



**PAPUA NEW GUINEA PUBLIC SERVICE
JOB DESCRIPTION**

1. IDENTIFICATION

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| AGENCY: DEPT OF WORKS | SYS.POSN.NO: | REF.NO: 60ESMST03 |
| WING: NETWORK PLANNING, DESIGN & STANDARDS | DESIGNATION/CLASSIFICATION: PRINCIPAL ENGINEER – MATERIAL GRADE 15 TESTING STANDARDS STH/HILDS | |
| DIVISION: ENGINEERING SERVICES & STANDARDS | LOCAL DESIGNATION: PRINCIPAL ENGINEER - MATERIALS TESTING & STANDARDS S/H | |
| BRANCH: MATERIALS, SCIENCE & TECHNOLOGY | REPORTING TO : ASSISTANT SECRETARY - MST GRADE 17 | SYS.POS.NO: REF.NO: 60ESMST01 |
| SECTION: | LOCATION: HEADQUARTER - BOROKO | |

HISTORY OF POSITION

| FILE REF: | DATE OF VARIATION | DETAILS |
|------------------|--------------------------|------------------|
| 111-60-A00 | 10/12/2021 | RE-NO, RE-DESIGN |

2. PURPOSE

- 2.1 To provide overall geotechnical engineering services for the infrastructure and civil works
- 2.2 To manage overall operation of the materials testing laboratories
- 2.3 To co-ordinate and ensure quality control measures are maintained in the laboratories and in the construction of the roads and bridges throughout Papua New Guinea

3. DIMENSIONS

The position

- To oversee the function of the materials testing services in all four DoW Regional Laboratories and their provincial laboratories.
- Coordinates all materials testing services within the branch
- Ensure Quality is maintained in all process of materials testing engineering

4. PRINCIPLE ACCOUNTABILITIES

To co-ordinate or assist other engineering disciplines within the Department of Works under Design Service Division and other Government Departments, Statutory Bodies and Private sectors within the aspects of the materials testing services.

5. MAJOR DUTIES

- 5.1 Co-ordinate, direct and manage the overall activities of the Materials Testing Laboratories
- 5.2 Coordinate and direct the geotechnical and materials investigation for various projects and prepare technical reports.
- 5.3 Liaise with other engineering disciplines within the Department, other Government Departments, Statutory and manage the overall activity of four DoW Regional and their Provincial Laboratories in terms of Geotech and Materials testing services.
- 5.4 Co-ordinate and direct geotechnical and materials investigation for various projects and prepare the technical reports.
- 5.5 To ensure quality is maintained within the laboratories and the construction projects
- 5.6 Advice and give guidance on the implementation of Occupational Health and Safety principals within the Materials Testing Laboratories.
- 5.7 Liaise with other branches of the Department, Consultants and Contractors for the various projects in aspects of the geotechnical engineering and materials testing services.
- 5.8 Assist and participate in broad strategic planning and policy formulation for the Materials Science & Technology Branch functions
- 5.9 Develop and assist in staff training and development
- 5.10 Assist RLM and MTE in terms of the laboratories registration and standards and technical specification in aspects of various road products.

6. NATURE AND SCOPE

6.1 WORKING RELATIONSHIP

(a) Internal

Reporting to Assistant Secretary (MST), and liaising with other staff within the branch, the Division and the Department

(b) External

Liaising with Other Government Departments, Consultants and Contractors from private sector in aspect of various project matters

6.2 WORKING ENVIRONMENT

Technical and Administrative

7. CONSTRAINTS FRAMEWORK AND BOUNDARIES

- **Rules /Procedures**

All procedures in terms of laboratory testings and operation of the laboratory comply with all required DoW, PNG & International Standards

- **Decision**

Do make decisions in the running of all the geotechnical engineering and Materials

Testing Activities.

- **Recommendations**

Make recommendations on matters related to geotechnical engineering and the operation of the laboratory and the branch.

8. CHALLENGES

- Strategize and formulate new policy and guidelines in terms of improving on effectiveness and efficiency in providing services.
- Participate in the development of marketing strategy of the Roads Construction Technology & Branch.
- Public Service General Orders require all public sector employees to have a career plan in place – their respective departments and training should be linked to career paths. Contribute to the alignment of personal goals with divisional goals, in open communication and cooperation with management, and contribute to a work environment appropriate for the work and conducive to shared employee well-being.
- Contribute to identifying and acquiring the skills and knowledge to perform tasks to produce the desired output. Ensure that all RLM'S and Laboratory OIC are well equipped and vested with skills, knowledge and resources to effectively and efficiently undertaking their roles and responsibilities.

9. QUALIFICATIONS, EXPERIENCES AND SKILLS

(a) Qualifications

Appropriate recognized University Degree with Post Graduate qualification in Civil / Geotechnical / Materials Engineering are desirable though not essential and are a Registered Member to Institute of Engineers

(b) Values

Demonstrate and practice high levels of integrity, honesty, accountability, respect and wisdom and accept responsibility for one's own actions at all times.

(c) Knowledge

Some knowledge in all fields of engineering & architecture with significant knowledge in geotechnical engineering and geology is essential. Posses sound knowledge and the ability to understand technical standards and technical specification is essential.

- **Legislative knowledge:** General knowledge about the range of Acts, laws and policies governing the work of the Department of Works.
- **Values:** Demonstrate and practice high levels of integrity, honesty, accountability, respect and wisdom and accept responsibility for one's own actions at all times.
- **Zero tolerance of any unethical activity or behaviour:** Must be a positive role model on ethical behaviour for staff and demonstrate personal qualities of honesty, fairness and professionalism.

- **Computing:** Demonstrate substantial proficiency in the use of email and internet, in the application of software such as MS Word and MS Excel to perform complex tasks, and in the creation of presentations using MS PowerPoint.

(d) Skills

- Must be capable in administration management and supervision. A high level of verbal and written communication skills is essential. Must be computer literate and all described below
- **Leadership:** Lead and mobilise team with personal drive, commitment and resilience. Act as a positive role model on ethical behaviour for staff and demonstrate personal qualities of honesty, fairness, and professionalism. Provide strategic direction and inspire a sense of purpose and direction in the work area. Demonstrate insight and vision in providing solutions for a range of problems and ability to effectively implement change and innovation. Demonstrate the ability to motivate and lead diverse multi-stream teams to success. Be able to mentor senior staff and provide a positive learning environment to build staff capability and commitment and institutional strengthening.
- **Communications:** Highly effective written and oral communication, negotiation, persuasion and representation skills. Communicate with influence and civil awareness. Liaise and negotiate effectively internally and externally on complex matters. Demonstrated experience in leading and facilitating internal and external dialogues at a senior level and influencing group conclusions resulting in positive outcomes. Confident personal and well developed presentation skills.
- **Stakeholder relationships:** Demonstrated ability to build and sustain effective collaborative relationships with a network of key people, internally and externally. Deliver clear and effective advice to stakeholders. Represent and promote geotechnical services and ensure proactive engagement with all stakeholders
- **Strategic planning skills:** Contribute, as required, to identifying divisional and department strategic goals and work plans, and assist in the preparation of related documentation to support the meeting of these strategic goals and work plans.
- **Workload and time management:** Contribute to identifying team priorities, and share or allocate specific tasks within the team to ensure competing deadlines are met. Manage own tasks within this environment. Promote effective and efficient service delivery.

(e) Work Experience

- A minimum of ten (10) years practical experience in Geotechnical and Materials Engineering and Construction Materials Testing Laboratory is preferable. Proven experience in management is essential.
- A substantial knowledge of relevant work experience in administration and technical supervision. Demonstrate knowledge on laboratory materials (Soils, Rocks/aggregate and concrete) testing, field investigation and reporting.
- A relative experience in team building and teamwork and possess some knowledge to work well with colleagues and effectively managing team in a workforce is more preferable