



PAPUA NEW GUINEA PUBLIC SERVICE

JOB DESCRIPTION



Form OD2.7

1. IDENTIFICATION

AGENCY: Works & Highways	SYS. POSN. NO:	REF. NO: 60ESHE02	
WING: Network Planning, Design & Standards	DESIGNATION/CLASSIFICATION: Principal Roads Engineer – Grade 15		
DIVISION: Engineering Services & Standards	LOCAL DESIGNATION: Principal Roads Engineer		
BRANCH: Highway Engineering	REPORTING TO: Assistant Secretary – Highway Engineering Grade 17	SYS. POS. NO:	REF. NO: 60ESHE01
SECTION: Technical	LOCATION: Headquarters – Boroko		

HISTORY OF POSITION

FILE REF.	DATE OF VARIATION	DETAILS
111 - 60 - A00	10/12/2021	Re-no, Re-design

2. PURPOSE

Coordinate, advice and manage all road projects involved by the design branch for a safe and effective integrated road network programs on all national, provincial and district road network programmes funded through the National Governments Infrastructural Development Programmes in Papua New Guinea.

3. DIMENSIONS

- 3.1** Accountable to Assistant Secretary (HEB) on engineering and technical issues of road implementation programs that involves Feasibility Studies, Investigations, Scoping, Design and Documentation to implement the National Governments Infrastructural Development Programmes on Road Transport (Roads & Bridges) Network in Papua New Guinea.
- 3.2** Liaise through Assistant Secretary (HEB) to advise DoW field staff in the provinces on road design, documentation and other related issues of the road projects involved by the Design Branch.
- 3.3** Coordinate and manage existing hardware equipment including existing and new road design software's, other stationary materials/supplies for improved performance and implementation of the National Road Transport Network in Papua New Guinea.

4. PRINCIPLE ACCOUNTABILITIES

- 4.1** Accountable to Assistant Secretary (HEB) to ensure all road design programmes involved by the design branch are implemented on all sixteen (16) priority national roads identified under the Medium-Term Transport Development Plans (MTTDP) and National Road Network Strategy (NRNS) programmes including other sub-national roads throughout the country.
- 4.2** Through Assistant Secretary (HEB) ensure that all road design guidelines and policy requirements are complied, when these road projects are designed and constructed. This includes the existing roads that are open to public use throughout the country.
- 4.3** Through Assistant Secretary (HEB) ensure that all road approaches to bridge crossings and including cross drainage culvert crossings safety guard rails are installed/replaced with the approved "Bull Nose" end terminal through all sixteen (16) priority national roads and other sub-national roads throughout the country.
- 4.4** Through Assistant Secretary (HEB) assist to arrange road design software's and other related training requirements for implementation of safer road projects for all road users throughout the country.

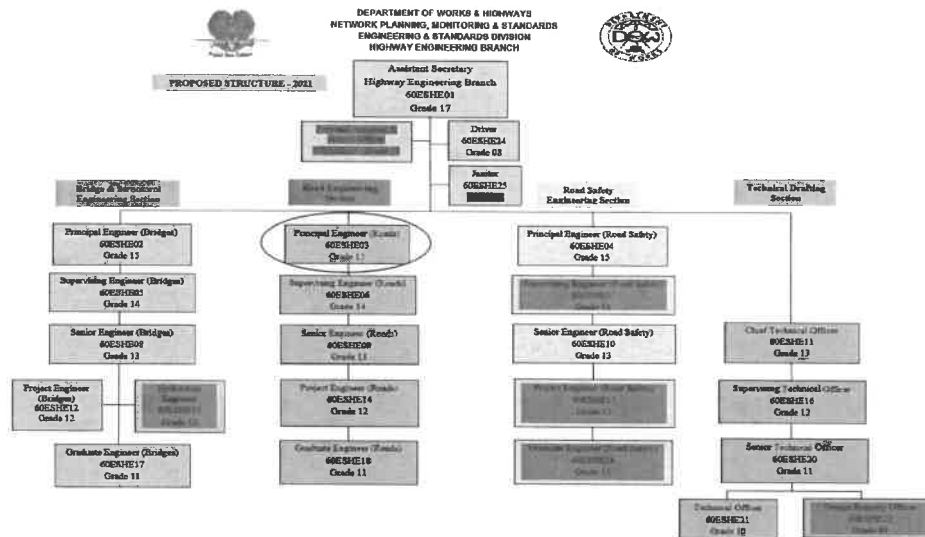
- 4.5 *Through Assistant Secretary (HEB) to revise and improve road design standards and technology practices for design, documentation and implementation of road programmes as stated in the annual work plans.*
- 4.6 *Through Assistant Secretary (HEB) administer and ensure Annual Budget Allocations on Recurrent Budget are sufficient to purchase office equipment and materials required for the smooth operation of the design branch.*

5. MAJOR DUTIES

- 5.1 *Coordinate and manage road design section involved in all road design & documentation functions & tasks on various road projects involved by the design branch in line with the MTTDP's and NRNS's programmes.*
- (I) Develop and implement all relevant road design in close consultation with bridge section for the implementation road network programmes.*
- (II) Provide advice on road design requirements and classifications standards to other line Departments and Agencies.*
- (III) Prepare consultancy design briefs for engagement of consultants to assist DoW with its design functions when required.*
- (IV) Develop programmes and strategies for successful completion of road projects and implementation of the road network plans & systems.*
- 5.2 *Coordinate and monitor the road section staff performances, taking appropriate corrective measures to ensure efficient and effective performances of staff are achieved.*
- 5.3 *Ensure implementation of all Government, Department and Divisional Policies within road section and the design branch are implemented.*
- 5.4 *Advise and inform Assistant Secretary (HEB) on operational activities involved and progress of road section within the design branch.*
- 5.5 *Participate in the management of the design branch by providing relevant information and advice to Assistant Secretary (HEB) when required.*
- 5.6 *Through Assistant Secretary (HEB) liaise with other line departments and organizations on relevant road design specifications and standards where applicable.*
- 5.7 *Assist with training and development of staff through Human Resources Development Branch (HRDB) through Assistant Secretary (HEB).*
- 5.8 *Other relevant duties and tasks as directed by the Assistant Secretary (HEB).*

6. NATURE AND SCOPE

This position is within the management level of the Design Branch and reports directly to the Activity Head (Assistant Secretary – Highway Engineering Branch) as depicted in the structural framework of the branch.



6.1 WORKING RELATIONSHIP

(a) Internal

Reporting through Assistant Secretary (Highway Engineering Branch) to liaise with other Branches, Divisions within Department of Works Headquarters and Provincial Establishments when required to implement all road projects involved by the design branch.

(b) External

Liaise through Assistant Secretary (HEB) with other line Departments, Authorities, Agencies, Consultants, Members of Parliament and General Public on technical issues relating to DoW approved design standards, specifications and road safety awareness programs in Papua New Guinea.

6.2 WORK ENVIRONMENT

Coordinate and manage through Assistant Secretary (HEB) to implement all road programs relating to engineering, technical design specifications and standards on behalf of Department of Works (DoW) for the National Government of Papua New Guinea on Road Transport (Roads & Bridges) network for a safe and easy accessibility for the people of Papua New Guinea.

7. CONSTRAINTS FRAMEWORK AND BOUNDARIES

Rules/procedures

- The National Government through Department of Transport's National Road Network Strategy (NRNS) Policy Guidelines for Road Transport Networks for upgrading and rehabilitation works has identified the sixteen (16) priority road network sections including the missing links in the Medium-Term Transport Development Programmes (MTTDP's).
- Department of Works (DoW) shall be confined and limited to meet these policy guidelines as stated in the MTTDP and NRNS as a result when implementing these development projects.
- All engineering designs, documentation and Road Safety requirements shall be focused on these road networks within the country subject to annual development budget funding as a result of these policy guidelines.

Decision

- The Government through Department of Transport has the mandated role and obligation to decide and include other relevant sections of road network throughout

the country into MTTDP, NRNS and Sub-National Roads for implementing that will open accessibility to the rural population for economic and social developments.

- *This decision will not only alleviate poverty but also improve living conditions of the rural population through delivery of services such as health, education and other social improvements as well as agricultural developments.*

- **Recommendations**

- *It is recommended that other policy guidelines be developed to include other missing sections of road network and funding to be made available through the Department of National Planning and Monitoring (DNP&M).*

8. CHALLENGES

- *The current challenge with respect to this position is the recruitment of experience road design engineer to this position to support/perform the specific duties and tasks involved in order to produce the required outcomes and meet deadlines on the various road projects involved by the design branch.*
- *Young graduate engineers considered for this position will take years to train in order to gain confidence and experience required on various design options and applications practiced in bridge design and construction industry.*
- *The road designs in draft, preliminary and final design phases can be checked thoroughly at various stages of the design phase to ensure that TOR as well as approved design standards and specifications are complied with before approval of the design is granted.*
- *The design branch has been unable to attract and employ experienced and qualified engineers for the last three (3) decades due to low salary and employment conditions which are governed by the Governments Public Service Remuneration conditions.*

9. QUALIFICATIONS, EXPERIENCES AND SKILLS

(a) Qualifications

- *Appropriate university degree in Civil engineering studies from a recognized university.*
- *Registered member of Institute of Engineers – Papua New Guinea (IEPNG).*

(b) Knowledge

- *Significant experience in design and documentation of variety of road projects ranging from rural to urban applications.*
- *Significant knowledge on various types of road design software's used for road engineering applications.*
- *significant knowledge on types of road construction standards/specifications to comply with the approved DoW design & construction standards.*

(c) Skills

- *Significant experience in various road design concepts and practices from Rural to Urban setting requirements to ensure the approved DoW road design guidelines and policies are complied with when implementing these road programmes.*

(d) Work Experience

- *Minimum experience of ten (10) years in road engineering applications on design, documentation and construction phases as well as safety requirements.*