

Date: 18 June 2012

Dear Sir/Madam,

Subject: Request for Proposals for Survey & Design of Herat Bypass Road of Herat Province of Afghanistan

RFP Case: UNOPS/AGOC/RFP/02/12 - Transport Sector Portfolio

# <u>Project no. 00075841 – Shindand Road Construction Project</u>

- 1. The United Nations Office for Project Services (UNOPS) is seeking qualified offers for the Survey & Design of Herat Bypass Road of Herat province of Afghanistan. Your company is kindly invited to submit your best technical and financial offer for the requested services. Your proposal could form the basis for a contract between your firm/institution and the United Nations Office for Project Services (UNOPS).
- 2. To enable you to submit a proposal, please find enclosed:
  - a) Annex I: Terms of Reference (TOR), containing a description of UNOPS requirements for which these services are being sought;
  - b) Annex II: Proposal Submission Form, to be completed and returned with your proposal; and
  - c) Annex III: A draft of the form of contract under which the services would be performed, including a link to the "General Conditions for UNOPS Contracts for Professional Services".

This letter is not to be construed in any way as an offer to contract with your firm/institution.

#### Manner of Submission

- 3. Any proposal should be prepared in the English language and comprise the following documents:
- (a) Proposal Submission Form;
- (b) Technical Component; and
- (c) Price Component.
- 5. Your proposal must be submitted using one of the following methods:
- (a) Mail/courier/personal delivery: Your proposal shall be prepared in duplicate with one marked "Original" and the other marked "Copy". In the event of any discrepancy between them, the original shall govern. Your proposal shall be submitted in one sealed outer and two sealed inner envelopes. Both inside envelopes shall indicate the name and the address of the submitting company. The first inner envelope shall be marked "Technical proposal" and contain all required technical documents as specified in clause 14 below. The second inner envelope shall be marked "Price proposal" and shall include all required financial documents as specified in clause 16 below. Proposals delivered by person are to be delivered to the following address:



ATTN: SURVEY & DESGIN OF HERAT BYPASS ROAD PROJECT: 00075841 – Shindand Road Construction Project

United Nations Office for Project Services

Afghanistan Operations Center

UNOCA Compound, Jalalabad Road, Kabul, Afghanistan

Both inside envelopes shall indicate your firm's name and address. The first inner envelope shall be marked "Technical Proposal" and contain the Proposal Submission Form and Technical Component of your proposal. The second inner envelope shall be marked "Price Proposal" and include your financial cover letter (paragraph 15, below) and Price Component.

(b) **E-mail:** Your proposal shall be firstly submitted by e-mail to the following secure e-mail: **pmafg@unops.org** and **must not exceed 7MB**. Your proposal must be signed and stamped in all relevant places. Technical and financial documents must be clearly separated in the e-mail submission. UNOPS recommends that company brochures and other information data are sent separately together with the original hard copy of your proposal.

In order to avoid last minute line congestion, UNOPS recommends that proposals are sent as early as possible before the deadline. Proposals submitted to any other e-mail or any other address or location than the address specified above will be rejected and not considered for evaluation.

- 4. Proposals must be received by UNOPS at the above address **on or before 10 July 2012, 10:00am (morning).** Any proposal received after this date may be rejected. UNOPS may, at its discretion, extend the deadline for the submission of proposals, by notifying all prospective proposers in writing. The extension of the deadline may accompany a modification of the solicitation documents prepared by UNOPS at its own initiative or in response to a clarification requested by a prospective proposer.
- 5. You are requested to hold your proposal valid for 90 days from the deadline for submission. UNOPS will make its best effort to select a firm/institution within this period.
- 6. Assuming that a contract can be satisfactorily concluded by <u>August 2012</u>, the assignment is expected to commence during the month of August 2012.
- 7. If you consider that your firm/institution does not have all the expertise for the assignment, there is no objection to your firm/institution associating with another firm/institution, particularly from a developing country, to enable a full range of expertise to be proposed. UNOPS strongly encourages association with a local firm/institution in the country of assignment. However, any invited firm/institution may not participate in more than one consolidated proposal. Similarly, a local firm/institution may associate with only one invited firm/institution that is making a proposal.

Any consulting, manufacturing or construction firm/institution with which you might be associated may not be eligible to participate in proposing/bidding for any services, goods or works which may result from or be associated with the project of which this assignment forms a part.

8. Please note that the cost of preparing a proposal and of negotiating a contract, including any related travel, is not reimbursable nor can it be included as a direct cost of the assignment.



- 9. Any requests for clarification should be referred to Abdul Raqueb YUSUFI, Procurement Associate, at the above address, e-mail <a href="mailto:abdulry@unops.org">abdulry@unops.org</a>. Any written reply to a particular question may be copied to all other invited firms/institutions, at the discretion of UNOPS.
- 10. UNOPS strongly encourages all Bidders to subscribe to the Tender Alert Service available on the United Nations Global Market Place (<a href="www.ungm.org">www.ungm.org</a>). This will allow Bidders to be notified automatically of all UNOPS business opportunities for the products and services for which they have registered. Instructions on how to subscribe to the Tender Alert Service can be found in the <a href="UNGM Interactive Guide for Suppliers">UNGM Interactive Guide for Suppliers</a>.
- 11. We would appreciate you informing us by e-mail or fax as to:
  - a) your receipt of this letter request for competitive proposals.
  - b) whether or not you will be submitting a proposal.
  - c) the date and mode of submission, in case you decide to submit a proposal.



# **Content of Proposal**

# **Technical Component**

- 12. The technical component of your proposal should be concisely presented and structured in the following order to include, but not necessarily be limited to, the following information:
  - a) Description of the Firm and the Firm's Qualifications
    A brief description of your firm/institution and an outline of recent experience on projects of a similar nature, including experience in the country and language concerned. You should also provide information that will facilitate our evaluation of your firm/institution's substantive reliability and financial and managerial capacity to provide the services.
  - b) Understanding of the Requirements for Services, including Assumptions Include any assumptions as well as comments on the data, support services and facilities to be provided by the Government as indicated in the TOR, or as you may otherwise believe to be necessary.
  - c) Proposed Approach, Methodology, Timing and Outputs Any comments or suggestions on the TOR, as well as your detailed description of the manner in which your firm/institution would respond to the TOR. You should include the number of person-months in each specialization that you consider necessary to carry out all work required.
  - d) Proposed Team Structure The composition of the team which you would propose to provide in the country of assignment and/or at the home office, and the work tasks (including supervisory) which would be assigned to each team member. An organogram illustrating the reporting lines, together with a description of such organization of the team structure, should support your proposal.
  - e) Proposed Project Team Members
    The curriculum vitae of the senior professional members of the team.

#### **Price Component**

- 13. Your separate price component must contain an overall quotation in a single currency, which may be either in US Dollars or in any convertible currency. If you opt for the latter, and for evaluation purposes only, your proposal will be converted into US dollars using the United Nations rate of exchange in effect on the date submissions are due.
- 14. The price component shall have a cover letter wherein your firm/institution's authorized representative affirms the following:
  - a) a summary of the price; and
  - b) the period of its validity.



In preparing your proposal, please note carefully from Annex III the various contract provisions regarding UNOPS policies on limitations on advance payments, retention, performance bonds, etc.

- 15. In addition, the price component must cover all the services to be provided and must itemize the following:
  - a) An all-inclusive rate per person-day (including honorarium and living expenses) for each team member to be assigned to the mission in the field and a rate for his/her work at the home office, if any.
  - b) An all-inclusive amount for international travel and related expenses (indicating number of round trips per team member).
  - c) An all-inclusive amount for local travel.
  - d) Other costs, if any (indicating nature and breakdown).
  - e) Summary of total cost for the services proposed. [N.B.: The remuneration received by your firm/institution and persons performing services for your firm/institution (other than nationals of the host country) normally will not be subject to tax liability in the host country].
  - f) A proposed schedule of payments, all of which must be expressed and will be effected in the currency of the proposal.
- 16. You should also indicate any comments or reservations to the draft form contract.

## **Payment Provisions**

- 17. UNOPS' general policy is to pay for the performance of contractual services rendered or to effect payment upon the achievement of specific milestones described in the contract. Please refer to section 3.4 of the Model Contract for Services1 that is enclosed as Annex III.
- 18. Please note that UNOPS' policy is not to grant advance payments except in unusual situations where the potential contractor/tenderer, whether a private firm, NGO or a government or other entity, specifies in the proposal that there are special circumstances warranting an advance payment. UNOPS, at its discretion, may however determine that such payment is not warranted or determine the conditions under which such payment would be made. In any case where an advance payment for \$100,000 or more is requested and subsequently approved, UNOPS will normally require a bank guarantee or other suitable security arrangement.
- 19. Any request for an advance payment is to be justified and documented and must be submitted with the financial proposal. This justification shall explain the need for the advance payment, itemize the amount requested and provide a time-schedule for utilization of said amount. In addition, you must submit documentation regarding your financial status e.g. audited financial statements at 31 December of the previous year and include this documentation with your financial proposal. Further information may be requested by UNOPS at the time of finalizing contract negotiations with the selected proposer.



## **Evaluation of Proposals**

- 20. A two-stage procedure will be utilized in evaluating the proposals, with evaluation of the technical component being completed prior to any price component being opened and compared. The Price Component will be opened only for those firms/institutions whose Technical Component meets the requirements for the assignment. The total number of points which a firm/institution may obtain for both components is [120].
- 21. The technical component, which has a total possible value of [100] points, will be evaluated using the following criteria:
  - a) the firm/institution's general reliability as well as experience and capacity in the specific field of the assignment (35 points);
  - b) the approach in responding to the TOR and the detailed work plan (40 points); and
  - c) the qualifications and competence of the personnel proposed for the assignment for a total of (25 points). The personnel will be rated in accordance with:
    - i. their general qualifications (10 points);
    - ii. previous experience with same assignment (10 points); and
    - iii. their language qualifications and experience in the region (5 points). Experience in the country of assignment would be particularly advantageous.

22.

- a) The Price Component of any proposal will only be evaluated if the Technical Component of that proposal achieves a minimum of 65 points. Proposals failing to obtain this minimum threshold will not be eligible for further consideration.
- b) The maximum number of points for the Price Component is 20. This maximum number of points will be allocated to the lowest price proposal. All other price proposals will receive points in inverse proportion according to the following formula:

Points for the Price Component of a proposal being evaluated =

[Maximum number of points for the Price Component] x [Lowest price] [Price of proposal being evaluated]

23. Please note that the UNOPS is not bound to select any of the firms/institutions submitting proposals. Furthermore, since a contract will be awarded in respect of the proposal which is considered most responsive to the needs of the project concerned, due consideration being given to UNOPS's general principles, including economy and efficiency, UNOPS does not bind itself in any way to select the firm/institution offering the lowest price.



Pre-cleared by:

Farouk HIRZALLA, Procurement /Contracts Officer

UNOPS AGOC

Date: June 18, 2012

Approved by: Q

Peter Krogh SORENSEN
OC Director & Representative
UNOPS AGOC

Date: June 18, 2012



#### ANNEX I: TERMS OF REFERENCES

## PROVISION OF Consultancy Services for Survey & Design of Herat Bypass Road

#### SCOPE OF WORK

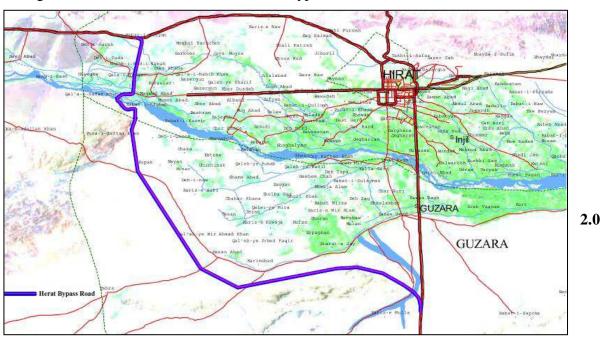
# 1.0 Background

The Islamic Republic of Afghanistan (IRA) has identified the need for construction of a bypass road outside the Herat city centre in order to improve the flow of traffic in the city and create an alternative route for traffic, particularly heavy trucks. The bypass road will also help optimize the traffic flow within the section of HW1 (Ring Road) passing through Herat city and further along the roads leading to the borders with Iran and Turkmenistan.

To implement the Project the IRA, with the Ministry of Public Works (MPW) acting as the Executing Ministry, has secured a partial Grant Fund from the Government of the Italian Republic (GOI) with the Directorate General for Development Cooperation of the Italian Ministry of Foreign Affairs (DGCS) acting as the Italian Financing Agency.

## 1.1 Selection of Bypass Road Alignment

The road alignment was selected in the course of Herat Bypass Prefeasibility Study implemented by a local consulting company under a contract with UNOPS. The alignment was originally suggested by the office of Herat Governor. After preliminary studies of various alternative routes the consultant selected the alignment proposed by the provincial authorities. The preliminary proposal for the bypass route was submitted to the board including the provincial government representatives. After incorporating comments received from various project stakeholders and approval of the route, the consultant undertook detailed technical studies of the road alignment. The selected road alignment starts from Herat-Islam Qala Highway at the point with the following coordinates: 34°23'56 "N 61°57'42 "E). The road passes Hari-Rud, Cement Factory and ends up at the junction with Herat-Kandahar Highway next to Herat Industrial Park. The road end point coordinates are as follows: 34°10'6 "N 62°13'17 "E. Total length of the bypass road is approx. 50 km. The blue line on the below figure shows the selected route of Herat Bypass Road.





#### **Objectives of the Consultancy Services**

The services to be rendered by the Consultant under this ToR are aimed at providing Technical Assistance to MoPW in the preparation of full design package necessary for the construction of Herat Bypass Road.

The objectives of the consultancy services are as follows:

- 2.1. Conduct detailed engineering survey of Herat Bypass road.
- 2.2. Prepare full set of design reports, design drawings and technical specifications necessary for the construction of Herat Bypass Road.
- 2.3. Prepare Engineer's cost estimates of the road construction works based on current market values of the works.

## 3.0. Scope of Service

The scope of work under this ToR consists of the provision of consultancy services on road survey and design necessary for the construction of Herat Bypass Road with total length estimated to be approx. 50 km.

The design of this road will follow the standards adopted by the Islamic Republic of Afghanistan Ministry of Public Works "Interim Road and Highway Standards" dated March 2007 and "AASHTO Policy on Geometric Design of Highways and Streets, Fourth Edition, 2004" (Green Book). The total road width will be 10 m and consist of 7.0 m asphalt carriageway and 1.5 m unsealed shoulder on each side. The scope of consultancy services includes implementation of detailed road topographic survey, preparation of full designs, technical specifications and cost estimates necessary for the construction of Herat Bypass road.

The Consultant will review the findings and recommendations of the Final Report on Prefeasibility Study on Herat Bypass Road. Following the report review and consultations with UNOPS the Consultant will mobilize its survey team to Herat and commence the Herat bypass road survey and design activities. The road survey and design activities shall be implemented in accordance with the following road survey and design specifications:

## 4.0 Detailed Technical Survey & Design Procedures

The Consultant is required to implement detailed road survey and design activities and prepare a complete set of design documentation necessary for the construction of Herat Bypass Road. All road works shall be designed in accordance with AASHTO, MoPW, MRRD and NRAP Standards and as directed by UNOPS.

The Consultant shall prepare drawings in a manner that clearly and adequately delineates the work to be accomplished by the construction contractor. Design documents shall be sufficiently detailed to permit construction contractors to submit responsive bids. All drawings are to be created using Computer Aided Design and Drafting (CADD) techniques, the drawings shall be signed and stamped by the authorized persons from the Consultant's design team.

The Consultant's survey & design responsibilities will include, but are not limited to the following:	
☐ Establish horizontal control points, bench marks, and reference points along the road as requir	ed
to undertake detailed topographic survey, prepare detailed engineering designs and to enab	ole
construction quantities to be calculated with reasonable accuracy. Carry out detailed topograph	iic
surveys using professional survey teams and equipment and in accordance with the profession	on
standards.	

□ Carry out hydrological study of the project site, obtain enough data for design of drainage structures, including the information on catchment areas, flood discharge and rainfall data.



carry out geotecnnical investigations along the road alignment including sampling and testing of
materials, classification of materials by their characteristics, investigating land slide issues, locating
potential borrow pits, etc.
□ prepare a section wise inventory and log all the survey information for design purpose.
☐ Carry out 7 day traffic count surveys at the major traffic inflow points.
Carry out environmental & social surveys, following the NRAP Environmental & Social
Management Framework and/or as directed by UNOPS.
☐ Prepare a detailed technical survey report, supported by photo logs.
☐ Prepare a detailed existing and proposed drainage structure inventory.
$\ \square$ Produce plan, profile and cross-section drawings of the road alignment $\ $ , all design drawings
necessary for construction of drainage structures, embankment protection and retaining structures.
☐ Provide design calculations and reports to support the design solutions and drawings.
☐ Investigate, test and define sources and available quantities of construction materials and prepare
material sources map with indicative properties and quantities.
☐ The consultant shall develop a Design Analysis that addresses general project parameters,
functional and technical requirements, design objective, design assumptions, and contain calculations
applicable to the project's design.
Prepare the design bill of quantities supported by a detailed quantities break down. Produce a
comprehensive Engineer's Estimate for the cost of works in each contract packages.
□ Design Documentation Report (DDR): The Consultant shall prepare a DDR and update it during
each phase of design. The content and format of this report must conform to employer's instructions.
The DDR shall also contain copies of site visit reports and all records of discussions.

# 4.1 Design Standards

Road designs should conform to the following standards:

- AASHTO Policy on Geometric Design of Highways and Streets, Fourth Edition, 2001 (Green Book)
- Ministry of Rural Rehabilitation and Development (MRRD) and Ministry of Public Works (MPW) Standards.
- National Rural Access Program Standards.
- MPW technical specifications developed for NRAP.
- Ministry of Public Works, Interim Road standards dated March, 2005
- AASHTO Guide for Design of Pavement Structures, 1993 and 1998 Supplement
- Design and Control of Concrete Mixtures, 14th Edition
- AASHTO Highway Drainage Guidelines, 2007 Edition
- Any other relevant guidelines and specifications as determined by UNOPS

## 4.2 Topographical survey

Using professional surveyors staff and utilizing professional survey equipment, including GPS, Total Station and automatic/digital levels, the Consultant shall conduct a full topographical survey, develop primary survey controls and establish a control points' network along the project site based on National Datum benchmark to be used in horizontal and vertical design of the road. The Consultant shall develop and set out the preliminary alignment and verify whether it suits actual field conditions. The alignment shall be modified by the Consultant where necessary to give the best possible grade to suit the existing terrain conditions and minimize the amount of cut and fill.

## 4.2.1 Establishing Survey Control Points

Prior to carrying out the topographical and level surveys, permanent control points are to be established for both horizontal and vertical control along the full length of all roads. The control points



shall be placed at maximum intervals of 500 m and located so that a minimum of two adjacent points are inter-visible. A traverse survey shall be carried out to determine X, Y coordinates. The elevations (Z value) of the control points shall also be determined with reference to the existing National Datum. The permanent control points shall be concreted and center shall be a stainless steel pin with 12 mm diameter. Each control points shall be marked with its reference number, date of construction, elevation and coordinates. These points shall be established at ground level in suitable ground conditions in location where they shall not be disturbed by construction works and shall be maintained throughout the contract period.

Following requirements shall be fulfilled during traverse survey;

- a. Horizontal angle and distance measurement
  - ❖ Horizontal angle shall be observed by 2 round of angle on 2 different zero settings,
  - ❖ A total station will be used for horizontal angle and distance measurement.
- b. Accuracy of traverse survey

Linear miss-closure of the traverse shall be better than 1/10,000.

## 4.2.2 Leveling

Leveling shall be started from an existing National Datum benchmark.

Requirements for the leveling survey shall be as follows:

- i) an automatic level or digital level shall be used;
- ii) miss-closure of leveling between existing National Datum benchmarks and control points shall not exceed +30 mm D, where D is distance in kilometers.

#### 4.2.3 Detailed Topographical survey

Detail topographical survey shall be carried out for the full length of the road. The extend will cover the existing right of way, if any, or a minimum 100m wide strip across the road corridor (extending 50m from the centre-line on the both sides). All topographical details like existing roads, tracks, drainage structures, buildings, services/utilities (electric, telephone and water lines), existing road furniture, right of way markers and kilometer posts shall be surveyed. At bridge location wider area shall be surveyed and the position of all features including the existing bridge, riverbank and at the water-line will be taken to accommodate possible location of the bridge and potentially high approach roads.

## 4.2.4 Cross-Section Surveys

Cross-sections shall be taken at 20m intervals and extend a minimum 100m wide strip (extending 50m from the center-line on the both sides) along straight sections. Centerline of the existing road, carriageway limit, shoulders and embankment toe shall be surveyed carefully. At curve section of the alignment and where sudden changes in elevation are encountered, cross section will be taken at closer intervals if required in order to represent the true surface profile.

#### 4.3 Design Criteria

The design criteria and parameters shall be adopted for Herat Bypass road based on Ministry of Rural Rehabilitation and Development (MRRD), Ministry of Public Works (MPW) Standards, MRRD



Standard Drawings Revision-1, AASHTO Policy on Geometric Design of Highways and Streets, Fourth Edition, 2001 (Green Book) and Rural Access road Standard.

The typical roadway cross-section 7m asphalt carriage way and 1.5m gravel shoulder on each side Assumed ADT (Mixed Traffic): To be determined by the Consultant through traffic surveys.

## 4.3.1 Geometric Design

The geometric design criteria shall be based on the Ministry of Rural Rehabilitation and Development (MRRD) and Ministry of Public Works (MPW) Standards and requirements of AASHTO Policy on Geometric Design of Highways and Streets, Fourth Edition, 2001 (Green Book) and Rural Road Access road standards.

#### 4.3.2 Pavement Design

The asphalt pavement design shall be developed by the Consultant to suit actual field conditions that include, but are not limited to:

- Traffic count data
- Climatic conditions
- Existing soil conditions
- Hydrological/geotechnical conditions

All pavements shall be designed in accordance with the AASHTO pavement design standards. The minimum pavement section shall be designed based on a natural subgrade CBR as evaluated from the geotechnical site investigations. The material used for constructing all pavements shall be in accordance with the approved technical specifications and as directed by UNOPS. The design of the pavements and shoulders shall be developed consistent with the specific site conditions as determined through the geotechnical investigations and is subject to approval by UNOPS.

## 4.3.3 Drainage

The Consultant is required to design each drainage structure to be constructed to suit the site specific requirements. Roadways are to be viewed as primarily for use by vehicular and pedestrian traffic and for providing access to property by vehicle and foot. They are not to be viewed as primary for drains and floodways. Public amenity and safety are to be paramount considerations:

- Consideration is to be given to the impact of the proposed drainage system on existing drains and buildings and downstream catchments.
- The drainage system is to be designed to ensure adequate removal of rain, flood and irrigation water from the roadway and adjacent road structures.
- Diversion of upstream catchments to independent catchments by the construction of a new road will not be permitted. The designer shall ensure that provision of floodways and culverts is made to ensure catchments are not altered and that no downstream catchment is effected detrimentally.
- Environmental considerations are a major consideration. Erosion and sediment control are required.
- No encumbrance of any land designed, or intended to be utilized as a floodway will be permitted.
- During the wet season, the ground becomes saturated and all drainage design should be carried out with the view that there will be 100% runoff from any and all sites.
- To avoid mosquito breeding, all drainage systems and associated structures should be designed to have no ponding of water.
- Where drainage outlets or outfalls are influenced by tidal action a discharge vs. probability analysis is to be undertaken to ensure that the appropriate annual occurrence probability is being catered for.

The design shall follow the guidelines for Afghanistan Ministry of Public Works, Interim Road standards dated March 2005, Ministry of Rural Rehabilitation and Development (MRRD) and Ministry of Public Works (MPW) Standards, NRAP standards. Due to the variation of land, land use and soil types it is not practical to list Coefficients of Run-off in these Guidelines. The designer is to



assess and confirm the coefficients prior to undertaking drainage design for the proposed development. The designer is to treat any and all drainage catchments as being totally saturated.

The Contractor is to examine the total drainage catchments and ensure that the drainage system for the road is capable of carrying the ultimate design flow from the upstream catchments.

All drainage pipes and culverts including headwalls and aprons are to be constructed in accordance with the Standard Drawings and Technical Specification.

#### 4.4 Geotechnical Investigations

Gathering site specific geotechnical information necessary to design and construct the pavement and drainage structures on this project shall be the Consultant's responsibility. The Consultant shall determine all necessary geotechnical conditions by appropriate field and laboratory investigations and supporting calculations.

# 4.4.1 Geotechnical Report

The Contractor shall produce a detailed geotechnical report containing the field exploration and testing results, laboratory testing results, evaluations, recommendations, calculations and descriptive supporting text. Information in the report shall include, but not be limited to:

- Existing geotechnical (e.g., surface and subsurface) conditions,
- Subsurface exploration logs, location of exploration points, foundations selected, soil bearing capacity, pavement design criteria (e.g., CBR values), ground water levels, and road embankment and pavement construction recommendations.
- Materials (e.g., concrete cement, asphalt and aggregates).
- Slope and rock stability evaluation, protection measures.

Two copies of the detailed geotechnical report shall be submitted to UNOPS for review and approval. All geotechnical engineering design parameters shall be developed by a geotechnical engineer or geotechnical firm responsible to the Consultant. The geotechnical engineer or geotechnical firm shall be qualified by: education in geotechnical engineering; professional registration; a minimum of ten (10) years of experience in geotechnical engineering.

## 4.5 Design Analysis

A design analysis shall be submitted to UNOPS for review and approval. The design analysis is a written explanation of the project design which is expanded and revised (updated) as the design progresses. The design analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the final drawings and specifications. The design analysis contains the criteria for and the history of the project design, including criteria furnished by UNOPS, letters, codes, references, conference minutes, and pertinent research. Design calculations, computerized and manual, are included in the design analysis. Narrative descriptions of design solutions are also included. Written material may be illustrated by diagrams and sketches to convey design concepts.

Copies of all previous design phase review comments and the actions assigned to them shall be included with each submission of the design analysis.

## 4.6 Design Calculations

When they are voluminous, they shall be bound separately from the narrative part of the design analysis. The design calculations shall be presented in a clean and legible form incorporating a title page and index for each volume. A table of contents, which shall be an index of the indices, shall be furnished when there is more than one volume. The source of loading conditions, supplementary sketches, graphs, formulae, and references shall be identified. Assumptions and conclusions shall be



explained. Calculation sheets shall carry the names or initials of the computer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.

#### 4.7 Drawings

The design drawings submissions shall consist of the following:

- Project Road Location Plan and General Notes;
- -Typical Cross Sections;
- -Typical road structures drawings;
- Road works Layouts (Plans), Longitudinal Sections (Profiles);
- Drainage Layout, Longitudinal Sections, Sub Soil Drainage layout
- Intersection and Details where required (each individual intersection/junction);
- Design Cross Sections (at 20m intervals);
- Any other relevant drawings.

Each road segment shall be drawn in plan, profile and cross sectional views. The drawings are to show the following information and feartures:

- •Widths of all pavements, verges and medians;
- Distances (chainages) and stations along center line of road (in Km);
- Horizontal and Vertical curve data;
- Existing and proposed levels;
- Proposed traffic management devices;
- Survey and bench marks and horizontal and vertical datum information;
- Cross Sections to show the offset from the road center line and level differences
- Road center line;
- Traffic lane;
- Shoulder widths and levels;
- Gradients at any change in cross fall;
- Earthworks limit;
- Cuts and fills extending into properties;
- Longitudinal Sections;
- Existing surface levels along center line;
- Design levels for road center line;
- Levels at 50m maximum spacing for straight grades and 20m maximum for vertical curves;
- Levels to be shown at horizontal and vertical curve tangent points and other required locations;
- Lengths of grade lines with grades expressed as percentages;
- Intersection and tangent point changes of grade;
- Length of vertical curves and other information;
- Transition and super elevation details;
- Intersections;
- All adjacent lot boundaries;
- Geometric details;
- Design levels at appropriate points;
- Design grades and vertical curve details around curve radials;
- Drainage and other services;
- Right-of-Way Plans

#### 4.8 Deliverables

The Consultant shall develop and submit the design in stages according to the following schedule:



Preliminary (30%) Design, shall be submitted within 60 days from contract award;

Detailed (60%) Design, shall be submitted within 90 days from contract award;

Detailed & Corrected (90%) Design, shall be submitted within 120 days from contract award;

Final 100% Design shall be submitted within 135 days from contract award.

The Consultant may propose an alternative design (schedule) program in his Proposal. If an alternative program (schedule) is proposed and accepted by the Client, the successful consultant will be required to adhere to the deliverable dates in his proposal. The total performance period said above, will not be extended to accommodate an alternate design program (schedule).

The Consultant shall develop and submit a design work program for review within 7 days of the date of contract award.

The drawings, calculations, reports, and all other submittal items related to the Consultant's assignment shall be prepared using metric units of measurement and following the survey & design specifications.

The design documents shall be packaged and submitted to UNOPS for review as listed below:

30% Design Submittal (2 sets A3 size paper copies of drawings, 1 set of reports, analysis, 1 CD with all Documents) including:

- Design Criteria
- Topographical Survey
- Traffic Count
- Geotechnical Report
- Pavement Design (based on actual traffic count)
- Outline of Technical Specifications
- Alignment Drawings
- Typical Cross Section Drawings

60% Design Submittal (2 sets A3 size paper copies of drawings, 1 set of reports, analysis, 1 CD with all documents) including:

- Design Analysis/Calculations
- Alignment & Profile Drawings
- Design Cross Sections at 20m intervals
- Typical Details Drawings
- Structural and Drainage Design
- Hydrology and Hydraulic Report
- Environmental Report (considerations)
- Technical Specifications
- Bill of Quantities

90%-95% Design Submittal (2 sets A3 size paper copies of drawings, 1 set of reports, analysis, 1 CD with all documents) including:

- Draft Final Drawings
- Draft Final Technical Specifications
- Draft Final Design Analysis/Calculations
- Draft Final Reports
- Draft Final Bill of Quantities



100% Design Submittal for Construction (3 sets of A3 size hard copies of drawings, 2 sets of all survey and design reports, 2 CDs with all survey and design documents) incorporating all corrections and comments provided by UNOPS following the engineering reviews including:

- Final Drawings
- Final Technical Specifications
- Final Design Analysis/Calculations
- Final Reports
- Final Bill of Quantities
- Engineer's Cost Estimate

## 5.0 Other requirements

#### 5.1 Commencement and Duration of Services

The Consultant shall commence the Services immediately following signature of the Service Contract with UNOPS. The Services will have a total duration of five (5) months.

#### 5.2 Consultant's Site Office

The Consultant shall establish its Project Office in Herat for the entire duration of services to ensure appropriate and efficient coordination with the regional MPW and UNOPS staff.

#### **5.3** Consultant's Personnel

The consulting services shall be carried out by National consultants. The Consultant's staff should have extensive experience in survey and design of roads, bridges and associated drainage infrastructure. Surveyors and Design Engineers must have a verifiable engineering degree and professional background in their country of practice.

Minimum requirements to the composition of Consultant's project team and their staff qualification are provided in the below table:

#### Consultant's Survey and Design Team

<b>Description of Staff</b>	Level of Qualification	Years of professional experience (minimum)
Chief Design	BSc. Engineering/ MA	2 years' experience as a design team leader,
Engineer/Project	Project Management	5
Manager		years of experience in road design
Road Design	Min. BSc Civil	3 years in road design and 1 year in general
Engineer	Engineering	construction implementation
Structural Design	Min. BSc Civil	3 years in road design and 2 year in bridge
Engineer	Engineering	construction implementation
Hydrologist	Engineering/Hydraulics	2 years in hydrology, hydraulics and 1 year
		in general river training engineering.
CAD Engineer	Engineering/CAD	2 years of CAD drafting
Environmental /	Engineering/Environment	2 years in environmental and social studies,
Social Specialist		knowledge of WB and ESMF required
Geotechnical	BSc. Engineering	3 years in material engineering & QA/QC,
Engineer/Materials		1 year in general construction



Engineer		implementation
Surveyor	BSc.	4 years in survey and landscaping
	Engineering	
Survey helper	Engineering/Construction	1year experience in helping survey team

Good knowledge of spoken and written English by the Consultant's key staff is essential. The Consultant shall include CVs of all their key staff proposed for this project.

#### 5.4 Facilities to be Provided by the Consultant

The Consultant shall ensure that its project staff are adequately supported and equipped. In particular the Consultant shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable its experts to concentrate on their primary responsibilities. The Consultant must ensure that its employees are paid in a timely manner.

#### 5.5 Cost and Payment of Consultant's Services

The Consultant shall meet the full operational costs of its survey and design teams including all travels, remuneration, insurance, emergency medical aid, accommodation, offices and facilities, communications and all that is necessary for the proper operation of the teams.

Costs shall include administrative and technical support from the Consultant's Head Office.

Payment to the Consultant shall be made on the basis of monthly invoices submitted by the Consultant to UNOPS and in accordance with actual progress of the consultancy works as certified by UNOPS.

#### 5. 6 Quality Assurance

UNOPS will perform a quality assurance review of the Consultant's work to confirm that proper criteria, regulations, laws, codes, principles and professional procedures have been used. UNOPS will review the work of consultants during each phase of design and return comments in writing.

## 5.7 Environmental and Social Safeguard

The project has to comply with the requirements for World Bank Safeguard Policy and Afghanistan Environmental Impact Assessment Regulation, in line with this policy has developed and Environmental and Social Management Framework (ESMF). The consultant has to familiarize itself with the ESMF and prepare an environmental and social management plan (ESMP) based on the environmental and social assessment of the individual sub projects. Adequate consultation with the beneficiaries and the project affected persons (PAPs) have to carried out in accordance with the NRAP's consultation manual to establish the level of project impact and formulate an appropriate mitigation measures, which in turn inform the preparation of a sound management plan. The rehabilitation works should be carried out in strict adherence to the ESMP, which may be

The rehabilitation works should be carried out in strict adherence to the ESMP, which may be modified to suit field conditions. The consultant is responsible as part of its on-site supervision duties to ensure the ESMP is implemented by the respective contractors.

The consultant should carry out the following tasks at a minimum to address the project's safeguard requirements:

- 1. Public announcement, dissemination of project information and consultation process according to Community Consultation Manual
- 2. Environment and Social Assessment through screening checklist
- 3. Develop Environment and Social Management Plan (ESMP)
- 4. Monitoring plan for mitigation measures
- 5. Alignment Details for Disclosure
- 6. Develop Stripe Map that illustrate and show Project Affected persons (PAPs)
- 7. Verification of Ownership of Land
- 8. Resettlement Action plan (if require)



#### 9. Safety and health plan

- 10. Consider gender mainstreaming and consultation during project survey, design and construction supervision
- 11. Ensure that community representatives are mobilized in the establishment of a Social Inclusion Committees (SIC) and security Shuras.
- 12. Ensure that all relevant socio-economic data on target communities is collected and consolidated
- 13. Supervise the implementation of environmental mitigation measures as proposed in ESMP
- 14. Supervise the progress in the implementation of construction safety and health plan
- 15. Supervise that the project activities will not put significant adverse impacts on environment and human health.

#### 5.8 Site Visits

The Consultant shall make site visits the project site to verify the 30% design data that has been prepared. A follow-up joint UNOPS and Consultant team site visit will be conducted during the (60%) Design Phase. UNOPS will be notified of these site visits well in advance of their occurrence. Reports summarizing the conditions observed, personnel contacted, and data gathered during the visits shall be prepared and included in the Design Documentation Report.

## **5.9** Meetings/Conferences

The following is a list of meetings and conferences the Consultant shall attend. The consultants' representative required to attend these conferences as defined below. The exact location, date, and time of each conference will be established by UNOPS and communicated to the Consultant in advance.

**Initial Technical Coordination Meeting:** The Consultant will attend a one day technical coordination meeting during the concept design phase.

**60% Design Review Conference:** A one-day 60% Design Review Conference will be held at UNOPS office. The consultants' Project Manager and key designers shall attend the conference.

**90% Design Review Conference:** A one-day 90% Design Review Conference will be held at UNOPS office. The consultants' Project Manager and key designers shall attend the conference. The consultant shall take notes and prepare minutes for all meetings and conferences attended during design.

**100% Design Review Conference:** A one-day 90% Design Review Conference will be held at the Ministry of Public Works office. The UNOPS, Consultant's and MoPW key technical staff shall attend the conference. The consultant shall take notes and prepare minutes for all meetings and conferences attended during design.

Copies of all meeting/conference minutes will be included in the Design Documentation Report.

# 5.10 Consultant's Responsibility after Design Completion

The consultant is required to support UNOPS and MoPW, should errors or omissions in the design documents create problems in bidding or administering the contract for construction. As needed, the Consultant will clarify the design intent and correct any errors or omissions in the original documents. The corrections shall be done in a timely manner at no additional cost to UNOPS and/or MoPW. The Consultant shall incorporate any introduced changes into the original drawings and/or CADD drawings when requested to do so. Also, during the bidding period, the Consultant is required to assist in answering all bidders' inquiries pertaining to the design. If clarifications are required, the Consultant will provide the requested information. The Consultant shall not receive or respond to any direct inquiries from bidders.

#### **5.11 Reporting Schedule**

Apart from the 30%, 60%, 90% and 100% design submission requirements mentioned above the Consultant will prepare and submit to UNOPS the following reports:



- 1. Within two weeks of commencement of the assignment: A short Inception Report which includes the consultants detailed work program (including detailed survey and design methodology and arrangements);
- 2. Initial survey report and alignment feasibility report
- 3. Monthly reports to detail the physical and financial progress of the Consultant's activities
- 4. Ad-hoc reports as required by UNOPS

Project No. 00075841 - Shindand Road Construction Project



TO: United Nations Office for Project Services Afghanistan Operations Centre Kabul, Afghanistan

Dear Sir/Madam:

Having examined the Solicitation Documents, the receipt of which is hereby duly acknowledged, we the undersigned, offer to supply the required services for the sum as may be ascertained in accordance with the Price Component attached herewith and made part of this proposal.

We undertake, if our proposal is accepted, to commence and complete delivery of all items in the contract within the time frame stipulated.

We understand that you are not bound to accept any proposal you may receive and that a binding contract would result only after final negotiations are concluded on the basis of the Technical and Price Components proposed.

Dated this	day of	20
		Signature
		(in the Capacity of)

Duly authorized to sign proposal for and on behalf of:



# ANNEX III: DRAFT OF CONTRACT FORM

Date \_\_\_\_\_

Dear Si	<sup>-</sup> /Madam,
Ref.:	/ [INSERT PROJECT NUMBER AND TITLE]
engage y NAME consulti	ted Nations Office for Project Services (hereinafter referred to as "UNOPS"), wishes to your [company/organization/institution], duly incorporated under the Laws of [INSERT OF THE COUNTRY] (hereinafter referred to as the "Consultant") in order to perform ng services in respect of [INSERT SUMMARY DESCRIPTION OF THE SERVICES] fter referred to as the "Services"), in accordance with the following Contract:
1 Con	ntract Documents
T L in co	nis Contract is subject to the UNOPS General Conditions for Professional Services, [INSERT HE CURRENT VERSION NUMBER AND DATE FROM THE DOCUMENT IBRARY], attached hereto as Annex I. The provisions of such Annex shall control the terpretation of this Contract and in no way shall be deemed to have been derogated by the ontents of this letter and any other Annexes, unless otherwise expressly stated under section 4 of this letter, entitled "Special Conditions".
do	ne Consultant and UNOPS also agree to be bound by the provisions contained in the following ocuments, which shall take precedence over one another in case of conflict in the following oder:
a	) this letter;
b	UNOPS' Request for Proposal, reference, dated and subsequent amendments and clarifications, assumed to be known to both parties, including the Statement of Work / Terms of Reference, attached hereto as Annex II;
c)	the Consultant's technical proposal [ref, dated], as clarified by the agreed minutes of the negotiation meeting [dated], both documents not attached hereto but known to and in the possession of both parties.

# **2** Obligations of the Consultant

the subject of this Contract.

1.3

2.1 The Consultant shall perform and complete the Services described in Annex II with due diligence and efficiency and in accordance with the Contract.

All the above shall form the Contract between the Consultant and UNOPS, superseding the contents of any other negotiations and/or agreements, whether oral or in writing, pertaining to



2.	2	The C	onsultant	shall	provide	the ser	vices of	f the 1	folloy	ving k	ev n	ersonne	1:
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<u>Name</u>	<b>Specialization</b>	<u>Nationality</u>	Period of service
••••		•••••	•••••
••••	•••••		•••••

- 2.3 Any changes in the above key personnel shall require prior written approval of the Director, [.....] RO/OC UNOPS.
- 2.4 The Consultant shall also provide all technical and administrative support needed in order to ensure the timely and satisfactory performance of the Services.
- 2.5 The Consultant shall submit to UNOPS the deliverables specified hereunder according to the following schedule:

# [LIST DELIVERABLES] [INDICATE DELIVERY DATES]

e.g.

Progress report	//
	//
Final report	//

- 2.6 All reports shall be written in the English language, and shall describe in detail the services rendered under the Contract during the period of time covered in such report. All reports shall be transmitted by the Consultant by [MAIL, COURIER AND/OR FAX] to the address specified in 9.1 below.
- 2.7 The Consultant represents and warrants the accuracy of any information or data provided to UNOPS for the purpose of entering into this Contract, as well as the quality of the deliverables and reports foreseen under this Contract in accordance with the highest industry and professional standards.

## **OPTION 1 (FIXED PRICE)**

#### 3 Price and Payment

- 3.1 In full consideration for the complete and satisfactory performance of the Services under this Contract, UNOPS shall pay the Consultant a fixed contract price of [INSERT CURRENCY & AMOUNT IN FIGURES AND WORDS].
- 3.2 The price of this Contract is not subject to any adjustment or revision because of price or currency fluctuations or the actual costs incurred by the Consultant in the performance of the Contract.



- 3.3 Payments effected by UNOPS to the Consultant shall be deemed neither to relieve the Consultant of its obligations under this Contract nor as acceptance by UNOPS of the Consultant's performance of the Services.
- 3.4 UNOPS shall effect payments to the Consultant after acceptance by UNOPS of the invoices submitted by the Consultant to the address specified in 9.1 below, upon achievement of the corresponding milestones and for the following amounts:

MILESTONE	AMOUNT	TARGET DATE
Upon		//
		//

## **OPTION 2 (COST REIMBURSEMENT)**

## 3. Price and payment

- 3.1 In full consideration for the complete and satisfactory performance of the Services under this Contract, UNOPS shall pay the Consultant a price not to exceed [INSERT CURRENCY & AMOUNT IN FIGURES AND WORDS].
- 3.2 The amount contained in 3.1 above is the maximum total amount of reimbursable costs under this Contract. The Breakdown of Costs in Annex [INSERT ANNEX NUMBER] contains the maximum amounts per cost category that are reimbursable under this Contract. The Consultant shall reflect in his invoices the amount of the actual reimbursable costs incurred in the performance of the Services.
- 3.3 The Consultant shall not do any work, provide any equipment, materials and supplies, or perform any other services which may result in any costs in excess of the amount under 3.1 or of any of the amounts specified in the Breakdown of Costs for each cost category without the prior written agreement of the Director, [.....] RO/OC, UNOPS.
- 3.4 Payments effected by UNOPS to the Consultant shall be deemed neither to relieve the Consultant of its obligations under this Contract nor as acceptance by UNOPS of the Consultant's performance of the Services.
- 3.5 The Consultant shall submit invoices for the work done every [INSERT PERIOD OF TIME OR MILESTONES].

OR

- 3.5. The Consultant shall submit an invoice for [INSERT AMOUNT AND CURRENCY OF THE ADVANCE PAYMENT IN FIGURES & WORDS] upon signature of this Contract by both parties and invoices for the work done every [INSERT PERIOD OF TIME OR MILESTONES].
- 3.6 Progress and final payments shall be effected by UNOPS to the Consultant after acceptance of the invoices submitted by the Consultant to the address specified in 9.1 below, together with whatever supporting documentation of the actual costs incurred is required in the Breakdown of



Costs or may be required by UNOPS. Such payments shall be subject to any specific conditions for reimbursement contained in the Breakdown of Costs.

# 4 Special conditions

- 4.1 The advance payment to be made upon signature of the contract by both parties is contingent upon receipt and acceptance by UNOPS of a bank guarantee for the full amount of the advance payment issued by a Bank and in a form acceptable to UNOPS.
- 4.2 The amounts of the payments referred to under section 3.6 above shall be subject to a deduction of [INSERT PERCENTAGE THAT THE ADVANCE REPRESENTS OVER THE TOTAL PRICE OF THE CONTRACT] % (... percent) of the amount accepted for payment until the cumulative amount of the deductions so effected shall equal the amount of the advance payment.

4.3	Owing to [], Article(s) [] of the General Conditions in Annex I shall be amended to read/be deleted.
	OR

4.1 No special conditions shall apply.

#### 5 Submission of invoices

5.1	An original invoice shall be submitted by mail by the Consultant for each payment under the Contract to the following address:

5.2 Invoices submitted by fax shall not be accepted by UNOPS.

## 6 Time and manner of payment

- 6.1 Invoices shall be paid within thirty (30) days of the date of their receipt and acceptance by UNOPS.
- 6.2 All payments shall be made by UNOPS to the following Bank account of the Consultant:

[NAME OF THE BANK]
[ACCOUNT NUMBER]
[ADDRESS OF THE BANK]

## 7 Entry into force. Time limits.

7.1 The Contract shall enter into force upon its signature by both parties.



- 7.2 The Consultant shall commence the performance of the Services not later than [INSERT DATE] and shall complete the Services within [INSERT NUMBER OF DAYS OR MONTHS] of such commencement.
- 7.3 All time limits contained in this Contract shall be deemed to be of the essence in respect of the performance of the Services.

#### **8** Modifications

8.1 Any modification to this Contract shall require an amendment in writing between both parties duly signed by the authorized representative of the Consultant and the Director, [.....] UNOPS.

#### 9 Notifications

9.1 For the purpose of notifications under the Contract, the addresses of UNOPS and the Consultant are as follows:

For the UNOPS:

[INSERT NAME OF RO/OC DIRECTOR]
Director
[RO/OC]
UNOPS
Address
Ref/
[INSERT CONTRACT REFERENCE & NUMBER]
Phone:
Fax:
Email:
For the Consultant:
[Insert Name, Address, Phone and Fax/Email]

## 10 Good Faith

10.1 The Parties undertake to act in good faith with respect to each other's rights and obligations under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.



If the above terms and conditions meet with your agreement as they are typed in this letter and in the Contract Documents, please initial every page of this letter and its attachments and return to this office one original of this Contract, duly signed and dated.

Yours sincerely,
[INSERT NAME OF THE RO/OC DIRECTOR]
Director
[] RO/OC
For [Insert name of the company/organization]
Agreed and Accepted:
Signature
Name
Title
Date



#### **ANNEX I**

# UNOPS GENERAL CONDITIONS OF CONTRACT FOR PROFESSIONAL SERVICES

http://www.unops.org/english/whatweneed/Pages/Guidelinesforsuppliers.aspx

#### **ANNEX II**

# STATEMENT OF WORK

(The Statement of Work should be prepared in accordance with the instructions contained in the UNOPS Procurement Manual)

# ANNEX [INSERT ANNEX NUMBER]

## **BREAKDOWN OF COSTS**

(A model breakdown of costs is under development)

In the event of a contract the UNOPS General Conditions for Contracts for Professional Services will apply. They are available at:

http://www.unops.org/english/whatweneed/Pages/Guidelinesforsuppliers.aspx