



Thulani
Mlilwana

PERSONAL DETAILS

Languages:	English; (Excellent), isiZulu (Excellent), French (Basic)
Prof. membership:	Engineering Council of South Africa - 201750724, International Water Association, Water Institute of Southern Africa
Years' Experience:	10 years
Countries worked in:	South Africa, Zimbabwe

CONTACT INFO

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ACADEMIC BACKGROUND

- Master of Business Administration, Gordon Institute of Business Science, South Africa, 2022
- Master of Engineering, Structural Engineering, University of Pretoria, South Africa, 2019
- Bachelor of Engineering, Civil Engineering, University of Pretoria, South Africa, 2016

PROFESSIONAL DEVELOPMENT

- Data Science for WASH | Open WASH Data Academy 2022
- Product Management | Coursera (IBM) 2023
- Corporate Finance: Environmental, Social, and Governance (ESG) | LinkedIn Learning 2024
- Urban Nature: Connecting Cities, Sustainability and Innovation | Coursera (Lund University) 2025

FIELD OF SPECIALISATION

Urban resilience specialist with experience advancing climate adaptation, water security and sustainable urban development in African Cities. A strategic leader in the design of scalable solutions, public-private partnerships, and large-scale project execution, with a focus on investment mobilisation and partnerships with international funding institutions. Adept at bridging engineering expertise and policy advocacy to drive inclusive urban planning to protect vulnerable communities. Committed to continuous learning and passionate about data-driven decision-making, transboundary collaboration, and inclusive climate adaptation.

WORK EXPERIENCE

July 2025 – present

PDG, Johannesburg, | South Africa
Consultant

Oct 2024 – Mar 2025

Tetra Tech | USAID Resilient Cities Limpopo | South Africa, Botswana, Mozambique
Deputy Chief of Party (Technical) & Water and Sanitation Lead

July 2023 – Oct 2024

C40 Cities | Pan-Africa, based in South Africa
Senior Manager: Water Security, Partnership and Implementation, Africa

Jan 2020 – July 2023

WaterAid Southern Africa | South Africa, ESwatini, Zambia, Malawi, Mozambique
WASH Technical Advisor

Jan 2021 – Jun 2022

University of Johannesburg | South Africa
Adjunct Senior Lecturer

Jan 2019 – Dec 2020

Delta Built Environment Consultants | South Africa
Civil Engineer

Jan 2018 – Dec 2018

University of Pretoria: Structural Engineering Consulting Group | South Africa
Civil Engineer

Oct 2016 – Dec 2017

The Design Team Consulting Engineers | Zimbabwe
Civil Engineer

KEY PROJECTS

Resilient Cities Limpopo | 2024 - 2025 | South Africa, Botswana, Mozambique | Donor: USAID | Value: USD 37 million As Deputy Chief of Party (Technical) for the USD 37 million USAID Resilient Cities Limpopo Programme, I provided strategic leadership to improve transboundary water, sanitation, and waste management services across South Africa, Botswana, and Mozambique. I spearheaded city selection, foundational assessments, and programme design to drive private sector investment, policy reform, and municipal capacity building. By coordinating governments, donors, and partners like the World Bank and NEPAD Business Foundation, we advanced climate-resilient service delivery for urban communities in the Limpopo River Basin, fostering regional cooperation and sustainable development.

WASH In Schools Projects | 2020 - 2023 | South Africa | Donor: Kimberly-Clark Corporation | Value: USD 2,4 million As lead engineer and project manager, I led a multidisciplinary team of specialists and coordinating partners. I led the development of technical and financial proposals, securing USD 2 100 000 to expand the project in 2021. My responsibilities included the design and development of systems to supply clean drinking water, construction of inclusive ablution blocks, and hygiene behaviour change campaigns. As of 2024, the programme was successfully implemented in 13 schools providing clean water and safely managed sanitation facilities to over 7 000 students and over 17 000 people in rural communities.

Mopani Mine Development | Zambia | South Africa | Client: Mopani Copper Mines PLC | Value: USD 3 million I was the civil engineer responsible for the master planning on a newly developed section of copper mines. This entailed the design of rail, stormwater management and on-site mine water detention and treatment; as well as structural

design of new housing units complete with on-site sanitation in the mine housing complex. During the construction phase, I was responsible for quality monitoring, project costing and certification of payments to contractors.

Kholwezi Community Healthcare Centre | 2019 | DRC | Client: Kamoto Copper Company | Value: USD 9,3 million

The project involved the detailed design and construction of a new community healthcare centre as part of long-term renewal project in the mining town of Kolwezi, DRC. As the design engineer and team leader, I collaborated with a multidiscipline team of local engineers, led pre-design stakeholder engagement and surveys, and was responsible for overall project and construction management.

Ramaphosa Settlement Pedestrian Bridges | 2019 | South Africa | Client: City of Ekurhuleni | Value: USD 600 000

I was the structural engineer and team leader responsible for the project as well as the coordination of a team of nine technical personnel. The project entailed the emergency design and construction of two pedestrian bridges and paved footpaths in a greenfield area adjacent to an informal settlement. My responsibilities included coordinating pre-design stakeholder engagement and surveys, detailed design for construction, construction supervision, community engagement, project costing and certification of payments to the contractor.

Roads & Urban Water Management | 2019 – 2020 | South Africa | Client: City of Ekurhuleni | Value: USD 2,4 million

This project entailed the design, implementation and construction supervision of various roads and stormwater projects within the City of Ekurhuleni Metropolitan Municipality. My responsibilities included interfacing with interested and affected parties, conducting hydraulic modelling and determining optimal positioning of stormwater systems, as well as the construction supervision of various road upgrades.

Musina-Makhado SEZ | 2018 – ongoing | Client: Limpopo Economic Development Agency | Value: USD 520 million

As part of a multi-firm expert panel, I was a civil engineer responsible for pre-design stakeholder engagement and masterplan development of the proposed special economic zone's water and intermodal transportation infrastructure.

PUBLICATIONS

- Mlilwana T., Kearsley E. 2022. Light-coloured concrete surfacing for urban heat island mitigation in Southern Africa. Journal of the South African Institution of Civil Engineering.
- C40 Cities. 2023. Effective emergency preparedness for flooding and drought: A guide for cities.
- WaterAid. 2021. Strengthening municipal systems for inclusive and sustainable water and sanitation in South Africa.