

REQUEST FOR PROPOSAL

1. Technical Qualification Criteria

Qualification will be based on the criteria given in the following paras regarding the Applicant's experience, personnel equipment capabilities and litigation history, as demonstrated by the Applicant's responses in the Forms attached as Annex-A to this Document. The Employer reserves the right to waive minor deviations, if these do not materially affect the capability of an Applicant to perform the contract by the Applicant.

1.1 General Information

The Applicant/ Firm shall provide general information of the firm as per the format specified in the Application Form A-1 attached in Annex-A.

1.2 Experience of the Firm

The Applicant/ Firm shall meet the following minimum criteria:

- 1) Successful experience in the execution of at least three (03) projects involving Topographic survey through aerial mapping within the last three (03) years each of min 1000 Kanals area. This experience should specifically be of topographic survey of similar nature. The Applicant will supply information as per the format specified in the Application Form A-2 attached in Annex-A.

1.3 Personnel Capabilities

The Applicant/ Firm must have in employment, suitably qualified and experience personnel to fulfill the positions tabulated below. The Applicant/ Firm will supply information as per the format specified in the Application Form A-3 attached in Annex-A.

Sr. No.	Position	Qualification	No.	Relevant Minimum Experience (Years)
1	Team Lead	B.Sc. Civil Engg.	1	10
2	Aerial Mapping Expert	M.Sc. Geomatics	1	10
3	GIS Analyst	M.Sc. RS/ GIS	1	10
4	Senior Surveyor	DAE Civil	1	10
5	Skilled Labor	-	As Required	-

1.4 Equipment Capabilities

The Applicant/ Firm should own, or have assured access to the following key items of equipment in full working order, and must demonstrate that, based on known commitments, these will be available for deployment on the proposed works.

Sr. No.	Equipment Type & Characteristics	Minimum Number Required
1	DJI Phantom 4 Pro (version 2.0) or Mavic 2 pro Quadcopter (multi-rotor) or equivalent/ better alternative	1
2	Total Station	2
3	Differential GPS (R2 rovers & R9S base) or equivalent/ better alternative	2

The Applicant/ Firm will supply information as per the format specified in the Application Form A-4 attached in Annex-A.

1.5 *Litigation History*

The Applicant/ Firm should provide accurate information on any litigation or arbitration resulting from Contracts completed or under execution. The Applicant/ Firm will supply information as per the format specified in the Application Form A-5 attached in Annex-A. A consistent/ overwhelming history of litigation against the Applicant may result in rejection of the application. In case an Applicant/ Firms claims Nil litigation, he shall submit the same statement on the letter head of his company.

2. Financial Evaluation of Bid

- a. The financial bids of the technically responsive Applicant/ Firms shall be opened after evaluation of technical bids, in presence of the representatives, who shall be invited for the occasion and who care to attend. The total cost, bid security and major components of each proposal shall be publicly announced to the attending representatives of the firms. The time, date and venue for opening of financial proposals of the technical responsive firms will be communicated later on.
- b. The financial proposal of bids found technically non-responsive shall be returned unopened to the respective bidders.
- c. The bid found to be lowest evaluated bid shall be accepted.
- d. Bid Security of successful bidders shall be released after successful completion of field work.

The Applicant/ Firm shall quote his financial bid as per the format specified in the Application Form A-6 attached in Annex-A.

Application Form A-1

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General Information

All Applicants/ Firms applying for qualification are requested to complete the information in this form.

Name of Applicant/ Firm	
Head Office Address	
Telephone	Contact Person: Name: Title: Phone No.: Cell No.:
Fax	E-mail
Place of Incorporation/Registration Certificates of the firm*	Year of incorporation/registration

*** Registration certificates must include:**

- Valid registration with Federal Board of Revenue (FBR)
- Valid registration with Khyber Pakhtunkhwa Provincial Revenue Authority (KP-PRA)
- Proof on active taxpayer list of FBR & KP-PRA

Authorized Signature and official Seal: _____

Name: _____

Date: _____

Experience of the Firm

Name of Applicant/ Firm: _____

Sr. No.	Name of Project	Value of Contract* (Pak Rs.)	Project Area (Kanals)	Contract Duration	Project Status (Ongoing/ Completed)

***Attach copy of Letter of Awards / Project Completion Certificates**

Authorized Signature and official Seal: _____

Name: _____

Date: _____

Personnel Capabilities

Name of Applicant/ Firm: _____

Sr. No.	Name of Person	Qualification	Designation/ Position*	Total Experience

***Attach CVs of the Key Staff Members.**

It may be noted that Key staff become part of the contract and they cannot be replaced by the firm without the prior written approval. Therefore, the applicant/ firm must ensure that they propose only those persons whom they can make available for executing the works at site.

Authorized Signature and official Seal: _____

Name: _____

Date: _____

Equipment Capabilities

Name of Applicant/ Firm: _____

Sr. No.	Equipment Description & Details	Number of Equipment	Working Condition

Authorized Signature and official Seal: _____

Name: _____

Date: _____

Litigation/ Arbitration History

Name of Applicant/ Firm: _____

Year	Award for or against Applicant	Name of Client, cause of litigation/ arbitration, and matter in dispute	Disputed amount (current value Pak Rs. or equivalent)

Authorized Signature and official Seal: _____

Name: _____

Date: _____

Financial Proposal

The Financial Bid/ Proposal for carrying out Topographic Survey through aerial mapping should be quoted by the Applicant/ Firm on the following format:

Name of Applicant/ Firm: _____

S. No.	Task	Unit	Quantity	Unit Rate (Per Kanal)	Total Amount (Rs.)
1.	Topographic Survey through Aerial Mapping including all scope of work as mentioned in TOR for an area of approx. 8500 Kanals	Per Kanal	8500 Kanals		
Total Amounts in Words:					

Terms and Conditions:

- a. The quoted bid shall be inclusive of all taxes, including but not limited to Income Tax, Sales Tax etc.
- b. No advance payment shall be made.
- c. 100% payment shall be made on Completion of actual area Surveyed and successful review of the Deliverables and **subject to payment of the work by the Client (Pakistan Housing Authority Foundation (PHA-F) to NESPAK.**
- d. No payment shall be made for incomplete work.
- e. No financial claim whatsoever, shall be entertained if the work is suffered due to local conditions and law and order situation.
- f. Bid Security of successful bidders shall be released after successful completion of field work.
- g. Liquidated Damages @ 1% of the Contract Price for each day of delay up to a maximum of 10% of the Contract Price shall be deducted for late completion of works.

Authorized Signature and official Seal: _____

Name: _____

Date: _____

TERMS OF REFERENCE

1. GENERAL:

National Engineering Services Pakistan (Pvt.) Limited – NESPAK is seeking an experienced survey firm for carrying out Topographical survey through Aerial Mapping of area approx. 8500 Kanals for Housing Scheme named “**PHA Residencia Peshawar**” at Surizai, Peshawar in Khyber Pakhtunkhwa, Pakistan.

The firm has to comply with the terms and specifications mentioned in this RFP.

2. LOCATION

The PHA Peshawar Residencia site is located at a distance of 10 KM from N-55 Indus Highway on Main Canal Road Peshawar and situated along the ‘Uch Nehar’ Canal. Project area is approx. 8500 Kanals. Shamshato and Aza Khel are the famous villages situated in the surroundings of the project site.

Table 1: Specific Location of the Project Site

Site location				
Location	Surizai Kohat Road - Peshawar			
Geographic coordinates	Latitude	33°51'5.72"N	Longitude	71°40'30.43"E
Avg. Elevation (m)	450m			

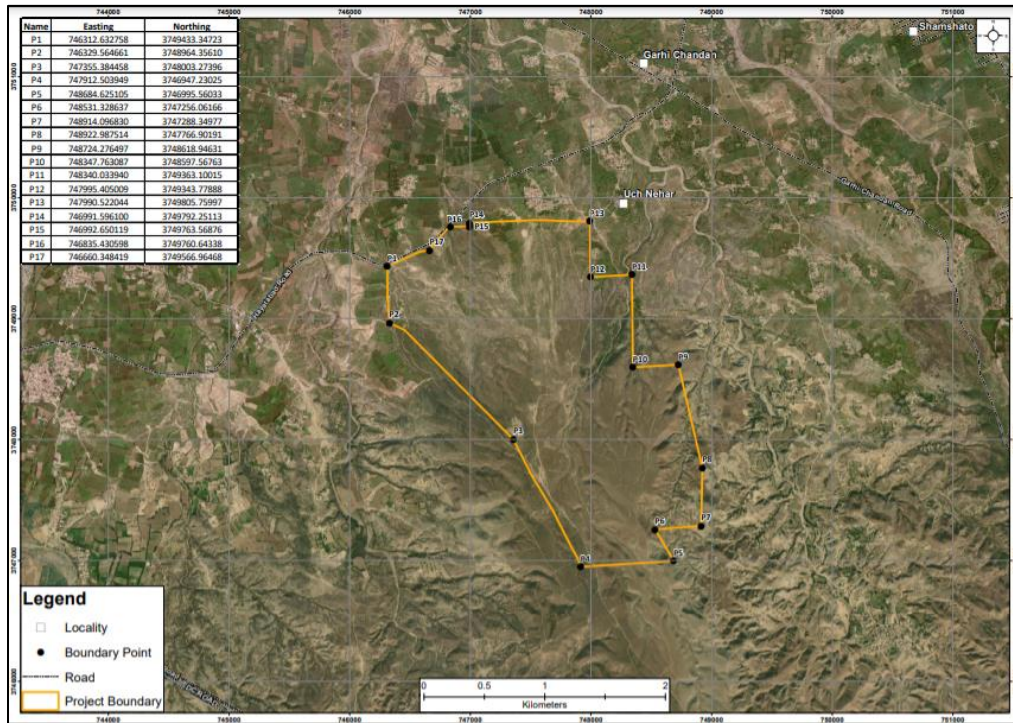


Figure 1: Project Layout Plan (PHA RESIDENCIA PESHAWAR)

3. SURVEY LIMITS AND CORRIDOR:

The survey shall cover the whole plot and adjoining roads/ streets of any width outside the project boundary. Project site is bounded by the coordinates given in Table 2 herein below, however, final boundary limits shall be identified by the representative of Provincial Housing Authority-Khyber-Pakhtunkhwa (PHA-KP).

Table 2: Coordinates of Project Boundary Corners

Boundary Corner	Easting (UTM m)	Northing (UTM m)
P1	746312.63	3749433.35
P2	746329.56	3748964.36
P3	747355.38	3748003.27
P4	747912.50	3746947.23
P5	748684.63	3746995.56
P6	748531.33	3747256.06
P7	748914.10	3747288.35
P8	748922.99	3747766.90
P9	748724.28	3748618.95
P10	748347.76	3748597.57
P11	748340.03	3749363.10
P12	747995.41	3749343.78
P13	747990.52	3749805.76
P14	746991.60	3749792.25
P15	746992.65	3749763.57
P16	746835.43	3749760.64
P17	746660.35	3749566.96

4. SCOPE OF SERVICES:

The main objective is to perform the detailed topographical studies of project area through aerial survey using UAV drones. This includes but not limited to the following:

4.1 Control Points

- a. The survey firm shall check availability of Survey of Pakistan (SoP) Bench Mark and will use the same as survey reference. In case of non-availability of SoP bench mark in near vicinity, the reference shall be created with Differential GPS coordinates at site.
- b. Establishment of Permanent Ground Markers (PGM) at an appropriate location having least probability to damage. Detail of PGM is enclosed herewith as Appendix-A. The markers will be established such that they can be utilized as a survey point of reference for the duration of the Project (4 years minimum).
- c. One number PGM shall be positioned at the edge of the site extents with a minimum of two additional PGMs positioned outside the site extents. The positions of the two PGM's outside the site are to be agreed with the Client in conjunction with the relevant governmental authority and should be placed in discrete locations where they will not be a hazard and will not be in danger of being damaged.

- d. Details relating to the location of each PGM including a detailed description and sketch referencing it to landmarks local to the survey area or a known point shall be included in the survey report.
- e. Installation and Establishment of permanent Geodetic Survey Control in the project area using GNSS system in Static mode (10 Points).

4.2 Survey Detail

- a. The survey shall be conducted in FPS system.
- b. Establishment of Geodetic Control and Ground Control Points (GCPs) in static mood. Ground Control Points (GCPs) be required in order to produce accurately geo-referenced DEM and Orthophoto for mapping. These points are to be measured on static objects which shall be easily identifiable in the UAV imagery. GCPs are photo identifiable points that shall be observed and measured on the aerial photograph.
- c. The contour interval shall be two (02) ft for minor contour and five (05) ft for index contour.
- d. Spot levels shall be shown on the drawings.
- e. Where side slopes are encountered, slope symbols shall indicate the fall of the slope.

4.3 Site Boundary

- a. The topographic survey report shall detail accurately the precise location of the site boundary in line with the provisions detailed in Para 3 herein above.

4.4 Existing Utilities and Services

- a. All existing nullahs/ drains, water supply lines, telephone lines, electric lines, gas lines and any other utilities/ services present within and adjacent to site shall be marked with sufficient details.
- b. Where existing nullahs/ water streams are encountered, the survey shall record both the cover level and invert level(s) of the nullahs/ streams.
- c. Width of existing nullahs showing water flow limits, nullah verge lines, and toe lines with necessary elevations be provided.
- d. For overhead services, the position of poles, the height of the service and direction leaving the site extents shall be recorded.

4.5 Existing Elements

- a. Any existing building(s) shall be accurately marked in plan.
- b. Trees shall be recorded and marked on topographic survey.

5. NOTES ON SAFETY MEASURES

- a. The survey firm shall ensure that all of his staff and workers are equipped with Personal Protection Equipment (PPEs). No worker will be allowed at site without having proper PPE.
- b. The survey firm shall ensure they have understood the project requirement related to quality, health, safety and environment during whole activity period. The firm shall ensure to follow the "PEPA & EBRD, September 2009" guidelines.
- c. The survey firm shall make arrangement to safeguard their equipment, personnel and all other resources from vandalism and trespassing at their own cost.
- d. The firm shall comply and enforce compliance by all his staff with the highest standards of safety and accident prevention in accordance with international standards and in compliance with all applicable laws, ordinances and statutory provisions.
- e. Survey firm shall not pour, bury burn, not in any way dispose of a chemical on the work job site. No open burning, debris, or rubbish will be permitted at the project site.

The cost of all safety measures mentioned above and any other internationally practiced measures shall not be quoted separately but will be deemed covered in the quoted price. A breach to any of the safety measures can lead to the termination of contract.

6. DELIVERABLES:

- a. Location of Permanent Ground Marker (PGM) with their coordinates.
- b. Location of Geodetic survey control points with their coordinates.
- c. Location of existing Benchmarks, which has been referenced/ followed for the survey with coordinates.
- d. Properly annotated Topographic data/drawing in AutoCAD format, containing 3D points, existing features/ details and contours.
- e. The coordinate data in excel format including point number, coordinates, elevations and description in separate columns.
- f. Coding details in soft and hard format.
- g. Latest Digital Ortho-Rectified Imagery (4-5cm Resolution)
- h. Digital Surface Model (20 cm Resolution)
- i. Digital Inventory survey using high resolution photographs.
- j. High Resolution Video of area.
- k. Topographic Survey drawing/ Contour Plan will be provided (02 Copies) at A1/ A2 size sheet at appropriate scale of 1:500.
- l. Each individual element or group of elements (e.g. utility, wall, spot height etc.) that gets surveyed is contained on a separate layer. These layers shall be named identifying the element in question thus enabling various elements surveyed to be turned on /off, as required.
- m. Bathymetric survey of all the nullahs/ streams traversing the site area.
- n. Elevations at top and toe of any existing structures etc. to be provided. Cut areas and broken areas shall be marked to represent the exact site conditions.

In case of any errors observed in survey data/ drawings the firms shall revise the particular portion of the work at no additional cost and shall provide revised data/ drawings as above.

7. BID VALIDITY

Your bid shall be valid for a time period of one hundred twenty (120) days after the bid opening. The successful bidder shall mobilize on the site on three days' notice after issuance of Letter of Award/ Acceptance and/ or as per the directions of relevant officials of NESPAK.

8. BID SECURITY:

Each Bidder shall furnish, as part of his bid, a Bid Security amounting to **3%** of bid price in the form of pay order or bank draft in favor of M/s NESPAK with an undertaking in Technical Bid that Bid Security is sealed with the envelope of Financial Bid.

9. TIME FOR COMPLETION:

The whole survey work shall be completed in all respects within a period of twenty-one (21) days from the date of letter of acceptance/ award.

10. PAYMENT:

- a. The quoted bid shall be inclusive of all taxes, including but not limited to Income Tax and Sales Tax.
- b. To obtain first-hand information on the Assignment and on the local conditions, you are encouraged to pay a visit to the subject site before submitting a proposal. **You must fully inform yourself of local conditions and take them into account in preparing your proposal.** No financial claim whatsoever, shall be entertained if the work is suffered due to local conditions and law and order situation.
- c. Please note that:
 - i. The cost of preparing the proposal and of negotiating the contract, including a visit to the subject site, are not reimbursable as a direct cost of the Assignment; and
 - ii. The NESPAK is not bound to accept any of the Proposals submitted and reserves the right to annul the selection process at any time prior to Contract award, without thereby incurring any liability to the Applicant/ Firm.
- d. No advance payment shall be made.
- e. 100% payment shall be made on Completion of actual area surveyed and Successful review of the Deliverables and subject to payment of the work by the Client (Pakistan Housing Authority Foundation (PHA-F) to NESPAK.
- f. No payment shall be made for incomplete work.
- g. Bid Security of successful bidders shall be released after successful completion of field work.
- h. Liquidated Damages @ 1% of the Contract Price for each day of delay up to a maximum of 10% of the Contract Price shall be deducted for late completion of works.

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