

CURRICULUM VITAE (CV)

Position Title:	Civil Engineer
Name of Expert:	Diana Wanjiru Kinyua
Country of Citizenship/Residence:	Kenya

Education:	• Master of Science in Water and Sustainable Development, IHE Delft Institute for Water Education, Netherlands, October 2023 – October 2024. Majoring in Water and Sanitary Engineering • BSc (Hons) Civil Engineering, Jomo Kenyatta University of Agriculture and Technology, Kenya, 2016-2022 Other Training: • Sufficient knowledge of operating the following Computer Programs: AutoCAD, Revit, SAP2000, QGIS, EPANET, Water Gems, MS Project and Microsoft Office Suite • Workplace Health and Safety Module and Policy Training, 2023 • Business Management System Essentials - Opportunity and Project Management, 2023 • Project Management – Digital Regenesys (Enrolled /Ongoing)
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Employment record relevant to the assignment:

Period	Employing organization and your title/position. Contact info for references	Country	Summary of activities performed relevant to the Assignment
January 2025 to Date	Employing Organization Samaritan's Purse International Relief Title/Position WASH Engineer Contact info for references Wilberforce Muriuki – Finance Officer WMuriuki@samaritan.org	Kenya	• Provide strategic and technical Leadership • Lead engineering assessments, development of technical concepts. • Oversee construction of infrastructure including WASH facilities. • Ensure compliance with Sphere standards, national guidelines, and best engineering practices. • Monitoring, Reporting, and Accountability.
April 2022 to October 2023	Employing Organization SMEC International Pty Ltd Title/Position Graduate Engineer –Water Infrastructure, East Africa (K) Contact info for references Dan Kimutai - Water Engineer – Water Infrastructure, East Africa (K) Dan.Kimutai@smec.com	Kenya	• Feasibility studies, detailed design, construction supervision of civil/water engineering projects in Kenya and the East African region • Preparation of Expression of interest and Technical Proposals • Contract Administration and Project Management
February 2022 – March 2022	Employing Organization EL ARCA ENGINEERING Title/Position Graduate Intern Contact info for references Eunice Ngahu – Structural Engineer eunicengahu@gmail.com	Kenya	• Designed and detailed concrete columns, beams, floor slab and foundation using Eurocode standards • Prepared engineering drawings using Revit • Visited and inspected structures under construction and issued site construction review and reports • Prepared bill of quantities for the civil work

August 2020 to April 2021	Employing Organization Kikuyu Municipality Title/Position Site Inspector Contact info for references Lilian Wambui-Senior Superintending Engineer County Government of Kiambu, Kenya, liliankinys@gmail.com	Kenya	Supervised construction of Gikambura Road, Kiambu
July 2019 – June 2020	Employing Organization Kenya National Highway Authority Title/Position Student Engineer Contact info for references Vincent Ooko Civil/Structural Engineer Email: vinceokelo@gmail.com	Kenya	Construction of Nairobi Western Bypass, Nairobi

Membership in Professional Associations and Publications:	Graduate Engineer, Engineers Board of Kenya (EBK) - Registration No: B23941			
Language Skills:	English Swahili	Speaking Excellent Excellent	Reading Excellent Excellent	Writing Excellent Excellent

Adequacy for the Assignment:

Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks

Diana's technical expertise encompasses the design, preparation of tender documents, cost estimation, construction supervision, and project management of civil infrastructure projects. She is skilled in hydraulic modelling for drinking water networks, sewer systems, and treatment plants, as well as the design of sanitation facilities. Diana possesses a strong practical knowledge of structural engineering principles for water-retaining structures, pump station structures, and other civil structures.

Name of assignment or project: Adu – Gongoni WASH Project

Year: January 2026 – December 2026

Location: Magarini subcounty, Kenya

Client: Samaritan's Purse International Relief

Main project features: Construction of 20 latrine blocks each with six cubicles in 15 primary schools. Rehabilitated an existing borehole and equipped an existing pipeline with a booster pump. Conducted sanitation and hygiene awareness to 15 primary schools through providing trainings to teachers.

Positions held: WASH Engineer

Activities performed:

- Conducted sanitation need assessment for primary schools in Adu and Gongoni ward and mapped the schools using QGIS.
- Assessed the existing borehole and prepared technical specifications, bill of quantities for borehole rehabilitation and purchase of a booster pump.
- Supervised the borehole rehabilitation works; flushing, test pumping, camera inspection, pump installation and solarization of the water system.
- Prepared the structural design using AutoCAD and bill of quantities for latrines and septic tank to be constructed.
- Supervised latrines and septic tank construction works, including concrete quality control, inspection of reinforcement and formwork, and the construction of various structures.
- Lead timely and quality project reporting, documentation, and knowledge sharing.

Name of assignment or project: Adu WASH Project

Year: January 2025 – December 2025

Location: Magarini subcounty , Kenya

Client: Samaritan's Purse International Relief

Main project features: Construction of 18 latrine blocks each with six cubicles in 15 primary schools. Repaired and installed hand pumps to four shallow wells in the community. Replaced 1km water pipeline of unplasticized polyvinyl chloride (uPVC) pipe with high-density polyethylene (HDPE). Conducted sanitation and hygiene awareness to 15 primary schools through providing trainings to teachers.

Positions held: WASH Engineer

Activities performed:

- Conducted sanitation need assessment for primary schools in Adu ward and mapped the schools using QGIS.
- Prepared the structural design using AutoCAD and bill of quantities for latrines to be constructed.
- Supervised latrine construction works, including concrete quality control, inspection of reinforcement and formwork, and the construction of various structures.
- Lead timely and quality project reporting, documentation, and knowledge sharing.
- Developed technical and financial proposal for the next year phase.

Name of assignment or project: Water Supply and Sanitation Systems in: (A) Namasale and Sanitation Facilities in Koboko (B) Kaliro -Namung'alwe (C) Sanitation Facilities in Rukungiri (Design Review and Construction Supervision), Amolatar District, Kaliro- Iganga District

Year: May 2023 to Date (Ongoing)

Location: Uganda

Client: Ministry of Water and Environment

Main project features: The scope of the assignment is to carry out a design review and to supervise the Contractor during the execution of the following:

Namasale and Sanitation Facilities in Koboko

- An intake at Mbiko Landing Site which will abstract water from Lake Kyoga
- A conventional water treatment plant to meet the ultimate year 2043 demand of 1,204m³/day having the processes of aeration, flocculation, sedimentation and rapid sand filtration;
- Transmission pipeline of OD200 uPVC of total length 2.5km;
- Steel tank of nominal capacity 250m³ elevated on an 18m steel tower;
- Distribution pipe network of HDPE pipes ranging in size from OD50 to OD90 and uPVC pipes ranging in size from OD110 to OD225 of total length 14.7km;
- 338 initial domestic connections and 29 public and institutional connections;
- Water office to be constructed at the Town Council;
- 1No. waterborne public toilet at the market;
- 1No. Lined VIP institutional toilet and 1No. Incinerator at Namasale Primary School;
- Source protection measures which include tree planting and demarcation of Lake buffer zone with concrete pillars;
- Public sanitation works in Koboko Municipality including 1No. Faecal Sludge Treatment Facility and 9No. Public and Institutional toilets.

Kaliro -Namung'alwe

- A new horizontal flow clarifier at Masese Water Treatment Plant in Jinja with capacity of 12,792 m³/d and sludge drying beds with a sludge volume capacity of 51m³;
- A booster pump station at Wairaka with capacity of 336m³/hr and 148m head in 2023; 377m³/hr and 210m head in 2033;

A booster station at the Iganga 900m³ reservoir site with pump capacity of 159.1m³/hr and 120m head and reinforced concrete sump with a capacity of 200m³

- A new transmission main along the Iganga- Kaliro Highway consisting of OD 250 uPVC PN16 – 12.95 km and OD225 uPVC PN20 – 20.47 km;
- A Cold Pressed Steel reservoir of 200 m³ on an 18m elevated steel tower for Kaliro town; Nabitende RGC; Nambale for Nambale and Naibiri RGCs; Nasuti RGC; Namung'alwe RGC; Bukaye for Bukaye and Namunkesu RGCs;
- A new distribution pipe network of total length 89.79 km of HDPE and uPVC pipes ranging in size from OD200 - OD50 mm PN10 for the entire Project area;
- 30 Public stand posts;
- 2,000 consumer connections (Kaliro and the 7 enroute RGCs)
- Water office- 1 No.

- Public Toilets – 2 No.

Rukungiri Municipality

- 8No. Public and Institutional toilets at markets, health centres and Primary Schools;
- 1No. Faecal Sludge Treatment

Plant. **Positions held:** Assistant

Design Engineer

Activities performed:

- Reviewed the existing facilities (Water Supply and Sanitation System)
- Identified and proposed improvement measures including costing to existing water and sewerage facilities
- Prepared the Inception report and Final Detail Design Review reports.

Name of assignment or project: Comparison of Water Supply Options, Preparation of Detailed Designs, Preparation of Tender Documents, Environmental and Social Impact Assessment, Resettlement Action Plan and Construction Supervision for Wajir Long Term Water Supply (Design Review and Construction Supervision)

Year: October 2021 – April 2025

Location: Wajir, Kenya

Client: Northern Water Work Development Agency

Main project features: The works involve carrying out

- Review of existing studies and data, particularly the three recent World Bank-funded studies, namely the Wajir water masterplan and the Merti aquifer groundwater management plan, as well as study reports of Wajir County groundwater assessment
- Conduct hydrogeological studies or carry out a review of the hydrogeological information including the lithology, drillers' logs, and pump tests for the exploratory boreholes at the recommended sites in Arbajahan and Ademasajida.
- Carry out or conduct a technical, social, and economic comparison and analysis of the two options, Arbajahan and Ademasajida. Prepare a Preliminary Design Report and a Detailed Design of all the necessary work for the chosen best option.
- Examine, design, or create a groundwater quantity and quality monitoring program, including a management plan for the Wajir aquifer and the Merti aquifer area of choice.
- Prepare ESIA and RAP reports
- Prepare bid documents
- Assistance with or provision of assistance during the tendering process
- Site supervision of the construction works

Positions held: Assistant Design Engineer

Activities performed:

- Carried out preliminary pipeline route analysis using GIS for the transmission mains so as to find a water supply route that gives the best value for money to the residents of Wajir.

Name of assignment or project: Nyamugasani Water Supply and Sanitation Project (Design Review and Construction Supervision)

Year: December 2019 – May 2025

Location: Kasere Uganda

Client: Ministry of Water and Environment

Main project features: The scope of the assignment is to carry out a design review and to supervise the Contractor during the execution of the following:

- Construction of river intake structure for abstraction of water from the river.
- Construction of a conventional water treatment plant to meet the ultimate year 2045 demand of 5588m³/day
- Laying of Transmission pipeline of DN 50mm-DN 300mm steel pipe of total length 67.16km including 2No: Break pressure tanks
- Construction of 11No: Steel water storage tanks
- Laying of PN 10 Distribution pipeline of OD 110-250mm UPVC pipes of total length 82.7km and HDPE pipes of OD 20-90mm of total length 173km including 25No: Break pressure tanks.
- Connecting 1500No Service connections;
- Construction of 32No. VIP toilets in Schools and 1No. Waterborne toilets at public places, health facilities, and government offices:
- Prepare ESIA and RAP reports
- Prepare bid documents

- Assistance with or provision of assistance during the tendering process
- Site supervision of the construction works

Positions held: Assistant Design Engineer

Activities performed:

- Performed hydraulic design of water supply networks by analyzing demand, optimizing layouts for efficient pressure and flow, and ensuring compliance with regulations and sustainability standards.
- Carried out the hydraulic design and structural design of water treatment work units including the aerators, flocculation tank, sedimentation tank, rapid sand filters and clear water tank.
- Prepared technical specifications, bills of quantities, tender documents and confidential Engineers estimates.

Name of assignment or project: Construction of Gikambura Road

Year: August 2020 - April

2021 Location: Kikuyu,

Kenya **Client:** Kikuyu

Municipality

Main project features: The scope of the assignment was to carry out:

- Construction supervision for upgrading to the bitumen standard of the 1.3 km Road
- Construction supervision of storm water drainage structures including box culverts

Positions held: Site Inspector

Activities performed:

- Monitored the quality and quantity of the work done by the contractor
- Prepared daily report recordings such as weather conditions, nature and location of the work being performed and by whom, any work that might result in a claim for change in the contract sum or contract time.
- Observed testing and inspection done by the contractor as required in the contract documents.
- Photographed work done while paying special attention to the portion of the work that may have been rejected or associated with a claim or delay.

Name of assignment or project: Construction of Nairobi Western Bypass

Year: July 2019 – June 2020

Location: Kenya

Client: Kenya National Highway Authority

Main project features: To redirect traffic away from the city center, there-by decongesting the city and alleviating the perennial traffic jams.

Positions held: Student Engineer

Activities performed:

- Supervised construction works, including concrete quality control, inspection of reinforcement and formwork, and the construction of various structures.
- Oversaw earthworks and conducted material testing in the laboratory, designing bituminous and concrete mixes.

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