

**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS (ROAD WORKS)****Package-1: Depalpur – Pakpattan Shareef – Vehari Road (Length 150 Km)****Package-2: Hasilpur – Bhawalnagar Road (Length 75 Km)****Invitation of Bids for Geotechnical Investigations (Field and Laboratory Works)**

Dear Sir,

Sealed bid (**Technical and Financial in separate sealed envelopes**) is invited in accordance with the attached **BOQs (for two packages i.e. Package-1 & Package-2, separately)** and **qualification criteria** from drilling Contractors/Companies for carrying out the geotechnical investigations for the subject project.

The companies capable of carrying out subject work are requested to provide their Company's Profile and the following documents along with their sealed bids:

1. PEC Registration Certificate
2. FBR & PRA Registration Certificates
3. List of Similar Projects completed during last three years
4. Financial Capability
5. Equipment Capability
6. Personnel Capability
7. Litigation History
8. HSE Policies

The work comprises; execution of auger holes up to 2.5 m depth below natural surface level (NSL) in overburden soils by hand auger/light percussion boring equipment, excavation of test pits, performance of field density tests in test pits, collection of composite soil samples from test pits, performance of dynamic cone penetrometer test and laboratory testing of selected soil samples. The field and laboratory work shall have to be completed according to the following time schedule:

Sr No.	Package Number	Time for Completion of Field Investigations	Time for Completion of Laboratory Testing	Total Time for Completion of Field & Laboratory Investigations
1	Package-1 & 2	3 weeks	3.5 weeks	6.5 weeks

Your bid shall be valid for a time period of ninety (90) days after the bid opening. **If one Contractor happens to be the lowest in both the packages, than he may be awarded one or both packages, depending on his capability to undertake such large work with tight time schedule. The work shall be executed under the instructions and full-time supervision of NESPAK engineers/geologists and the successful bidder shall mobilize to the site on three days' notice after issuance of Letter of Award/Acceptance.**

**The coordinates and ground elevations of all the investigation points by total station shall have to be provided to NESPAK before completion of investigation at site by the Contractor.** The approved laboratory, where testing is to be carried out, shall be pursued by the successful bidder for timely completion of the assigned laboratory testing.

The successful bidder shall be responsible for providing the field auger hole & test pit logs, summary of laboratory test results and detailed laboratory test results to NESPAK, within the contract period. **A premium of up to 25 % will be admissible on the official rates of the soil laboratory, selected for testing of samples. This premium has been allowed as compensation to the Contractor for making advance payment to the laboratory and later following-up for obtaining test results in time. The name of the laboratory should be provided on page 2 of 2 (Annexure-1).**

**The bidders shall submit a bid security amounting to 5% of bid price (for both packages, separately) at the time of submission of bids in the form of pay order or bank draft in favor of M/ NESPAK.**

Your **most competitive** sealed bids (**inclusive of all taxes**) in accordance with the BOQ and qualification criteria, should reach the office of the undersigned by 1100 hours on or before October 15, 2020. Technical bids would be opened on the same day at 1200 hours after their receipt in the presence of those bidders who wish to be present.

Financial bids would be opened after evaluation of Technical bids, at a time, date and venue announced and communicated to the technically responsive bidders in advance. However the final decision to accept/reject any or all the bids as per PPRA rules solely lies with the undersigned. The entire work shall be carried out in accordance with the requirements of the General Bidding Documents for Geotechnical Investigations available at NESPAK website ([www.nespak.com.pk](http://www.nespak.com.pk)). **Payment of the entire work shall be made by NESPAK after receipt of its fee from Client.**


for National Engineering Services Pakistan (Pvt.) Limited



(Abdul Basit Sheikh)  
Project Manager/CE

Highway & Transportation Engineering Division

GM/Head (B.D.D)

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**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS  
(ROAD WORKS)**

**Package-1: Depalpur – Pakpattan Shareef – Vehari Road (Length 150 Km)**

**Package-2: Hasilpur – Bhawalnagar Road (Length 75 Km)**

**1. Qualification Criteria**

Qualification will be based on the criteria given in the following paras regarding the Applicant's experience, personnel and equipment capabilities, financial position 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.

Experience and resources of the Company intended to be employed as sub-contractor shall not be taken into account in determining the Applicant's compliance with the qualifying criteria. However, for joint venture, collective experience, resources and financial soundness of all partners shall be considered.

**1.1 General Information**

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

**1.2 Experience of the Firm**

The Applicant shall meet the following minimum criteria:

- 1) Successful experience as contractor in the execution of at least five (5) projects involving bulk of geotechnical investigations within the last three (03) years. This experience should specifically be of geotechnical investigations 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 must have in his employment, suitably qualified and experience personnel to fulfill the positions tabulated below. The Applicant will supply information as per the format specified in the Application Form A-3 attached in Annex-A.

<b>Sr. No.</b>	<b>Position</b>	<b>Qualification*</b>	<b>No.</b>	<b>Minimum Experience (Years)</b>
1	Technical Manager	B.Sc. Civil Engg.	1	3
2	Site Geologist/ Supervisor / Engineer	M. Sc. Geology/ B.Sc. Civil Engg. / B.Sc. Geological Engg.	4	2
3	HSE Supervisor	HSE Certification course	2	1

4	Skilled Labor	-	As Required	-
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#### **1.4 Equipment Capabilities**

The Applicant 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.

<b>Sr. No.</b>	<b>Equipment Type &amp; Characteristics</b>	<b>Minimum Number Required</b>
1	Hand Auger / Light Percussion boring equipment complete in all respects including drilling rods, with at least one stand-by set of Hand Auger.	2
2	Casing set having various diameters for all types of boring at least 2.5 m in length with casing bits.	2
3	Test pit excavation equipment complete in all respect.	As required
4	Field density test apparatus (with 6 and 12 inches dia. cone) complete in all respect	As required
5	Wooden box for the preservation of undisturbed soil samples	As required
6	Dynamic Cone Penetrometer Test Equipment (8 kg hammer) complete in all respects	1
7	Transport for mobilization of equipment	As required

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

#### **1.5 Financial Capabilities**

The Applicant shall meet the following minimum criteria:

- 1) Annual turnover which is also termed as income from contracting for procurement of geotechnical investigations and is defined as billing for works completed during the last three (3) years of at least Rs. 3 million or the said figure has been achieved in any year during the last three (3) years.

The Applicant shall also provide evidence of financial health such as bank account statements, available line of credits, etc., to show the soundness of the Applicant's financial position for procurement of geotechnical investigations works. The Applicant will provide annual turnover of the geotechnical investigation works carried out by him during the last three years. The Applicant will supply annual turnover information as per the format specified in the Application Form A-5 attached in Annex-A.

#### **1.6 Litigation History**

The Applicant should provide accurate information on any litigation or arbitration resulting from Contracts completed or under execution over the last three (03) years. The Applicant will supply

information as per the format specified in the Application Form A-6 attached in Annex-A. A consistent/ overwhelming history of award against the Applicant may result in rejection of the application. In case an Applicant claims Nil litigation, he shall submit the same statement on the letter head of his company.

### ***1.7 Application of Health, Safety and Environmental Standards***

The Applicant should provide the HSE Policies and supporting documentary evidence for the following:

- i) First Aid Box
- ii) Personnel Protective Equipments (PPEs)
- iii) Standard Operating Procedures (SOPs)
- iv) Health, Safety and Environmental (HSE) Policies
- v) HSE staff

## Application Form A-1

Page \_\_\_ of \_\_\_ Pages

**General Information**

All individual Applicants applying for qualification are requested to complete the information in this form. Nationality information (if applicable) is also to be provided for foreign owners as required under the PEC Bye-Laws as a Partnership.

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

**\* Registration certificates must include:**

- Valid registration with Pakistan Engineering Council (PEC)
- Valid registration with Federal Board of Revenue (FBR)
- Valid registration with concerned Provincial Revenue Authority (PRA)
- Proof of active taxpayer of FBR & PRA









**Financial Capabilities**

*Name of Applicant:* \_\_\_\_\_

<b>Year</b>	<b>Annual Turnover (in PKR)</b>
2018 - 2019	
2017 - 2018	
2016 - 2017	

*Note: Financial soundness certificate from the bank(s) as specified in section 1.5 must be provided by the Applicant*





**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS (ROAD WORKS)**  
**Package-1: Depalpur – Pakpattan Shareef – Vehari Road (Length 150 Km)**

**SOIL INVESTIGATIONS**  
**BILL OF QUANTITIES**

<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>A</b>	<b>FIELD INVESTIGATIONS</b>				
1	Performance of field density tests by sand replacement method in test pits generally @three (03) to four (04) tests per pit at selected locations (15 Nos.) on existing road at base course, sub-base and sub-grade level. Sampling includes labeling, packing, storage and transportation to an approved testing laboratory and proper backfilling of test pits with approved materials including top 20 cm with concrete. (1:2:4)	No.	45		
2	Collection of composite samples (at least 60 kg. from base course, sub-base and sub-grade, including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	45		
3	Performance of Dynamic Cone Penetrometer test (8kg hammer) in shallow pavements in existing roads to check the onsite CBR of various layers as per ASTM D6951.	No.	15		
4	Collection of composite samples (at least 60 kg. in over burden soil and 120 kg. in gravelly soils) from proposed borrow areas at 15 selected locations up to depth of 1.5 meters, including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	15		
5	Collection of water samples including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	15		
6	Drilling in natural ground by hand auger to determine moisture content at every 50 cm. up to depth of 2.5 meters at an interval of two (02) Km. along the alignment of existing road.	No.	75		
7	Collection of composite soil sample s (60 Kg.) from alternate auger holes one from left and other from right side up to 2.5 meter depth.	No.	38		
<b>Sub-Total:A</b>					
<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>B</b>	<b>LABORATORY TESTING</b>				
1	Sieve Analysis. (Base Course-15, Subbase-15, Subgrade -15, B/A-15 Auger Locations 38)	No.	98		
2	Liquid and Plastic Limit. (B/A-15, Subgrade -15, Subbase -15, Auger Locations 15)	No.	60		
3	Modified Proctor Test. (B/A-15, Subgrade -15, Subbase -10, Auger locations 20)	No.	60		
4	3 Point CBR Test. (B/A-15, Subgrade -15, Subbase -10, Auger Locations 20)	No.	60		

**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS (ROAD WORKS)**  
**Package-1: Depalpur – Pakpattan Shareef – Vehari Road (Length 150 Km)**

**SOIL INVESTIGATIONS**

**BILL OF QUANTITIES**

<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
5	Determination of Organic Matter. (B/A-10, Subgrade - 10, Auger Locations 10)	No.	30		
6	Complete Chemical Analysis of water Samples including TDS, SO <sub>4</sub> , Cl, and pH.	No.	15		
<b>Sub-Total:B</b>					
<b>Total (A+B)</b>					

Notes:

**All samples shall be stored, transported and tested as per ASTM/AASHTO Standards.**

**The Contractor shall be responsible for taking permission from Police for working on the existing road.**

**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS (ROAD WORKS)**  
**Package-2: Hasilpur – Bhawalnagar Road (Length 75 Km)**

**SOIL INVESTIGATIONS**

**BILL OF QUANTITIES**

<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>A</b>	<b>FIELD INVESTIGATIONS</b>				
1	Performance of field density tests by sand replacement method in test pits generally @three (03) to four (04) tests per pit at selected locations (08 Nos.) on existing road at base course, sub-base and sub-grade level. Sampling includes labeling, packing, storage and transportation to an approved testing laboratory and proper backfilling of test pits with approved materials including top 20 cm with concrete.	No.	24		
2	Collection of composite samples (at least 60 kg. from base course, sub-base and sub-grade, including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	24		
3	Performance of Dynamic Cone Penetrometer test (8kg hammer) in shallow pavements in existing roads to check the onsite CBR of various layers as per ASTM D6951.	No.	8		
4	Collection of composite samples (at least 60 kg. in over burden soil and 120 kg. in gravelly soils) from proposed borrow areas at 15 selected locations up to depth of 1.5 meters, including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	8		
5	Collection of water samples including their labeling, packing, storage and transportation to an approved testing laboratory.	No.	8		
6	Drilling in natural ground by hand auger to determine moisture content at every 50 cm. up to depth of 2.5 meters at an interval of two (02) Km. along the alignment of existing road.	No.	38		
7	Collection of composite soil sample s (60 Kg.) from alternate auger holes one from left and other from right side up to 2.5 meter depth.	No.	19		
<b>Sub-Total:A</b>					
<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
<b>B</b>	<b>LABORATORY TESTING</b>				
1	Sieve Analysis. (Base Course-08, Subbase-08, Subgrade -08, B/A-08 Auger Locations 19)	No.	51		
2	Liquid and Plastic Limit. (B/A-08, Subgrade -08, Subbase -08, Auger Locations 19)	No.	51		
3	Modified Proctor Test. (B/A-08, Subgrade -08, Subbase -08, Auger locations 10)	No.	34		

**DESIGN / TECHNICAL ADVISOR FOR MAJOR ARTERIAL ROADS (ROAD WORKS)****Package-2: Hasilpur – Bhawalnagar Road (Length 75 Km)****SOIL INVESTIGATIONS****BILL OF QUANTITIES**

<b>Sr. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate (Rs)</b>	<b>Amount (Rs)</b>
4	3 Point CBR Test. (B/A-08, Subgrade -08, Subbase -08, Auger Locations 10)	No.	34		
5	Determination of Organic Matter. (B/A-08, Subgrade - 08, Auger Locations 10)	No.	26		
6	Complete Chemical Analysis of water Samples including TDS, SO <sub>4</sub> , Cl, and pH.	No.	8		
<b>Sub-Total:B</b>					
<b>Total (A+B)</b>					

**Notes:**

**All samples shall be stored, transported and tested as per ASTM/AASHTO Standards.**

**The Contractor shall be responsible for taking permission from Police for working on the existing road.**