

# NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED

NESPAK HOUSE: 1-C, Block-N, Model Town Extension, Lahore - 54700, Pakistan



Ref: 4222/025/KY/01/ 1089

Dated: Jan 10, 2025

## TECHNICAL EVALUATION REPORT (As Per Rule 35 of PP Rules, 2004)

1. Name of Procuring Agency: National Engineering Services Pakistan (Pvt.) Limited
2. Method of Procurement: Single stage – two envelope procedure
3. Title of Procurement: Tender for Procurement of Survey Equipment (Lot 1, Lot 2, Lot 3 & Lot 4)
4. Tender Inquiry No.: 4222/025/KY/01/0810 dated November 22, 2024
5. PPRA Ref. No. (TSE): TS552374E
6. Date & Time of Bid Closing: Technical & Financial – 19<sup>th</sup> December, 2024 at 11 00 Hours
7. Date & Time of Bid Opening: Technical & Financial – 19<sup>th</sup> December, 2024 at 11 30 Hours
8. No of Bids Received: Lot-01 (Sr # 01: 06 Bids): Lot-02 (Sr # 01-06: 48 Bids (08 bids per sr no.)); Lot-03 (Sr # 01: 05 Bids); Lot-04 (Sr # 01: 07 Bids & Sr # 02: 04 Bids);
9. Criteria for Bid Evaluation: Technical Compliance based
10. Details of Bid(s) Evaluation: Detail is as under

No.	Name of Bidder	Lot # (Sr. #)	Technical Marks (if applicable)	Rule/Regulation/SBD*/Policy/Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.
1.	Public Surveying Systems	Lot-01 Sr # 01	Non-Compliant	Disqualified
2.	GEO Sciences Solutions	Lot-01 Sr # 01	Non-Compliant	Disqualified
3.	Sunder Trading Company	Lot-01 Sr # 01	Non-Compliant	Disqualified
4.	Asia Geomatics	Lot-01 Sr # 01	Non-Compliant	Disqualified
5.	Sandhu Engineering & Trading Company	Lot-01 Sr # 01	Non-Compliant	Disqualified
6.	Chaudhary Brothers & Co.	Lot-01 Sr # 01	Compliant	Qualified
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 01	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 01	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 01	Compliant	Qualified
4.	Khan Associates	Lot-02 Sr # 01	Compliant	Qualified
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 01	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 01	Compliant	Qualified
7.	HTH Enterprises	Lot-02 Sr # 01	Non-Compliant	Disqualified
8.	AVIA ACROSS	Lot-02 Sr # 01	Compliant	Qualified
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 02	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 02	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 02	Compliant	Qualified
4.	Khan Associates	Lot-02 Sr # 02	Compliant	Qualified
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 02	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 02	Compliant	Qualified
7.	HTH Enterprises	Lot-02 Sr # 02	Non-Compliant	Disqualified
8.	AVIA ACROSS	Lot-02 Sr # 02	Not Quoted	-
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 03	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 03	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 03	Compliant	Qualified

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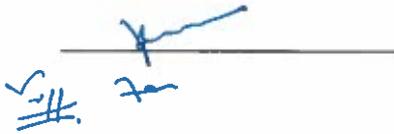
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AUSTRIA

4.	Khan Associates	Lot-02 Sr # 03	Compliant	Qualified
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 03	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 03	Not Quoted	-
7.	HTH Enterprises	Lot-02 Sr # 03	Non-Compliant	Disqualified
8.	AVIA ACROSS	Lot-02 Sr # 03	Compliant	Qualified
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 04	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 04	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 04	Compliant	Qualified
4.	Khan Associates	Lot-02 Sr # 04	Not Quoted	-
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 04	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 04	Compliant	Qualified
7.	HTH Enterprises	Lot-02 Sr # 04	Non-Compliant	Disqualified
8.	AVIA ACROSS	Lot-02 Sr # 04	Compliant	Qualified
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 05	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 05	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 05	Compliant	Qualified
4.	Khan Associates	Lot-02 Sr # 05	Compliant	Qualified
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 05	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 05	Not Quoted	-
7.	HTH Enterprises	Lot-02 Sr # 05	Non-Compliant	Disqualified
8.	AVIA ACROSS	Lot-02 Sr # 05	Compliant	Qualified
1.	AAMSONS Technologies (Pvt) Ltd.	Lot-02 Sr # 06	Compliant	Qualified
2.	Chaudhary Brothers & Co.	Lot-02 Sr # 06	Compliant	Qualified
3.	KBS Enterprises	Lot-02 Sr # 06	Compliant	Qualified
4.	Khan Associates	Lot-02 Sr # 06	Compliant	Qualified
5.	Sandhu Engineering & Trading Company	Lot-02 Sr # 06	Compliant	Qualified
6.	Rafiq & Sons	Lot-02 Sr # 06	Compliant	Qualified
7.	HTH Enterprises	Lot-02 Sr # 06	Not Quoted	-
8.	AVIA ACROSS	Lot-02 Sr # 06	Compliant	Qualified
1.	Rafiq & Sons	Lot-03 Sr # 01	Non-Compliant	Disqualified
2.	Sandhu Engineering & Trading Company	Lot-03 Sr # 01	Non-Compliant	Disqualified
3.	KBS Enterprises	Lot-03 Sr # 01	Compliant	Qualified
4.	Chaudhary Brothers & Co.	Lot-03 Sr # 01	Compliant	Qualified
5.	Public Surveying Systems	Lot-03 Sr # 01	Non-Compliant	Disqualified
1.	Rafiq & Sons	Lot-04 Sr # 01	Non-Compliant	Disqualified
2.	Sandhu Engineering & Trading Company	Lot-04 Sr # 01	Compliant	Qualified
3.	KBS Enterprises	Lot-04 Sr # 01	Compliant	Qualified
4.	Chaudhary Brothers & Co.	Lot-04 Sr # 01	Compliant	Qualified
5.	Public Surveying Systems	Lot-04 Sr # 01	Non-Compliant	Disqualified
6.	Geo Sciences Solutions	Lot-04 Sr # 01	Non-Compliant	Disqualified
7.	Khan Associates	Lot-04 Sr # 01	Compliant	Qualified
1.	Sandhu Engineering & Trading Company	Lot-04 Sr # 02	Compliant	Qualified
2.	KBS Enterprises	Lot-04 Sr # 02	Compliant	Qualified
3.	Chaudhary Brothers & Co.	Lot-04 Sr # 02	Compliant	Qualified
4.	Public Surveying Systems	Lot-04 Sr # 02	Compliant	Qualified



11. Any other additional / supporting information, the procuring agency may like to share: N/A

Signature:

A handwritten signature in blue ink is written over a horizontal line. To the left of the line, there are some additional handwritten marks, possibly initials or a date.

Official Stamp:



National Engineering Services of Pakistan Pvt. Ltd. (NESPak)  
Geotechnical & Geoenvironmental Engineering Division  
PROCUREMENT OF SURVEY EQUIPMENT  
LOT-1 (TOTAL STATION)  
EVALUATION OF BIDDERS (TECHNICAL)

Date: 09-01-2025

Sr.#	Requirement as per Tender		General Specifications				Technical Specifications						Technical Evaluation			
	Items	Qty.	Vendor Name	Bid Security (75% PKR)	GST	NTN	Range (1000m)	Accuracy (1")	USB (60k points/8 GB)	Operating time (20h)	Additional Acc.	Tunnel Application Certificate		Purchase Order/ Certificate		
1	Total Station with 1000m range, Angle Measurement Accuracy 1" Least Count 0.5" (0.5 mmgon), Compensation Quadruple axis compensation (Setting On, Off), Compensation Setting accuracy 0.5", 1", 1.5", Range (90% effective), Flex Point, Pin Point - Power, Pin Point - Ultra - 30 m > 400 m), Accuracy / Measurement time, 2 mm+2 ppm/2 typ. 3 s, Laser dot size, AI 30 m, approx. 7 mm x 10 mm, AI 50 m, approx. 8 mm x 20 mm Extended internal memory, Max. 100,000 fix points, Max. 60,000 measurements, USB memory stick, 8 Gigabyte, Transfer time 1,000 points/second optional Interfaces Serial (band rate 1200 to 115200), USB Type A and mini B, Bluetooth® Wireless, Data formats GSI / DXF / Land XML / CSV / user detachable ASCII format, Magnification 30 x, Keyboard Alpha-numerical keypad, Type Lithium-Ion, Operating time approx. 20 hours), Black and White Display Double Side Display with container and standard accessories.	1	a) Public Surveying Systems	✓	✓	✓	✓	✓	✓	X (Battery is less than 8 hours)	✓	X (Certification is required on client's letter head)	X (Certification is required on client's letter head)	The vendor does not meet the necessary technical specifications.		
			b) GEO Sciences Solutions	✓	✓	✓	X (Range is 500m)	✓	✓	✓	✓	✓	X (No Certification is provided)	X (No Certification is provided)	The vendor does not meet the necessary technical specifications.	
			c) Sunder Trading Company	✓	✓	✓	✓	✓	✓	X (Battery is 8 hours)	✓	✓	✓	✓	The vendor does not meet the necessary technical specifications.	
			d) Asia Geomatics	✓	✓	✓	✓	✓	✓	X (Battery is 24 hours using 3 batteries, while only 2 are provided)	✓	✓	X (Certification of the quoted product is not mentioned)	X (Certification of the quoted product is not mentioned)	The vendor does not meet the necessary technical specifications.	
			e) Sandhu Engineering & Trading Company (SETC)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	X (No Certification is provided)	X (Certification of the quoted product is not mentioned)	The vendor does not meet the necessary technical specifications.
			f) Chaudhary Brothers & Co.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".



EVALUATION COMMITTEE

M. Tanvir Abbas

Dr. Waqar Ahmed

Mrs. Aliqa Ijaz Khan

Representative of Procurement Cell

Representative of Management Division

RECOMMENDATIONS

- (a) The bids were invited through an advertisement in daily newspapers, PPRA and NESPAK websites, as per PPRA rules.
- (b) M/s Chaudhary Brothers & Co. is qualified bidder for Srf 01 (Lot-01). The quoted items may be awarded to lowest bidder after financial evaluation.

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APPROVED BY

*[Handwritten signature in blue ink]*



National Engineering Services of Pakistan Pvt. Ltd. (NESSPAK)  
Geotechnical & Geoenvironmental Engineering Division  
PROCUREMENT OF SURVEY EQUIPMENT  
LOT-2 (DRONE & ACCESSORIES)  
EVALUATION OF BIDDERS (TECHNICAL)

Aircraft Specifications (1/6)

Date: 09-01-2026

Sr.#	Requirement as per Tender	Qty.	General & Technical Specifications (Items-wise)	Bidder's Company						HTH Enterprises	AVIA ACROSS	
				AAWSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Rafiq & Sons			
A)	<b>General Specifications</b>  Aircraft Specifications  Max Flight Time: Approx. 45 minutes Max Flight Speed: 21 m/s (S-mode) Max Transmission Distance: 15 km (FCC) / 8 km (CE) Operating Temperature Range: -10°C to 40°C Wind Resistance: 12 m/s GNSS: GPS + Galileo + BeiDou + GLONASS Camera Specifications: Main Camera (Wide): 4/3 CMOS, 20 MP Mechanical shutter (shutter speed: 1/2000s - 2s) 24mm equivalent focal length ISO range: 100-6400 (manual and auto) 12-bit RAW format support for higher dynamic range in post-processing Maximum image size: 5280 x 3956 Video recording: 4K (3840x2160) 30fps Zoom Camera: 1/2" CMOS, 12 MP Up to 56x Hybrid Zoom (optical and digital combined) Focal length: 162mm RTK Module Precision: Supports centimeter-level positioning Function: Allows for precise mapping and surveying with enhanced accuracy, reducing or eliminating the need for Ground Control Points (GCPs). Supported Signals: GPS, GLONASS, Galileo, and BeiDou Mounting: Detachable and easily mounted to the top of the drone Remote Controller: RC Pro Enterprise Transmission System: Ocu Sync 3 Enterprise Max Transmission Distance: 15 km (FCC) / 8 km (CE) Screen: 5.5-inch 1080p display, 1000 nits brightness Built-in Microphone: For voice commands and communication in certain modes Ports: HDMI, USB-C, microSD slot. Additional 03 Micro SD cards with 128 GB capacity high end read and write speed.  Or equivalent to same specification mentioned above.	1	Bid Security (75k) PKR	✓	✓	✓	✓	✓	✓	✓	✓	
B)		1	GST	Active but late	✓	✓	✓	✓	✓	✓	✓	✓
C)		1	NTN									✓
<b>Technical Evaluation</b>  The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".				Scan copy of Bid Security Cheque. Hence, Dis-qualified.							✓ (Combo has few additional items but additional 128 GB SD card as requested are not mentioned)	



Date: 09-01-2025

**Intelligent Flight Batteries Specifications (2/6)**

Sr.#	Requirement as per Tender		General & Technical Specifications (items-wise)	Bidder's Company						AVIA ACROSS
	Items	Qty.		AAMSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Rafiq & Sons	
2)	<p><b>Intelligent Flight Batteries</b></p> <p>3x Intelligent Flight Batteries. 46 minutes of flight time per battery. Battery Charging Hub. Charges up to 3 batteries in sequence. Car Charger. Allows for battery charging in vehicles. Spare Propellers. Additional propellers for backup. Carrying Case. High-quality storage case for easy transportation. Propeller Guards. To protect the aircraft in tight spaces. USB Cable. For data transfer and charging remote controller. Spare Joysticks. Additional control sticks for the remote.</p> <p><i>Or equivalent to same specification mentioned above.</i></p>	02 sets	✓	✓	✓	✓	✓	✓	Scan copy of Bid Security Cheque. Hence, Dis-qualified.	Not Quoted
<p><b>Technical Evaluation</b></p>				<p>The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".</p>						-

Date: 09-01-2025

**Drone Batteries Specifications (3/6)**

Sr.#	Requirement as per Tender		General & Technical Specifications (items-wise)	Bidder's Company						AVIA ACROSS
	Items	Qty.		AAMSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Rafiq & Sons	
3)	<p><b>Drone Batteries (TB 6S)</b></p> <p>Capacity: 5880 mAh Voltage: 44.76 V Type: Li-ion Energy: 263.2 Wh Weight: Approx. 1.35 kg Compatibility: Mairice 350 RTK &amp; Mairice 300 RTK</p>	20	✓	✓	✓	✓	✓	✓	Scan copy of Bid Security Cheque. Hence, Dis-qualified.	The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".
<p><b>Technical Evaluation</b></p>				<p>The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".</p>						-



Radar Sensor for DJI Matrice 300 RTK Drone Safety Specifications (4/6)

Date: 09-01-2025

Sr.#	Requirement as per Tender		General & Technical Specifications (Items-wise)	Bidder's Company								
	Items	Qty.		AAMSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Rafiq & Sons	HTH Enterprises	AVIA ACROSS	
4)	<b>Radar Sensor for DJI Matrice 300 RTK Drone Safety</b>  Dimensions: 75*75*105.4 mm (without mounting bracket and cables) 336 Weight: 9 IP Rating: IP45 Operating Temperature: -20° to 50°C (-4° to 122° F) Operating Frequency: 24.05-24.25 GHz Power Consumption: 12 W SRRC: <13 dBm MCCMCKCCEFCFCC: <20 dBm (EIRP)		02		✓	✓	✓	Not Quoted	✓	✓ (Radar quantity quoted is One (01) instead of Two (02))	Scan copy of Bid Security Cheque. Hence, Dis-qualified.	✓
<b>Technical Evaluation</b>				The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".								
				The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".								



Lidar Sensor for DJI Matrice 300 RTK Drone Specifications (5/6)

Sr.#	Requirement as per Tender		General & Technical Specifications (items-wise)	Bidder's Company						AVIA ACROSS
	Items	Qty.		AAMSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Rafiq & Sons	
5)	<p><b>Lidar Sensor for DJI Matrice 300 RTK Drone Specification:</b></p> <p>IP Rating: IP54                      Detection Range: 450m @50% reflectivity, 0.4hr                      250m @10% reflectivity, 100 hr                      Point Cloud Rate: Single return: max. 240,000 pts/s                      Multiple returns: max. 1,200,000 pts/s                      System Accuracy: Horizontal: 5 cm @ 150 m                      Vertical: 4 cm @ 150 m                      Ranging Accuracy (RMS 1σ): 2 cm @ 150 m                      Maximum Returns Supported: 5                      Scanning Modes: Non-repetitive scanning pattern, Repetitive scanning pattern                      IMU Update Frequency: 200 Hz                      Sensor: 4/3 CMOS, Effective Pixels: 20 MP                      Lens: FOV: 84°                      Dimensions: 155×128×176 mm (L×W×H)                      Or equivalent to same specification mentioned above.</p>	01	✓	✓	✓	✓	✓	Not Quoted	Scan copy of Bid Security Cheque. Hence, Dis-qualified.	✓
<p>Technical Evaluation</p> <p>The equipment quoted by the vendor meets the technical specifications and may quality for the "Financial Evaluation".</p>				<p>The equipment quoted by the vendor meets the technical specifications and may quality for the "Financial Evaluation".</p>						<p>The equipment quoted by the vendor meets the technical specifications and may quality for the "Financial Evaluation".</p>



Sr.#	Items	Requirement as per Tender		General & Technical Specifications (Items-wise)		Bidders Company					
		Qty.	Technical Specifications (Items-wise)	AAMSONS Technologies (Pvt) Ltd.	Chaudhary Brothers & Co.	KBS Enterprises	Khan Associates	Sandhu Engineering & Trading Company	Ratiq & Sons	HTH Enterprises	AVIA ACROSS
6)	<p>360 Camera Sensor Size: 1/2" Aperture: F/1.9 35mm Equivalent Focal Length 6.7mm Video Resolution: 360° Mode: 3840x2160@30/25/24fps 5.7K+ 5760x2880@30/25/24fps 5.7K 5760x2880@60/50/30/25/24fps 4K 3840x2160@100/60/50/30/25/24fps Single-Lens Mode 4K: 3840x2160@60/50/30/25/24fps 2.7K: 2720x1536@60/50/30/25/24fps 1080p 1920x1080@60/50/30/25/24fps Me Mode 4K: 3840x2160@30/25/24fps 2.7K: 2720x1536@30/25/24fps 1080p: 1920x1080@30/25/24fps Photo Resolution: Approx. 72Mp (118,262,528) Approx. 18Mp (36,864,294) Photo Format: JPSF (raw export via mobile app or Studio desktop software) DNLS (Lossless 17:10) Video Modes: Video, Active HDR, TimeShift, Bracket Time, Loop Recording, Pre-recording Photo Modes: Photo, HDR Photo, Interval, Stillapse, Burst Color Profiles: Standard, Vint, Flat Video Coding: H.264, H.265 Max. Video Bitrate: 200Mbps Exposure Value: 48EV ISO Range: 100-6400 Shutter Speed: Photo: ~18000 - 120s Video: 1/8000 - to the limit of frames per second Video Modes: Auto/Wind Reduction, Active Wind Reduction, Stereo, Direction Focus Audio Format: 48 kHz, 16bit, AAC Weight: 200g Dimensions (W x H x D): 46x123x63.76mm MicroSD Card: UHS-I V30 speed class, exFAT format SD cards with a max storage of 1TB are recommended. Misc. 4 Battery Capacity: 2200mAh Charging Time: Charge to 80% in 38 minutes (9V 2A) Charge to 100% in 55 minutes (9V 2A) Run Time: 135 mins (tested in a lab environment in Video Mode at 5.7K/30fps, Run time at 100% battery) Operating Temperature: -4°F to 104°F (-20°C to 40°C) Bluetooth: BLE 5.2 Wi-Fi: 2.4GHz, 5GHz 802.11a/b/g/n/ac USB: Type-C USB 3.0 Gyroscope: 6-axis gyroscope Or equivalent to same specification mentioned above.</p>	01	✓	✓	✓	Insta 360 quantity quoted is Two (02), instead of One (01)	✓	✓	Not Quoted	✓	
<p>Technical Evaluation</p>		<p>The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".</p>									

EVALUATION COMMITTEE

M. Tanvir Abbas  
 Dr. Waqar Ahmed  
 Mrs. Atiqah Jaz Khan  
 Representative of Procurement Cell  
 Representative of Management Division

RECOMMENDATIONS

(a) The bids were invited through an advertisement in daily newspapers, PPRA and NESPAK websites, as per PPRA rules.

- i. Qualified Bidders against Sr # 01: All bidders except M/s HTH Enterprises is dis-qualified.
- ii. Qualified Bidders against Sr # 02: All bidders except M/s HTH Enterprises is dis-qualified & M/s Avia Across did not quoted.
- iii. Qualified Bidders against Sr # 03: All bidders except M/s HTH Enterprises is dis-qualified & M/s Ratiq & Sons did not quoted.
- iv. Qualified Bidders against Sr # 04: All bidders except M/s HTH Enterprises is dis-qualified & M/s Khan Associates did not quoted.
- v. Qualified Bidders against Sr # 05: All bidders except M/s HTH Enterprises is dis-qualified & M/s Ratiq & Sons did not quoted.
- vi. Qualified Bidders against Sr # 06: All bidders except M/s HTH Enterprises did not quoted.

(b) The quoted items may be awarded to the lowest bidder against each Sr. # after "Financial Evaluation".



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**National Engineering Services of Pakistan Pvt. Ltd. (NESPAK)  
Geotechnical & Geoenvironmental Engineering Division  
PROCUREMENT OF SURVEY EQUIPMENT  
LOT-3 (FIXED WING DRONE)  
EVALUATION OF BIDDERS (TECHNICAL)**

Date: 09-01-2025

Sr. #	Requirement as per Tender		Bidder's Company					
	Items	Qty.	General & Technical Specifications (Items-wise)	Rafiq & Sons	Sandhu Engineering & Trading Company	KBS Enterprises	Chaudhary Brothers & Co.	Public Surveying Systems
A)	<b>General Specifications</b>  <b>Drone Descriptions</b> Drone Type: Vertical takeoff and landing (VTOL) Absolute horizontal accuracy: 1 cm (0.4 in) Maximum Takeoff weight: 4.7 kg (9.9 lb) Maximum payload weight: 800 g (1.8 lb) Wingspan: 125 cm (4.1 ft) Battery capacity: 180 wh or more Battery type: Li-ion, smart battery technology, Bi-directional 10 km (6 mi) in direct line of sight. Radio Link: Redundant, using GPS (L1, L2), GLONASS (L1, L2), Galileo (L1) and BeiDou (L1)  <b>Flight speed</b> Operational cruise speed, 16 m/s (35.8 mph) Max sustained wind, 12 m/s (27 mph)  <b>Maximum flight time</b> Maximum take of altitude: 2500 m (8200 ft) with normal propellers high-altitude propellers up to 4800 m (15,700 ft) and fly up to 5000 m (16,400 ft) AMSL < 2 m (< 7 ft) <b>Auto landing accuracy:</b> Operation Temperature: -10 to +40 °C (+14 to +104 °F) Weather: IP54  <b>Camera Descriptions</b> Magnification/ sensor Type: 61 MP Full Frame or more 750g or less Payload including mount: Up to 300 ha at 1.9 cm/pixel Maximum coverage at 120 m (400ft): 1400 ha at 9.5 cm/pixel Maximum coverage at 600 m (1970 ft): 1 cm Horizontal absolute accuracy with ppp: 3 cm Vertical absolute accuracy with ppp: Full frame 72" or more Sensor type: Field of view Horizontal 0.7 cm or less GSD at 45m altitude: At 120 m (400 m), 65% Maximum frontal overlap: 85%  Or equivalent to same specification mentioned above.	1	Bid Security (100k) PKR	✓	✓	✓	✓	✓
B)		GST	1	✓	✓	✓	✓	✓
C)		NTN	1	✓	✓	✓	✓	✓
			a) Accuracy (Vert. & Hor.) + VTOL	Not Mentioned	Not Mentioned	✓	✓	✓
			b) Radio Link Distance (10 km)	Not Mentioned	X (Dis. < 8 km)	✓	✓	✓
			c) Onboard GPS	Not Mentioned	Not Mentioned	✓	✓	Not Mentioned
		1	d) Flight Speed (16 km per sec.)	✓	✓	✓	✓	✓
			e) Flight Time (65 minutes)	✓	✓	✓	✓	✓
			f) Max. Take-off Altitude with Normal Propellers (2500m)	✓	✓	✓	✓	✓
1)			g) Cam. Res. (Details) - 61MP	✓	✓	✓	✓	✓
			h) Covering Areas Comp. with Altitude & GSD	Not Mentioned	Not Mentioned	✓	✓	Not Mentioned
			i) Wing Span (125cm Approx.)	X (Span is 210 cm)	X (Span is 239 cm)	✓	✓	X (Span is 229 cm)
			j) Wing Res. (12 m/s)	X (Res. 10.56 m/s)	✓	✓	✓	✓
			k) Op. Temp (-10° - 40°C)	✓	✓	✓	✓	✓
			l) Weather (IP 54 Standard)	Not Mentioned	✓	✓	✓	Not Mentioned
			m) Max. Take-Off Weight (4.7 kg approx.)	X (Kg = 7.5)	X (Kg = 5.75)	✓	✓	X (Kg = 6.8)



2) Additional Batteries for above mentioned equipment (Sr # 01).	03 Sets	n) Additional Batteries	✓	The vendor does not meet the necessary technical specifications.	✓	The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".	The vendor does not meet the necessary technical specifications.
Technical Evaluation							

EVALUATION COMMITTEE

M. Tanvir Abbas  
 Dr. Waqar Ahmed  
 Mrs. Aigra Ijaz Khan  
 Representative of Procurement Cell  
 Representative of Management Division

RECOMMENDATIONS

- (a) The bids were invited through an advertisement in daily newspapers, PPPRA and NESPAK websites, as per PPPRA rules.
- (b) M/s KBS Enterprises & M/s Chaudhary Brothers & Co. are the qualified bidders for Sr# 01 & 02 (Lot-03). The quoted items may be awarded to the lowest bidder after financial evaluation.



APPROVED BY

*(Handwritten signature)*

National Engineering Services of Pakistan Pvt. Ltd. (NESPAC)  
Geotechnical & Geoenvironmental Engineering Division  
PROCUREMENT OF SURVEY EQUIPMENT  
LOT-4 (ECHO-SOUNDER AND DIFFERENTIAL GPS)  
EVALUATION OF BIDDERS (TECHNICAL)

GNSS PERFORMANCE RTK & STATIC DGPS (1/2)

Date: 09-01-2025

Sr.#	Requirement as per Tender		General & Technical Specifications (Items-wise)	Bidder's Company						
	Items	Qty.		Rafiq & Sons	Sandhu Engineering & Trading Company	KBS Enterprises	Chaudhary Brothers & Co.	Public Surveying Systems	GEO Solutions	Khan Associates
A)	General Specifications	1	Bid Security (100K) PKR	✓	✓	✓	✓	✓	✓	✓
B)		1	GST	✓	✓	✓	✓	✓	✓	✓
C)		1	NTN	✓	✓	✓	✓	✓	✓	✓
1)	GNSS Performance RTK & Static DGPS	02 sets	<p>Signal Tracking GPS 1 CIA, L2C, L2P1V, L5 GLONASS L1C/A, L1P, L2 CIA, L2P, L3 CDMA Galileo E1, E5a, E5b, E5M, E5C, E5X SBAS L1 C/A, L1 P1, L1 X QZSS L1 C/A, L1 SAIF, L2 C, L5, LEX RNSS L5 L Band Support GNSS Accuracy Real Time Kinematics (RTK) Horizontal 8 mm + 1 ppm RMS Vertical 15 mm + 1 ppm RMS Post-processing kinematic (PPK) Horizontal 3 mm + 1 ppm RMS Vertical 5 mm + 1 ppm RMS Post-processing static Horizontal 2.5 mm + 0.5 ppm RMS Vertical 5 mm + 0.5 ppm RMS Code differential Horizontal 0.4 m RMS Vertical 0.8 m RMS Autonomous Horizontal 1.5 m RMS Vertical 2.5 m RMS Battery (Li-Ion) 10000mAh Memory (Flash Storage) 64GB, Micro SD 128GB Output User Friendly; USB Type-C port (external power, data/download, firmware update) UHF antenna port (FNC female) USB Type A / Type C Cable, Bluetooth V4.2 Range WhatsApp Email Wi-Fi 802.11 b/g/n, access. Data Open Formats: RTCM 2.x, RTCM 3.x, CMR, CMR+, SCMRX Input and output RINEX 2.11, 3.02 NMEA 0183 output NTRIP Client, NTRIP Server Supported: 4G Range: Internal Radio 100km to 12km and External Radio 25km to 50km HDOP: 14 Compensated 0-60 Time to first fix (4) Hot start &lt; 10 s Signal reacquisition &lt; 1 s Cold start &lt; 30 s RTK (if compensated) Typically less than 10 mm + 0.7 mm/m IR Tilt sensor: Calibration-free (AU), E-Bubble levelling/operating -40°C to +65°C (-40°F to +149°F) Data Controller: built in licensed software with accessories Accessories for Base • 35W External Radio + High gain Antenna, • Set of Rover UHF Antenna • One Set of all Cables of base Receiver • 02 Extension Rod, 03 Tribrach Optical • 02 Wooden Heavy-Duty Tripod / Stand • 02 Tripod Leveling Head • 1 Set Cable of Rover Receiver • Dual Battery System set for Rover Receiver Working time 24 (Hours) • 1 Dual battery Charger with cables • 1 Set of Rover UHF Antenna • 1 Set Rover Rod Pole with collector Holder • 1 Set Rover Rod Pole with standard accessories. Complete with related all standard accessories. Note: Set includes 01 Base Receivers with External Radio, 01 Rover Receivers, 01 Data controller and required accessories Or equivalent to same specification mentioned above.</p>	<p>a) Brand Name &amp; Quantity (02 sets) Kolida (02 sets)</p> <p>b) RTK Internal Battery Timing (18 Hr.) ✓</p> <p>c) RTK (Static) ✓</p> <p>d) RTK Accuracy (H= 8mm &amp; V=15mm) ✓</p> <p>e) PPK Accuracy (H= 3mm &amp; V=5mm) X (H= 6mm &amp; V=15mm)</p> <p>f) Static Accuracy (H= 2.5 mm &amp; V=5mm) ✓</p> <p>g) Data Open Formats: a. RTCM b. CRM ✓</p> <p>h) Radio Range Internal (10-12 km) ✓</p> <p>i) Tilt Op. Angle (0°-60°) ✓</p> <p>j) Tilt Op. Accuracy (&lt; 10mm) ✓</p> <p>k) Environmental Specifications ✓</p> <p>l) Accessories for Base &amp; Rover ✓</p>	<p>Rafiq &amp; Sons</p> <p>Sandhu Engineering &amp; Trading Company</p> <p>KBS Enterprises</p> <p>Chaudhary Brothers &amp; Co.</p> <p>Public Surveying Systems</p> <p>GEO Solutions</p> <p>Khan Associates</p>					
<p>The vendor does not meet the necessary technical specifications.</p>				<p>The equipment quoted by the vendor meets the necessary technical specifications and may qualify for the "Financial Evaluation".</p>	<p>The vendor does not meet the necessary technical specifications.</p>	<p>The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".</p>				



Sr.#	Requirement as per Tender	Qty.	General & Technical Specifications (Items-wise)		Bidder's Company			
			Sandhu Engineering & Trading Company	KBS Enterprises	Chaudhary Brothers & Co.	Public Surveying Systems		
	<b>Echo Logger Dualfrequency echo sounder with tilt and temperature sensor for Drone Required with</b>		1)	Echo Logger ECT D025S	✓	✓	✓	✓
	<b>SkyHub Onboard Computer Hardware</b>		2)	SkyHub Onboard Computer Hardware	✓	✓	✓	✓
	<b>SkyHub Smart Cable Assembly</b>		3)	SkyHub Smart Cable Assembly	✓	✓	✓	✓
	<b>Obstacle Detection Sensor</b>		4)	Obstacle Detection Sensor	✓	✓	✓	✓
	<b>Universal Mount for Heavy Payloads</b>	01 set	5)	Universal Mount for Heavy Payloads	✓	✓	✓	✓
	<b>Protective Box &amp; True Terrain Kill</b>		6)	Protective Box & True Terrain Kill	✓	✓	✓	✓
	<b>Software &amp; License</b>		7)	Software & License	✓	✓	✓	✓
	<b>Training &amp; Support</b>		8)	Training & Support	✓	✓	✓	✓
<p><b>Technical Evaluation</b></p>			<p>The equipment quoted by the vendor meets the technical specifications and may qualify for the "Financial Evaluation".</p>					

EVALUATION COMMITTEE

RECOMMENDATIONS

APPROVED BY

M. Tanvir Abbas  
 Dr. Waqar Ahmed  
 Mrs. Aliqa Ijaz Khan  
 Representative of Procurement Cell  
 Representative of Management Division

*(Signatures)*

(a) The bids were invited through an advertisement in daily newspapers, PPRa and NESPAK websites, as per PPRa rules.  
 I. Qualified Bidders against Sr # 01: M/s Sandhu Engineering & Trading Company, M/s KBS Enterprises, M/s Chaudhary Brothers & Co. and M/s Khan Associates are qualified.  
 II. Qualified Bidders against Sr # 02: All bidders.  
 (b) The quoted items may be awarded to the lowest bidder against each Sr. # after "Financial Evaluation".



*(Signature)*