 1.1. Federal Government Employees Housing Authority is established under Federal Government Employees Housing Authority Act, 2020 and is mandated to provide Housing to Federal Government Employees and other specified groups all over Pakistan.
- 1.2. The Authority in Order to carry out various Planning and Development task requires Total Station from general order Suppliers who can provide specified equipment as per mentioned specification in the bidding document.

2. SPECIFICATION OF EQUIPMENT:

Items		Description
Telescope		
Magnification / Resolving power		30x / 2.5"
Others		Length: 171mm (6.7in.), Objective aperture: 45mm (1.8in.) (48mm (1.9in.) for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.) Reticle illumination: 5 brightness levels
Angle Measurement		
Minimum Display		0.5"/1" (0.0001 / 0.0002gon, 0.002 / 0.005mil)
Accuracy (ISO 17123-3:2001)		1"
Dual-axis compensator		Dual-axis liquid tilt sensor, working range: ±6'
Collimation compensation		On/Off (selectable)
Distance measurement		
Laser output*1		Reflectorless mode : Class 3R / Prism/sheet mode : Class 1
Measuring Range (under average conditions*2)	Reflectorless*3	0.3 to 800m (2,620ft.) / Under good conditions*4: 1,000m (3,280ft.)
	Reflective sheet*5*6	RS90N-K: 1.3 to 500m (4.3 to 1,640ft.), RS50N-K: 1.3 to 300m (4.3 to 980ft.), RS10N-K: 1.3 to 100m (4.3 to 320ft.)
	Mini prisms	CP01: 1.3 to 2,500m (4.3 to 8,200ft.), OR1PA: 1.3 to 500m (4.3 to 1,640ft.)
	One prism	1.3 to 5,000m (4.3 to 16,400ft.) / Under good conditions*4 : 6,000m (19,680ft.)

Minimum Display		Fine / Rapid: 0.0001m (0.001ft. / 1/16 in.) / 0.001m (0.005ft. / 1/8 in.) (selectable) Tracking / Road: 0.001m (0.005ft. / 1/8 in.) / 0.01m (0.02ft. / 1/2 in.) (selectable)
Accuracy*2(ISO 17123-4:2001) (D=measuring distance in mm)	Reflectorless*3	(2 + 2ppm x D) mm*8
	Reflective sheet*5*6	(2 + 2ppm x D) mm
	Prism*7	(1.5 + 2ppm x D) mm
Measuring time*4*9	Fine	0.9s (initial 1.5s)
	Rapid	0.6s (initial 1.3s)
	Tracking	0.4s (initial 1.3s)
OS, Interface and Data management		
Operating system		Linux
Display / Keyboard		Graphic LCD, 192 x 80 dots, backlight, contrast adjustment / Alphanumeric keyboard / 28 keys with backlight
Control panel location		On both faces
Trigger key		Yes (right side)
Data storage	Internal memory	Approx. 50,000 points
	Plug-in memory device	USB flash memory (max. 32GB)
Interface		Serial RS-232C, USB2.0 (Type A for USB flash memory)
	Bluetooth modem (option)*10	Bluetooth Class 1.5, Operating range: up to 10m*11
General		
Guide light*12		Green LED (524nm) and Red LED (626nm), Operating range: 1.3 to 150m (4.3 to 490ft.)
Laser-pointer*12		Coaxial red laser using EDM beam
Levels	Graphic	6° (Inner Circle)
	Circular level (on tribrach)	10' / 2mm

Plummet	Optical	Magnification: 3x, Minimum focus: 0.5m (19.7in.) from tribrach bottom
	Laser (option)	Red laser diode (635nm±10nm), Beam accuracy: ≤1.0mm@1.3m, Class 2 laser product
Dust and water protection / Operating temperature		IP66 (IEC 60529:2001) / -20 to +60°C (-4 to +140°F)
Size with handle		183(W)x 181(D)x 348(H)mm
Instrument height		192.5mm from tribrach mounting surface
Weight with battery & tribrach		Approx. 5.3kg (11.7lb)
Power supply		
Battery		Li-ion rechargeable battery BDC70
Operating time (20°C)*13		BDC70: Approx. 28hours*14
Application program		
On board		<ul style="list-style-type: none"> • REM Measurement • 3D Coordinate Measurement • Resection • Stake Out • Topography Observation • Offset Measurement • Missing Line Measurement • Intersection • Surface Area Calculation • Route Surveying • Point to Line
Accessories		
Accessories		<ul style="list-style-type: none"> • Heavy duty Tripod • Battery 02 • Charger dual Battery • Sun Shade • Tool Kit • USB Memory Stick • Reflective Sheets/Stickers • User Manual Soft Copy • Prism set with Heavy Duty Pole.

3. BIDDING PROCESS:

The Bidding process will be carried out in the single stage (two envelope Process) as per PPRA Rules. Technically suited and acceptable bids will be shortlisted in the technical evaluation process. The financial bid of only technically approved bids will be opened.

Note: The Client will be at the liberty to select requisite equipment technically most suited to its specification and requirements if difference in financial bids is minimal.

4. DELIVERY OF EQUIPMENT:

The successful bidder must ensure the delivery of equipment within fifteen (15) days from the issuance of Letter of Acceptance. In case of failure, the bidder must inform the Authority in writing the reasons beyond his control hindering the delivery of equipment. The Contractor shall indicate his delivery approach clearly specifying the requirements for packing, shipping and unpacking of deliverable hardware with any associated/relevant software and its documentation.

The equipment shall remain at the risk and under the physical custody of the bidder until the delivery, testing and taking over of the equipment is completed.

The successful bidder shall ensure that the equipment shall be delivered complete to enable the testing and training to proceed without interruption. If it shall appear to the Client that the equipment has been or are likely to be delayed by reason of incomplete delivery or for any other reasons, he may require the successful bidder at the expense of the bidder to dispatch the missing items of the equipment or suitable replacements thereof to the site of delivery by the fastest available means including air freight.

5. TRAINING:

The successful bidder shall provide training regarding operational and maintenance of the equipment to the officials nominated by the Authority for safe operation of the equipment till the satisfaction of Authority.

6. PAYMENT SCHEDULE:

The payment of the equipment will be made after successful delivery of the equipment. All applicable Government taxes will be deducted at source.

7. CANCELLATION OF BIDDING PROCESS:

The Authority reserves the right to cancel the bidding process at any stage without assigning any reason at its own discretion.

8. TERMS AND CONDITIONS:

- Bidder shall provide 1 year warranty, free services for 1 year of the equipment.
- Bidders with workshops in Rawalpindi/Islamabad shall be preferred.