DENNIS SINKONDE

MSc (Highway); BEng (Civil); MConEZ; Pr. Eng; FAArb; ACIArb; MEIZ; MSAICE

CIVIL & PAVEMENT ENGINEERING, CONTRACT MANAGEMENT & CONSTRUCTION DISPUTE RESOLUTION

CONTACT DETAILS

Telephone	:	+27 (0)11 907 6700
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EDUCATION BACKGROUND

Sept 2004 – July 2007 :Certificate and Fellowship Chang'An University, China – obtained a Master of Science (MSc) in Highway Engineering.Sept 2003 – July 2004 :Chang'An University, China – obtained a Certificate in Chinese Language.March 1992 – Oct 1996 :University of Zambia, Lusaka – obtained a Bachelor of Engineering in Civil Engineering.	Feb 2009 – Nov 2010 :	Association of Arbitrators (Southern Africa), South Africa – obtained a
Highway Engineering. Sept 2003 – July 2004 : Chang'An University, China – obtained a Certificate in Chinese Language. March 1992 – Oct 1996 : University of Zambia, Lusaka – obtained a Bachelor of Engineering in		Certificate and Fellowship (FAArb) in Law and Practice in Arbitration.
Sept 2003 – July 2004 :Chang'An University, China – obtained a Certificate in Chinese Language.March 1992 – Oct 1996 :University of Zambia, Lusaka – obtained a Bachelor of Engineering in	Sept 2004 – July 2007 :	Chang'An University, China – obtained a Master of Science (MSc) in
Language. March 1992 – Oct 1996 : University of Zambia, Lusaka – obtained a Bachelor of Engineering in		Highway Engineering.
March 1992 – Oct 1996 : University of Zambia, Lusaka – obtained a Bachelor of Engineering in	Sept 2003 – July 2004 :	Chang'An University, China – obtained a Certificate in Chinese
		Language.
Civil Engineering.	March 1992 – Oct 1996 :	University of Zambia, Lusaka – obtained a Bachelor of Engineering in
		Civil Engineering.

MEMBERSHIP IN PROFESSIONAL BODIES

Member (MConEZ)	: Association of Consulting Engineers of Zambia (MACEZ210)				
Professional Engineer (Pr. Eng)	: Engineering Council of South Africa (20090039)				
<u>Fellow</u> (FAArb)	: Association of Arbitrators (Southern Africa) (2027)				
Member (MSAICE)	: South Africa Institution of Civil Engineering (20091321)				
Member (REng)	: Engineering Registration Board (Zambia) (000773)				
Member (MEIZ)	: Engineering Institution of Zambia (002892)				
Listed on SAICE President's List of Adjudicators and Arbitrators					

Member of South Africa Institution of Civil Engineering's ADR Panel

PUBLICATIONS:

- Dennis Sinkonde. Moisture Damage in Hot Mix Asphalt: A Literature Review. The Zimbabwe Journal of Science, Engineering & Technology. ISSN 2306-5893, Vol 1 No. 2; November 2013.
- Dennis Sinkonde, Hao Pei Wen and Xiao Qing Yi. The Use of Inexpensive Equipment in the Evaluation of Aggregate Surface Energy. The Journal of Testing and Evaluation of American Society for Testing and Materials. ISSN 0090-3973, Volume 35 Issue 6 (November 2007)
- Dennis Sinkonde. Developments in the Design of Flexible Pavements. The Zambian Engineer: Journal of the Engineering Institution of Zambia. ISSN 1608-6678, Vol 40 No. 1; April / May 2007.

SEMINARS/WORKSHOPS/SHORT COURSES - CONTRACTS / DISPUTE RESOLUTION

- Admission Course for Amicable Settlement Facilitators, South African Institution of Civil Engineering, 13 October 2021
- Changes to the 2017 FIDIC Suite of Contracts, <u>Association of Arbitrators</u> Mr Kevin Spence, 17 October 2019
- General Conditions of Contract 2015, CPD, March 2016
- Arbitration, Civil Procedure and Award Writing, Association of Arbitrators, March 2015
- Practical Use of the 1999 FIDIC Conditions of Contract; Association of Consulting Engineers of Zambia & FIDIC, 2015
- The Management of Claims and Resolution of Disputes Under FIDIC, 1999 Contracts, Association of Consulting Engineers of Zambia & FIDIC, 2015
- The FIDIC Claims Making, Defending and Resolving Claims Under FIDIC 1999 Contracts, Cornerstone Seminars, 2012

SEMINARS/WORKSHOPS/SHORT COURSES - ENGINEERING

- Economic Evaluation of Investments in Road Infrastructure using HDM-4, TRL, UK- Sep 2021
- The Design and Construction of Concrete Pavements; Stellenbosch University, March 2021
- Launch of Technical Guideline 2- 2020; South African Road Federation, September 2020
- The Design and Construction of Hot Mix Asphalt; Stellenbosch University, Sept 2019

- Use and Application of HDM -4 for Investments in Highways; South African Road Federation, 12th 14th September 2018
- Business Finance for Built-Environment Professionals; SAICE, Nov 2017
- Flexible Pavement Evaluation & Rehabilitation Design; Stellenbosch University, 2015
- Planning and Scheduling with Microsoft Project, SAICE, May 2014
- Flexible Pavement Design & Analysis; Rubicon Solutions (Pty) Ltd, 2014
- NQF 7 Develop & Promote Labour Intensive Construction Strategies (2014)
- Pavement Management Systems; Stellenbosch University, 2014
- Behaviour & Performance of Bitumen Stabilised Materials; Stellenbosch University, 2013

RUBICON TOOLBOX USAGE

Expert proficiency

AWARDS

1995: the University of Zambia Best 4th Year Engineering Student1994: the University of Zambia Best 3rd Year Civil Engineering Student1990: St. Clement's Secondary School Grade 12M Best Academic Student

CAREER HISTORY

Period	Location	Position Held	Description of Duties		
May 2009 – Ongoing	Aphane Consulting (Pty) Ltd	Director (2015 – Ongoing) Senior Engineer (2009 -2015)	Contract Management, Client Liaison, Pavement Management Systems & condition reporting and works prioritisation, Pavement design, Materials testing and Analyses, and quality control of design & construction process, ensuring compliance with the client's Code of Procedure and any other Tasks allocated by the Executive Committee		
Sep 2007 – Apr 2009	ASCH Consulting (Pty) Ltd	Civil Engineer	Assessment of existing pavement structure using non-destructive methods; materials testing and Analyses; detailed design of pavement strengthening options; preparation of specifications and contract document.		
Aug 2003 – Sep 2009	Studying and Researching towards a master's degree (Obtained MSC in Highway Engineering in 2007 in China)				
Feb 1997 – Aug 2003	Kiran & Musonda Associates - Zambia	Projects Engineer	Involved in condition survey of existing roads and preparation of contract documents, bid evaluation, construction supervision, monthly valuations and claims certification, progress reporting, and monitoring, quality control.		

SUMMARY OF EXPERIENCE AND SPECIALISATION

Dennis Sinkonde is a director at Aphane Consulting (Pty) Ltd, a medium-sized civil/structural engineering consulting company headquartered in Johannesburg, South Africa. His practice and expertise comprising pavement engineering investigations, analyses, and designs; pavement management systems; civil engineering contract and project administration; Project Quality Control and assurance; and Construction Alternative Dispute Avoidance and Resolution have been gained over 25 years since he graduated with a Bachelor of Engineering in Civil Engineering from the University of Zambia in 1997. He obtained a master's degree in Highway Engineering in 2007 from Chang'An University, China. He is conversant with FIDIC Conditions of Contract, JBCC Suite of Contracts, and the Suite of General Conditions Contract by the South African Institution of Engineering (SAICE).

His involvement in Arbitration and Adjudication commenced in February 2011 after he was admitted as a <u>Fellow</u> of the <u>Association of Arbitrators</u>. He has since accepted appointments as an Arbitrator, Adjudicator, and Party Representative in commercial arbitrations and adjudications, principally arising from construction-related disputes.

Dennis Sinkonde is a <u>Fellow</u> of the <u>Association of Arbitrators (Southern Africa) NPC</u>, a member of the Association of Consulting Engineers of Zambia, a Professional Engineer with the Engineering Council of South Africa, a Member of SAICE, is Listed on the SAICE President's List of Adjudicators and Arbitrators, serves as a member of SAICE Alternative Dispute Resolution (ADR) Panel, a Registered Engineer with the Engineers Registration Board of Zambia, a member of the Engineering Institution of Zambia and an Associate of the Chartered Institute of Arbitrators (UK).

SPECIFIC EXPERIENCE – CONSTRUCTION DISPUTE BOARDS

- one member Adjudication board on a dispute between a Contractor and a municipality in Western Cape under GCC 2015. The award made in 2021
- one member Adjudication board on a dispute between a Contractor and a Developer under FIDIC Red Book 1999 Edition. The award made in 2021
- Party Representative (Employer) for several disputes under FIDIC Conditions of Contract (Red Book -1999)
- Sole Arbitrator on a dispute between the Main Contractor and the Subcontractor under a Subcontractor agreement. Award made in 2019
- Sole Arbitrator on a dispute between the Subcontractor and the Main Contractor under a Subcontractor agreement. The award was made in May 2019
- Member of a 3-member Adjudication board on six disputes between a Contractor and a Provincial Road's Department under General Conditions of Contract 2010. Determinations made in July 2017
- Sole Arbitrator on a dispute between a Developer and the Contractor under the JBCC Agreement. The award was made in February 2016
- Sole Adjudicator between Contractor and a Metropolitan Municipality under the JBCC Agreement. The determination made in 2015
- Claimant's Representative for an Arbitration dispute between a Contractor and the Road Authorities in Zambia under FIDIC Conditions of Contract (Red Book)
- Several determinations as Engineer using General Conditions of Contract editions 2004, 2010, and 2015, FIDIC RED Books.

SELECTED SPECIFIC EXPERIENCE - ENGINEERING

May 2024 – Ongoing

Pavement Engineer - Upgrading of 49km of Roads D332, D506, Z539 and Z559 from Dwarseberg to Pachsdraai, Northwest Province. The firm's scope includes the design of the upgrade from Gravel to Surfaced standard, economic assessments and selection of the most viable options, and supervision of the construction of a total of approximately 49km stretch of the road. **[Estimated Cost = R530 million]**

June 2023 – January 2024

Pavement Engineer - Rehabilitation of 12km of Township Roads in Emfuleni Local Municipality, Gauteng Province. The firm's scope includes condition assessments, material testing, and rehabilitation design; economic assessments and selection of most viable rehabilitation options; and supervision of the construction of a total of approximately 12km stretch of the road involving various treatments, which include Insitu recycling of the existing base, additional layer works and double seal surfacing, design reports and supervision. **[Construction Cost = R151 million]**

March 2023 – Ongoing (GCC 2015)

Pavement/Contract Engineer – Maintenance and Rehabilitation of approximately 19km of Road D1675 in Lephalale, Limpopo Province. The firm's scope includes maintenance and rehabilitation design of the roads, economic assessments and selection of most viable maintenance options, and supervision of the works involving various treatments. **[Construction Cost = R55 million]**

May 2021 – Ongoing (GCC 2015)

Pavement/Contract Engineer - Rehabilitation of 28km of Road P152/1 from Madibogo to Delareyville, Northwest Province. The firm's scope includes upgrading and rehabilitation design; economic assessments and selection of most viable rehabilitation options; and supervision of the construction of a total of approximately 28km stretch of the road involving various treatments, which include Insitu recycling of the existing base, additional layer works and double seal surfacing, design reports and supervision. [Construction Cost = R151 million]

February 2021 – September 2023 (GCC 2015)

Pavement/Contract Engineer – Maintenance and Rehabilitation of approximately 24km of 3 Roads in Tzaneen, Limpopo Province. The firm's scope includes maintenance and rehabilitation design of the roads and flood-damaged embankments; economic assessments and selection of most viable maintenance

options; and work supervision involving various treatments. [Construction Cost = R35 million]

February 2021 – Ongoing

Quality Assurance Engineer – Consulting Engineering Services for 3 Years for the Road Asset Management System of the Road Agency Limpopo (**12600Lane.km of paved and 40200Lane.km** of unpaved network and **1200** bridges & and major culverts). The firm's responsibilities include road measurements by Machines and Visual Condition Assessments, analysis of data collected, and estimating budgets required to rehabilitate and maintain the road assets. Assist in preparing strategic reports and compilation of the most viable work packages based on the available budget (Constrained budgets). **[Fee = R130 million]**

September 2019 – February 2021 (GCC 2015)

Pavement/Contract Engineer - Rehabilitation of 25km of Road P152/1 from Setlagole to Madibogo, Northwest Province. The firm's scope includes upgrading and rehabilitation design; economic assessments and selection of most viable rehabilitation options; and supervision of the construction of a total of approximately 25km stretch of the road involving various treatments, which include Insitu recycling of the existing base, additional layer works and double seal surfacing, design reports and supervision. [Construction Cost = R115 million]

February 2017 – August 2021 (FIDIC 1999)

Contract Engineer – Consulting Engineering Services for 4 Years for the Management and Execution of Routine Road Maintenance Contracts on Selected RISFSA Classes 1 & and two roads in the Vereeniging Region of Gauteng Province, Gauteng Department of Roads and Transport. The firm's scope includes Contract Supervision, Visual Assessments and Condition Monitoring, Reporting, and Prioritization of Maintenance and rehabilitation Works on selected Class 1 & and 2 roads totalling 245km. [Fee = R20 million]

August 2016 - July 2018 (GCC 2015)

Pavement Engineer – Consulting Engineering Services for the Detail Design K105 Dual Carriageway from Kempton Park to Road K60, Gauteng Department of Roads and Transport. The firm's scope includes detailed design, economic assessments, selection of the most viable options, and an environmental impact assessment of a new dual carriageway road approximately 9km. [Fee = R8 Million]

JUNE 2014 – MARCH 2016 (GCC 2010)

Project Engineer – Construction of Road K109 from Dale Road to Road K27 (R562), Gauteng Department of Roads and Transport. The firm's scope includes a detailed design of a new dual carriageway road, economic assessments and selection of the most viable options, and supervision of the construction of approximately 5km of the road. **[Fee = R10.5 million]**

JANUARY 2015 - APRIL 2016

Project Engineer - Rehabilitation of Road K111 from Modderfontein Road to K27 (R562), Gauteng Province. The firm's scope includes upgrading and rehabilitation design, economic assessments, selection of most viable options, and supervision of the construction of a total of approximately 8km stretch of the road involving various treatments, which include Insitu recycling of the existing base, additional layerworks and double seal surfacing, design reports and supervision. **Estimated Fee = R15.5 million**]

Pavement / Materials Engineer (Independent Consultant to Tank Project Solutions) for the Techno-Economic Study, Detailed Engineering Design, and Tender document preparation for the upgrading to the bituminous standard of 185 km Katete-U23/D598 Junction and Mtetezi – Msoro (U23, D598) (Lot 1) and Msoro-Chipata (D123) (Lot 2) roads in Eastern Province, Zambia.

JANUARY 2013 - SEPTEMBER 2013 (FIDIC)

Contract & Project Engineer - Rehabilitation of Roads D114 and D894 in Rustenburg and Sannieshof, respectively, Northwest Province. The firm's scope includes reseal and rehabilitation design, economic assessments and selection of most viable rehabilitation options, and supervision of the construction of a total of approximately 100km stretch of the road involving Insitu recycling of the existing base and double seal surfacing, design reports, and supervision. **[Construction Cost = R56 Million]**

SEPTEMBER 2013 – DEC 2014 (Design completed, awaiting the appointment of contractor) (GCC 2010) **Pavement Engineer –** Construction of Road D1243 from Gravel to bituminous Standards, Gauteng Department of Roads and Transport. The firm's scope includes a detailed design of a new singlecarriageway road, economic assessments and selection of the most viable options, and supervision of the construction of approximately 15km of the road. **[Estimated Construction Cost = R90 Million]** SEPTEMBER 2013 – FEBRUARY 2014 (Design completed, awaiting the appointment of contractor) (GCC 2010)

Project Engineer—Rehabilitation of 85km of Road P152/1 from Delareyville to Setlagole, Northwest Province. The firm's scope includes upgrading and rehabilitation design and supervision of the construction of an approximately 85km stretch of the road involving various treatments, including in-situ recycling of the existing base, additional layer works, double seal surfacing, design reports, and supervision.

JANUARY 2013 - SEPTEMBER 2013 (FIDIC)

Project Engineer—Rehabilitation of Roads D114 and D894 in Rustenburg and Sannieshof, respectively, Northwest Province. The firm's scope includes reseal and rehabilitation design and supervision of the construction of an approximately 100km stretch of the road involving in-situ recycling of the existing base and double-seal surfacing, design reports, and supervision.

SEPTEMBER 2013 – Ongoing (Design completed, awaiting the appointment of contractor) (GCC 2010) Pavement Engineer – Construction of Road D1243 from Gravel to bituminous Standards, Gauteng Department of Roads and Transport. The firm's scope includes the detailed design of a new single-carriageway road and supervision of the construction of approximately 15km of the road.

MAY 2011 – FEB. 2013 SUB-CONSULTANT TO KIRAN AND MUSONDA ASSOCIATES (ZAMBIA) (FIDIC) Pavement / Materials Engineer for Design and Supervision of the Upgrading and Rehabilitation of Approximately 14.6km of the Indeni to T003 road via Fatima Girls Secondary School Road in Copperbelt Province of Zambia. Responsible for pavement materials investigations, sourcing, field & laboratory material testing, analysing test data, carrying out pavement designs for roads, calculating quantities, preparing work schedules, and assisting with design reports.

Pavement / Materials Engineer for Design, Supervision, and Construction for Rehabilitation / Upgrading of 30.71km of Urban Roads in Luanshya Town responsible for pavement materials investigations, sourcing, field & laboratory material testing, analysing test data, carrying out pavement designs for roads, calculating quantities, prepare work schedules and assist in with design report. [Estimated Construction Cost = US\$ 15 Million]

MAY 2009 – SEPTEMBER 2011 (NEC)

Resident Engineer, Gauteng Department of Public Transport, Road and Works - Construction of Approximately 5.7km Of Dual Carriageway Between Provincial Road P158-2 (N14) and Road K31 (Lanseria Airport).

The firm's scope includes upgrading and rehabilitation design and supervision of the construction of an additional Bridge over the N14 and related access ramps between N14 and K29; the construction of five intersections for access roads along K29, which include two surfaced access roads and nine gravel access roads; the construction of 8 taxi lay-byes; the construction of a 5Km long of Concrete Pavement using Mesh—Ref. 193 and 25MPa concrete for pedestrian/cyclist walkway along K29; provision of underground stormwater. The design includes rehabilitation of existing pavement, widening of the carriageway, and provision of underground drainage.

NOVEMBER 2009 - OCTOBER 2010 (GCC 2004)

Project Engineer – Polokwane City - Rehabilitation and Upgrading of City Roads in Polokwane. The firm's scope includes upgrading and rehabilitation design, supervising the construction of various roads in the city centre, and making recommendations on the scope of the pavement management systems to be adopted by selected municipalities in Limpopo.

SEPTEMBER 2007 – APRIL 2009 ASCH CONSULTING ENGINEERS

JANUARY 2009 – APRIL 2009 (GCC 2004)

Pavement Engineer - Upgrading and Rehabilitation of 4km Bolani Street in Soweto, Gauteng Department of Public Transport, Road and Works. The firm's scope included upgrading and rehabilitation of the design of the existing double-lane road into a 4-lane highway with the provision of underground stormwater. The road is a busy bus route. The design includes rehabilitation of existing pavement, widening of the carriageway, and provision of underground drainage.

OCTOBER 2007 - JANUARY 2009 (GCC 2004)

Resident Engineer - 20 Townships Road Improvement for Johannesburg Region (Soweto). The firm's scope includes topographical and geotechnical investigations, pavement, alignment, subsurface drainage system design, documentation, and construction supervision. [Construction Cost = R70 Million]

FEBRUARY 1997 – AUGUST 2003

KIRAN & MUSONDA ASSOCIATES

AUGUST 2002 - AUGUST 2003

Project Engineer - Maintenance of Urban (46km) and feeder Roads (1300km) in Luapula and Western Provinces The firm's scope of services included investigating existing roads, recommending spot /section improvements for the selected roads, quantities, and cost estimates, preparing contract documents, bid evaluation, and

supervision. [Estimated Fee = US\$1 Million]

AUGUST 2001 – FEBRUARY 2002

Design Engineer - Rehabilitation of 25km of Urban Roads in Luanshya & Mufulira Districts. The scope of the Firm's services included estimation of existing pavements' residue life, rehabilitation design, cost estimation, supervision, and related project management activities. The work included Shoulder repairs, pothole patching, drainage cleaning & improvement, section reconstruction, levelling course, asphalt overlaying, single seal chip & spray slurry seal. [Estimated Fee = US\$0.9 Million]

OCTOBER 2002 - APRIL 2003

Project Engineer on Feeder & Urban Roads Maintenance Program in Western & Luapula Province. Services included approx. 350km of feeder roads, 20km of urban roads in Western Province & 550km of feeder roads, 15km in Luapula Province. [Estimated Fee = US\$0.75 Million]

AUGUST 1998 - OCTOBER 2000

Project Engineer for Accessibility Improvement of Selected Feeder Roads in Western Province (IDA funded) of approximately 2400km of road spot improvement. Approximately 785 km length selected feeder roads major rehabilitation and construction of 30No. x 2.0m diameter Armco pipe culverts and associated works viz headwalls, wing walls, embankments, stone pitching, stone masonry, etc. [Estimated Fee = US\$1.2 Million

MAY 1999 – OCTOBER 1999

Project Engineer for Strengthening of Proposed Access Road for Chambeshi Metal Plc, Chambeshi, responsible for surveys, soil testing, designs, drawings, drainage, setting out checks, and site supervision. Services included Field surveys of traffic, pavement condition & materials topographic, riding quality and materials sourcing, sampling and testing, investigation, data analysis, evaluation, and rehabilitation designs, a programme of drawings, sketches, schedules, and construction supervision of quality control, setting out checking, testing, measurements, levelling, and workmanship. [Estimated Fee = US\$0.25 Million]

FEBRUARY 1997 - JULY 1998

Civil Engineer backstopping for Technical Expertise for EEOA in Eastern Province responsible for assisting with design, documents, claim, supervision & reports. Works involving appraisal, feasibility & technical studies, costbenefit analysis, field surveys, design, drawings, measurements, preparation of sketches, and assisting in the preparation of tender documents, control and monitoring progress, contract adjudication, cost estimates, and supervision of construction works.

REFEREES

 Mr Henry Musonda Chief Executive Officer Kiran and Musonda Associates 3rd Floor Mpelembe House, Broadway P.O Box 70944, Ndola – Zambia Email: <u>musondahenry2008@yahoo.com</u> Phone: +260 977 316461

2. Mr Victor Phala

Chief Director: Maintenance Gauteng Department of Roads and Transport Private Bag X83, Marshalltown, 2107 Johannesburg – South Africa **Email:** <u>Victor.Phala@gauteng.gov.za</u> **Phone:** +27 (0) 8367 92673

3. **Dr Michael Pavlakis** Managing Member

Michael Pavlakis & Associates 257 Barry Hertzog Avenue, Emmarentia 2195 Johannesburg – South Africa Email: <u>mpavlaki@iafrica.com</u> Phone: +27 (011) 888 7428