

NAME	Alan William ROBINSON
MARITAL STATUS	Married
CITIZENSHIP	South African
QUALIFICATIONS	BSc (Civil) Eng, University of Witwatersrand (1971) GDE (Wits) Geotechnics and Hydraulics (1988)
ACADEMIC QUALIFICATIONS	Bsc (Civil) Eng Wits (1971) GDE (Wits) Materials, Geotechnics & Hydraulics (1988)
PROFESSIONAL INSTITUTIONS	South African Council for Professional Engineers (1975) South African Institution of Civil Engineers (1977) Past Member of CESA (1993 - 2014)
SPECIALISATION	Geotechnical Engineering Design & Construction of earth Dams and canals Mine Waste Rehabilitation and Design Municipal Engineering – and Services Flood line determination Bulk water supply Design roads,,stormwater, sewer and water reticulation Roads and Earthworks Foundation Design and drainage design Road materials, pavement design and rehabilitation Mechanistic pavement evaluation and design Documentation and Contract Administration
OTHER ACTIVITIES	Past Secretary of the Northcliff High Governing Body and representative on TEMPA. Past Committee member Ward I Rate Payers Association. Part time Lecturer on SANSSA training courses. Member UCT Graduate School of Business (PDP 1990). Past Committee member BMW Club of S.A. Past Sunday School Superintendent & Teacher Hobbies include Motor racing, classic cars and cycling. Expert Witness on various Geotechnical issues

RESUME OF EXPERIENCE

After graduating from Witwatersrand University Alan joined the Design Branch of the City Engineers Department with whom he was a Bursar. While at the City Engineers Department he was involved in the design of minor structures in concrete and steel. His interest in geotechnical engineering together with the hydraulic and hydrological aspects of earth dam design in dolomitic areas originated from here.

From the Design Branch he was transferred to Roads and Works Branch where he became involved in the contract administration related to the resurfacing and maintenance programmes on minor roads and freeway contracts.

His interest in Dams and dam construction, started when he was involved on the proposed dam and the Klip River, and various other small "Farm" dams for Parks and Recreation Department.

In 1977 Alan acted as Resident Engineer on a number of major urban arterial which formed part of the upgrading programme for the City's transportation routes.

In 1979 he joined the consulting practice of **Steffen Robertson and Kirsten** where he was specifically involved in computer applications to geotechnical problems. This work involved Tailings Dam design, slope stability analysis and hydrological optimisation for various mining companies.

In 1980 he relocated to Durban after accepting a position as a geotechnical engineer with the firm **Webb and Partners**. While here he was involved in comprehensive geotechnical assessment for various large and small structures, road embankments and water extraction facilities.

In 1982 he was appointed Resident Engineer (Earthworks) on the Phase III expansion of the Coal Terminal in Richards Bay. It was while on this project that he developed considerable expertise in instrumentation and construction of large embankments on soft clays, sheet piling and drilling programmes for bridges, surge bins and underground tippler structures.

He moved to the Civil Division of Webb and Partners in their Johannesburg office and was involved in the design of Tailings Dams and Township Roads services.

In 1984 Alan joined **Ninham Shand Inc.** in Johannesburg and was involved in a number of projects from the geotechnical and civil engineering point of view. He carried out extensive work on road design within developing areas and the development of infrastructure on poor soils, including dolomite and collapsing sand.

In 1988 he was promoted to the position of Associate within Ninham Shand and continued his work in the geotechnical, civil engineering and contract fields. He specialised in Project management, Geotechnics and Hydraulics, and in 1988 obtained a Graduate Diploma in Engineering at Wits. He co-authored a paper to the 1989 A.T.C. Conference in the field of low cost road construction.

- * Township investigations:-Protea South, Khatlehong, Thembisa, Thokosa, Mamelodi, Kokstad, Kyalami Park, Kyalami Estates, Dowerglen Ext 4 and 5, Sundowner, Newclare, Wilro Park, Riverbend, Maroeladal, Tunney Ext 9, Dainfern & extensions, Northriding Ext 22, Lonehill Ext 12, Modderhill

1.2 CONTRACT MANAGEMENT AND INFRASTRUCTURE DESIGN

- * Mechanistic pavement evaluation and design
- * Roads and Earthworks Documentation and Contract Administration
- * Road construction materials
- * Adjudication of tender documents & award of contracts
- * Preparation of drawings and contract documentation
- * Contract administration involving preparation of Payment Certificates issuing of site instructions and ensuring compliance with the specifications
- * Liaison with Local and Provincial Authorities to ensure relocation of services where necessary, to accommodate new construction work
- * Design, construction and supervision of roads, dams, culverts and pipelines
- * Relocation of various critical services including oil pipe lines, gas mains and telecommunication cables.

Significant projects

- * SANDTON TOWN COUNCIL and COROBRIK - Roads, stormwater and sewer
- * RANDBURG TOWN COUNCIL - Roads, stormwater and sewer
- * AECI - The Woodlands Office Park - infrastructure contract
- * AMPROS - Township Roads and services for Kyalami Estates, Fourways Ext 15
- * RBCT - Richards Bay Coal terminal - Civil Contract Management (Phase III)
- * NBS - DEVCON - Township Roads and services - Dowerglen, Marais Steyn Park
- * SAB - Roads and Stormwater - Alrode Brewery
- * 5th AVENUE PROPERTIES - Roads, water, stormwater and sewer - Rivonia Ext 21
- * SAB and SONDELA BREWERY - Factory and warehouse floors and roads
- * PERMPROP - Roads, sewer, water and stormwater - Bedfordview, Strathaven
- * CONCOR - Roads, sewer, water and stormwater - Sundowner
- * MIDRAND M.S.S. - Blue Hills - Roads stormwater and services infrastructure
- * TITAN CONSTRUCTION - Services and infrastructure to Meadowdale, Motown - Edenvale
- * RMS SYFRETS - Roads and services - Woodmead office park
- * CONDEV - Roads and services - Summer Place, Barcelona, Pelican Place
- * SOUTH AFRICAN BREWERIES - Roads and services - Alrode and Wadeville Depot
- * WILSON BAYLY HOLMES - OVCON - Roads and services - Woodmead Estate
- * SOUTHERN METROPOLITAN SUBSTRUCTURE - Liaison on taxi/bus facilities
- * SMLC - Bulk Water Supply and Sewer outfall links for Weiler's Farm
- * SMLC - Bulk Water Supply and Sewer outfall links for Sweetwaters & Thulamtwana
- * JCI - Infrastructure to Dainfern and extensions.
- * J.F.S. - Infrastructure to various Cluster Developments in Robindale & Bordeaux
- * URBAN FOUNDATION/NEWCO - Protea North, Dobsonville, Daveyton & Khatlehong.
- * AQUACHLOR – Roads and Stormwater

- * TOTAL SA – 18km Bulk water supply pipeline (Forzando Mine)

1.3 DAMS & CANALS

- * Foundation design for structures and earth dams
- * Slope stability and subsurface drainage, for earth and tailings dams
- * Geotechnical investigations for new and existing dams within and outside South Africa
- * Dam and Spillway Safety Inspections
- * Determination of flood lines, with design and construction of river diversions
- * Design of return water Dams and canals on various coal, gold, platinum and asbestos mines
- * Preparation of drawings with contract documentation and supervision
- * Design of earth embankment dams, spillways and canal linings
- * Approved Pr Eng with Dam Safety Office (Tavistock Colliery)

Significant projects

- * Dam Safety Inspection - Marais Steyn Park - EDENVALE
- * Sea wall protection at ORANGEMUND
- * Dam for farmers co-operative in ELLISRAS using Hyson Cells
- * Sizing of canals and attenuation dams - NEWCASTLE and BARBERTON
- * Earth dam on the Klip River underlain by Dolomite - Johannesburg Parks Department
- * Design small dam - CLARENS and BEIRA using Hyson Cells
- * 30m high platinum tailings dam Rustenburg - IMPALA PLATINUM
- * Various return water dams for coal mines in WITBANK, UTRECHT and VRYHEID
- * Water and effluent control at NCP CHLOORKOP
- * Runoff and separation of stormwater at ZINCOR - Springs.
- * Dam and Canal Safety Inspection - TAVISTOCK.
- * River diversion - MSAULI.
- * Dam rehabilitation - NCP, THABAZIMBI.

1.4 MINING & REHABILITATION

- * Mine Waste Disposal design, Rehabilitation and closure
- * Bulk water pipelines
- * Roads and Earthworks
- * Contract Supervision
- * Foundation design for structures and earth dams
- * Slope stability and subsurface drainage, for earth and tailings dams
- * Geotechnical investigations for new and existing dams within and outside South Africa
- * Tailings dam design with hydrological optimisation and water balance studies
- * Rehabilitation of disturbed areas
- * Conceptual and detailed design of new tailings disposal facilities, including penstock sizing
- * Dam and Spillway Safety Inspections
- * Rehabilitation and environmental improvement of Coal, Asbestos and Gold Mines
- * Determination of flood lines and design and construction of river diversions
- * Design of stormwater management of clean and dirty water systems, including retention and evaporation ponds
- * Design of return water Dams and canals on various coal, gold, platinum and asbestos mines
- * Adjudication of tender documents and award of contracts
- * Preparation of drawings with contract documentation and supervision
- * Design of earth embankment dams, spillways and canal linings
- * Slope stability analysis of Mine Tailings dams and monitoring of seepage
- * COP preparation for Mine Residue Deposits

1.5 COURSES & SEMINARS ATTENDED

- * 1973 SAICE University of Witwatersrand - Lecture Course Geotechnical Division
- * 1975 NITRR CSIR - Material and Design Course
- * 1975 Durban - The 6th Regional Conference for Soil Mechanics and Foundation Engineering
- * 1977 SAICE Durban - Geotechnical Processes Course
- * 1978 SAICE - Continuing Education Lecture Course
- * 1980 Graduate School of Business Cape Town - Property Development Programme
- * 1982 University of Witwatersrand - Lecture Course on Geotechnics in South Africa
- * 1983 Midrand - Geogrid Seminar
- * 1983 University of Stellenbosch Seminar on Application of Probability and Statistics in Geotechnics
- * 1984 SARF - Foundations for Structures
- * 1986 University of Witwatersrand - Fabric Reinforced Walls
- * 1986 University of Witwatersrand - Roads Stabilisation using bitumin, tar and emulsion
- * 1987 CSIR - Pavement Maintenance and Rehabilitation
- * 1987 SAICE Johannesburg - Mining and Industrial Waste Management International Conference
- * 1988 CSIR - Design of Stiffened Raft Foundations
- * 1988 University of Witwatersrand - Lecture Course Geotechnical Division
- * 1988 CSIR Pavement Behaviour - Road Infrastructure Course
- * 1990 CSIR Pretoria - ATC Convention
- * 1990 CSIR - Symposium on Dam Safety
- * 1990 Johannesburg - Reinforced Earth Seminar
- * 1991 Lesotho - Geotechnics in the African Environment
- * 1991 University of Pretoria - Dams for Rural Water Supply
- * 1991 SAICE Johannesburg - Lecture Course on Foundation Design
- * 1992 ATC University of Pretoria - 10th Regional Conference for Africa on Soil Mechanic and Foundation Engineering
- * 1993 PCI - Concrete Industrial Floors Design
- * 1993 SAICE - Pump Station Design Course
- * 1994 Pilansburg Nature Reserve - Seminar on Sustainable Land Use
- * 1994 Midrand - African Gabions
- * 1994 CSIR - Road Rehabilitation Course
- * 1995 Johannesburg - Kaytech Seminar on Geotextiles
- * 1996 - Aquatan Lining Systems
- * 1997 Johannesburg - Geomembrane Liners Lecture Course Geotechnical Division
- * 1997 Johannesburg - Designing with Geotextiles Geotechnical Division Seminar
- * 1997 Johannesburg - 2nd International Conference on Mining and Industrial Waste Management
- * 1988 D.O.T - Rehabilitation Design of Flexible Pavements
- * 1998 D.O.T - Draft TRH12 and TRH14 Workshop