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TRAFFIC DESIGN ENGINEER

ABOUT US

Our philosophy: Unbounded Engineering

We believe true engineering knows no limits, no boundaries between disciplines, no barriers to innovation, and no restrictions on who can lead or how far we can go.

At Zimile, we're redefining what's possible by breaking through constraints and building a future shaped by purpose, creativity, and bold thinking.

We believe that infrastructure is more than concrete and steel – it is the foundation for opportunity, dignity, and human connection. Since our inception in 2009, we have been on a mission to engineer solutions that build the nation while uplifting its people. Every road we pave, every pipeline we lay, and every community we serve reflects our commitment to reshaping how infrastructure serves society – **bridging gaps in access, equity, and resilience.**

Transport

We see transport not just as a means to move people and goods, but as the veins of a thriving society. Whether it's designing rural access roads or urban mobility corridors, our solutions are smart, sustainable, and tailored for impact. We engineer with empathy - ensuring our infrastructure connects people to schools, clinics, jobs, and each other.

Water

Water is life, and equitable access is non-negotiable. At Zimile, we deliver water infrastructure that goes beyond compliance. Our approach integrates sustainability, community engagement, and technical excellence. We harness innovation to protect, distribute, and manage this vital resource - ensuring future generations inherit a healthier, water-secure world.

Innovation

Innovation is in our DNA. Whether it's leveraging digital tools, modern construction methodologies, or data-driven planning, we are constantly reimagining how infrastructure is conceived and delivered. Our diverse teams co-create with clients and communities - bringing fresh perspectives to complex challenges, and unlocking smarter ways to build resilience.

PURPOSE OF THE ROLE

Location: Midrand

Department: Transport Unit

Reporting to: Business Unit Head: Transport

The Traffic Design Engineer will play a pivotal role in the planning, design, and optimisation of traffic and transportation systems in South Africa. This role requires technical expertise, innovative thinking, and commercial awareness to deliver integrated transport solutions that improve mobility, reduce congestion, and enhance road safety. The successful candidate will combine strong design and analytical skills with the ability to engage stakeholders, support business growth, and ensure projects are delivered to the highest professional standards.

KEY RESPONSIBILITIES

Technical & design

- Undertake traffic impact assessments (TIAs), road safety audits, parking studies, and detailed traffic flow modelling.
- Design traffic management schemes, geometric layouts, signalisation plans, and temporary traffic accommodation schemes.
- Develop concept, preliminary, and detailed designs for projects in urban, peri-urban, and rural contexts.
- Ensure designs comply with SANRAL, TMH, TRH, SADC, and municipal standards and guidelines.
- Integrate digital tools, smart mobility solutions, and sustainability principles into traffic engineering projects.
- Incorporate public transport, non-motorised transport (NMT), and travel demand management (TDM) into project designs.

Project Delivery & Implementation

- Prepare technical reports, drawings, tender documents, and contract documentation.
- Support contract administration (FIDIC, GCC), including tender evaluations, responding to RFIs, and reviewing shop drawings.
- Conduct site visits, surveys, and inspections to verify traffic analysis assumptions and monitor construction implementation.
- Ensure constructability and practical application of traffic management and geometric design solutions.

Client & stakeholder engagement

- Liaise with clients, municipalities, provincial authorities, and SANRAL on technical submissions, approvals, and regulatory compliance.
- Engage with town planners, developers, and environmental consultants to integrate land-use and transport planning.
- Participate in public participation processes, community meetings, and stakeholder forums as part of approval processes.
- Build and maintain strong client relationships through clear communication, responsiveness, and professional delivery.

Commercial & business development

- Support the preparation of fee proposals, project scoping, and resource planning.
- Contribute to business development by identifying opportunities, supporting bid submissions, and expanding service offerings.
- Demonstrate financial awareness in project delivery, ensuring profitability and adherence to budgets.

Team & professional development

- Collaborate with multidisciplinary teams, including civil, structural, transport, and environmental engineers, to deliver integrated solutions.
- Lead or contribute to small project teams, managing tasks, deadlines, and deliverables.
- Mentor and support junior engineers and technicians, fostering skills transfer and innovation within the team.

CORE COMPETENCIES

- Strong technical expertise, with the ability to innovate and develop practical, future-ready transport solutions.
- Analytical, data-driven problem-solving skills.
- Project management capability, with experience managing scope, schedules, budgets, and quality.
- Excellent communication, report writing, presentation, and negotiation skills.
- Commercial acumen with an understanding of consulting business drivers.
- A client-focused, collaborative team player with the ability to work independently and lead small teams.
- Resilient, adaptable, and able to perform under pressure in a consulting environment.

QUALIFICATION REQUIREMENTS

- Bachelor's Degree in Civil Engineering (or equivalent).
- Professional Registration with ECSA (Pr. Eng / Pr. Tech Eng), or working towards registration.
- 4–8 years' experience in traffic and transport design and analysis, with consulting engineering experience preferred.
- Proficiency in traffic engineering software such as SIDRA, VISSIM, Aimsun, and design tools including AutoCAD Civil 3D.
- Proven experience in traffic impact studies, road safety audits, geometric design, and traffic signal design.
- Knowledge of municipal and provincial approval processes, development planning integration, and regulatory frameworks.
- Familiarity with contract administration (FIDIC, GCC) and tender processes.
- Understanding of sustainable transport, public transport planning, NMT, and emerging mobility trends.

WHY JOIN ZIMILE?

- Be part of a forward-thinking, black-owned firm making a measurable impact on South Africa's infrastructure landscape.
- Work on diverse, high-profile transport infrastructure projects that demand innovation and creativity.
- A workplace culture that values bold ideas, embraces new technologies, and rewards forward-thinking approaches.
- Career growth opportunities through mentorship, continuous learning, and professional development support.
- A chance to be part of a team that is not only engineering roads and transport systems but actively engineering the future.

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