

Title	Highway Geometric Design Senior Specialist
Vacancy Number	MoPW/SRTAP/PSC/1400-56
Ministry	Ministry of Public Works
Organization	Program for Service life enhancement and construction cost reduction of roads (PSC)
Project	Sustainable Reform & Technical Assistance Project
Duty Station	Kabul
Duration	1 year (with the possibility of extension)
No of Jobs	1
Nationality	Afghan
Sex	Male/Female
Salary Range	NTA Salary Scale (Grade B3 – B5)
Announcing Date	22 May 2021
Closing Date	03 June 2021
Job Type	Engineering
Shift	Full Time
Job Status	Sourcing
Experience	Specific 5 years, General 8 years

**Background:**

The Ministry of Public Works (MoPW) is responsible for the planning, design, procurement, implementation, monitoring, and maintenance of the various transportation infrastructure projects such as roads, bridges, and its relevant drainage and retaining/protection structures in the government of the Islamic Republic of Afghanistan.

On a mission to reduce project costs and extend the service life of road infrastructures in Afghanistan, the MoPW aims to embark on a project to *develop a set of new criteria for the design of roads and highway infrastructures* in compliance with national and international standards, country's climatic and environmental conditions, economic situation, safety requirements, and the available construction technology. The adoption of newly developed design criteria will enhance safety, mobility, and sustainability when designing.

For the effective accomplishment of this purpose, the ministry intends to establish a team of well-versed and highly experienced professionals that will work together to revise the available *Interim Road and Highway Standard* and substituting it with the newly developed design criteria for roadways and highway infrastructures with sufficient quality to be adopted by the MoPW and other relevant highway agencies and contractors functioning in Afghanistan. The developed design criteria will encompass the

essential design criteria, including but not necessarily limited to road functional/administrative classification system, sets of design references, guidelines for traffic characteristics, sight distance, horizontal/vertical alignment, cross-sectional elements, rest/parking facilities, ramps, drainage facilities, and structures, retaining structures, intersection types, pavement types, pavement markings, traffic signs, and road furniture, etc.

### **Scope of Work/Job Summary:**

The MoPW is actively seeking a suitable candidate to fill the position of *Highway Geometric Design Senior Specialist* and function as a member of the team for Developing the Design Criteria. The incumbent will work under the direct supervision, guidance, and direction of the International SME and leadership of the Team Leader/ Project Manager. He/ She will utilize their qualifications and experience in Geometrics and Highway Design Engineering to work as a part of expert engineers in developing a comprehensive and well-compiled set of design criteria for road projects in Afghanistan that is aligned with both the country's needs and the regional/international standards. The ideal candidate must have a good understanding of international/local standards, the country's traffic conditions, climatic situation, practiced construction technologies, and workforce. He/ She should also demonstrate high-level skills in modeling highways and civil engineering design of roadways, site earthworks, drainage, geometrics clash detection and show the ability to develop and interpret detailed designs.

The potential candidate will remain active through all project phases and work in close coordination with the senior management in the MoPW. He/ She must directly report to the Team Leader/ Project Manager of the team.

### **Duties & Responsibilities:**

The selected candidate will focus on the development of Geometric Design Criteria whose duties and responsibilities will include but not be limited to:

- Develop a comprehensive, accurate, and acceptable set of design criteria for use by the MoPW and other relevant agencies, consultants, and contractors;
- Provide technical assistance in all relevant areas of highway design when compiling the design criteria;
- Perform a technical and economic study of the existing design standards, design requirements, and specifications;
- Demonstrate a comprehensive knowledge of the country's road network and routes, traffic conditions on the network, and geographical/climatic conditions;
- Perform needs assessments through field studies and regular meetings with provincial engineers and stakeholders;
- Evaluate and compare the proposed procedures for geometric design;
- Ensure the adherence of new design criteria with internationally recognized design standards and with the consideration of local climatic conditions, economic situation, and available construction technologies;
- Ensure the inclusion of all phases of roadway geometric design within the newly developed design criteria; i.e., from concept through construction;
- Ensure the criteria entails the safety standards and guidelines for placing road furniture elements;
- Provide necessary technical expertise to the team relating to geometric road design for both urban and rural roadway projects;
- Conduct ad hoc site surveys, field investigations, and feasibility studies for data collection and criteria development;
- Plan and coordinate the activities for the development of design criteria to ensure compliance to procedures and regulations as required by the MoPW;
- Develop specific design criteria or procedures or process which establishes geometric design values for individual projects or groups of projects;
- Assist the team in disseminating and publishing the finalized design criteria draft;
- Successfully interface with experts from a range of other disciplines (traffic, civil, surveying,

- planning, geotechnical, etc.) to compile a comprehensive set of design criteria;
- Develop solutions to a wide range of difficult technical highway geometric design and implementation issues and propose effective approaches and solutions;
  - Formulate guidance for performing social-economic analysis of the respective design procedures;
  - Assist with the provision of social-economic analysis of the respective road designs. This entails using Cost-Benefit Analysis (CBA) modeling processes;
  - Complete all work in conformance with the MoPW policies, guidelines, and core values;
  - Assist the team in drafting the criteria and oversee the writing quality;
  - Develop and maintain effective working relationships with seniors and the design criteria team and provide the necessary advice and support to the team;
  - Assist the Project Manager in reviewing/preparing the progress reports (weekly, monthly, quarterly);
  - Convene and attend technical meetings with stakeholders and team members on regular basis;
  - Ensure that the language used in draft design criteria is clear, simple, and focused; and
  - Other functions related to developing design criteria required or assigned by the seniors.

### **Skills & Competencies:**

- Acquaintance with regional and international design standards and knowledge of AASHTO and Indian Road Congress / MoRTH guidelines;
- Conversant with highway design software's Road Estimator, MX-Road, Civil3D, AutoCAD, and MS Office;
- Detail-oriented with strong skills in Infrastructure analysis;
- Must be familiar with the current practices in the field of highway designing;
- Able to draft and develop specifications/ special provisions, design quantities, cost estimates, and other project-related documents;
- Highly motivated and enthusiastic team player with a strong desire to succeed;
- Able to manage conflicting priorities; and
- Demonstrate leadership in handling multidisciplinary teams.

### **Job Requirements:**

- A bachelor's degree holder in Civil engineering or a master's in Highway/Transportation Engineering with specialization in planning and design of transportation projects;
- Having 8 years of general experience focused on planning, design, engineering, estimation, contract documentation, monitoring of highways and bridge projects, etc.;
- Having atleast 5 years of specific experience in geometric design of highways;
- Must be fully familiar with the currently practiced design standards and proposed criteria for highways in Afghanistan and have the knowledge of methodology concerning design criteria development;
- Must have led several high-profile highway projects. Besides, he/she must also demonstrate robust technical writing and English communication skills.
- Proven organizational and problem-solving skills;
- Able to travel to the remote area all over Afghanistan, collect required data and work as part of a team;
- Perform any other job related duties and tasks as assigned by the team leader or senior management.

### **Required Documents:**

- CV with a cover letter for the relevant position;
- Copy of verified Degree by the Ministry of Higher Education;
- Copy of verified Afghan ID Card (Tazkera) or Passport;
- Copy of verified last Posting Contract; and

- Copy of other relevant documents that support the application.

### **Submission Guideline:**

Interested candidates are requested to forward their applications, detailed CV and other required documents to **jobs.mopw@yahoo.com** indicate the vacancy number (**MoPW/SRTAP/PSC/1400-56**) and the post title (**Highway Geometric Design Senior Specialist**) in the subject line when applying by email to the Human Resource Unit – Sustainable Reform and Technical Assistance Project of Ministry of Public Works (MoPW) at Kabul, Afghanistan.

**Address:** SRTAP Office, Railway Building, Kabul-Jalalabad Rd., opposite KMTC, MoPW, Kabul, Afghanistan.

Note: Only short-listed candidates will be contacted.