

CURRICULUM VITAE

ANDREW BULMAN



POSITION : Director
NAME OF FIRM : UrbanEQ Consulting Engineers (Pty) Ltd
SPECIALISATION : Transportation Engineer
DATE OF BIRTH : 23 October 1971
NATIONALITY : South African
YEARS EXPERIENCE : 24

SUMMARY:

Andrew Bulman is a professionally registered transportation engineer with a master's degree in transportation planning and 24 years of experience in the fields of traffic and transportation engineering and planning. This includes more than 13 years' experience in the planning, implementation, financing, and operational management of public transport systems, including BRT.

Andrew's key experience includes: Traffic engineering, transportation planning and feasibility studies, public transport system analysis and design, public transport operations, public transport financial and efficiency analysis, public transport facilities design, planning and operation of event transport systems.

More recently, Andrew has been a key team member responsible for the operational implementation of both the City of Cape Town and the City of Durban's BRT systems, including providing ongoing system planning, business viability assessment and operational management inputs to improve these systems.

Andrew has also been involved in operational and financial reviews of the City of Johannesburg, Tshwane, Port Elizabeth and George's BRT systems in order to improve the operational performance of these systems. In addition, he was the national team-leader responsible for the review of grant applications for BRT systems made by 13 cities across South Africa.

EDUCATION:

Qualification:	Institution:	Year Obtained:
MEng (Transportation)	University of Stellenbosch	2001
BSc (Eng) Civil	University of Cape Town	1994

MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS:

- Registration as a Professional Engineer: Engineering Council of South Africa, 1999
PrEng Registration No: 990261
- Member of the South African Institute of Civil Engineering
Membership No: 091428

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EMPLOYMENT RECORD:

From:	2016 to date
Employer:	UrbanEQ Consulting Engineers (Pty) Ltd
Position held:	Director
From:	2002 to 2016 (including one-year working for FIFA on the 2010 World Cup)
Employer:	GIBB (Pty) Ltd
Position held:	Technical Executive and Sector Unit Manager Traffic and Transportation
From:	2000 to 2001
Employer:	City of Cape Town
Position held:	Transportation Planning Professional
From:	1995 to 1999
Employer:	GIBB (Pty) Ltd
Position held:	Project Engineer, Traffic and Transportation

PROJECT HISTORY (Public Transport and BRT Projects):

PROJECT NAME:	PROVISION OF PROFESSIONAL SERVICES: BUSINESS DEVELOPMENT
PERIOD:	From: Sep 2015 to Aug 2019
CLIENT:	Transport for Cape Town, City of Cape Town (sub-con to Pegasys & GIBB)
SUMMARY:	Assistance to Transport for Cape Town: Business Planning to develop business plans and undertake system analysis, cost modelling, business case investigations, vehicle fleet specification reviews, design business parameters to inform BRT contracts, develop business strategies and other ad-hoc support. Includes review of network plans and service design, and development of specifications to inform system design and technical and business elements of contracts with BRT operators, specifically for the Phase 2A and N2 Express contracts for the Cape Town network. Specific investigations undertaken include best practice bus depot design review, double decker bus vs articulated bus feasibility analysis, electric bus feasibility analysis, station and stop operational analysis and passenger fare usage analysis etc. In addition, the preparation of annual grant applications to National Government were undertaken.

PROJECT NAME:	BUSINESS PLAN FOR THE CAPE WINELANDS DIAL-A-RIDE SERVICE
PERIOD:	From: Feb 2019 to July 2019
CLIENT:	Cape Winelands Municipality (sub-con to GIBB)
SUMMARY:	Assistance with the development of an operational and business plan for the introduction of a new Dial-a-Ride public transport service for people with disabilities.

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PROJECT NAME: **OPERATIONS AND BUSINESS PLANS FOR THE GO!DURBAN BRT SYSTEM**
PERIOD: From: Feb 2019 to June 2019
CLIENT: eThekweni Transport Authority (ETA) (sub-con to HATCH)
SUMMARY: Assistance with the development of the operations and business plans for the roll-out of the C3 corridor on the GO!Durban BRT system. This included preparing the detailed passenger timetable and bus operations schedule, and the financial plan. General assistance to the ETA for operational roll-out readiness of the service.

PROJECT NAME: **PROVISION OF PROFESSIONAL SERVICES: CONTRACT MANAGEMENT**
PERIOD: From: Jan 2017 to Jan 2020
CLIENT: Transport for Cape Town, City of Cape Town (sub-con to VZA)
SUMMARY: Assistance to Transport for Cape Town: Contract Management to provide general transportation engineering, contractual and operational technical support in the development of public transport contracts. Includes input to contracts for the Cape Town BRT system, as well as support to analysis of data to assist in performance monitoring of BRT operations.

PROJECT NAME: **OPERATIONAL REVIEW OF THE NELSON MANDELA BAY BRT SYSTEM**
PERIOD: From: June 2018 to June 2019
CLIENT: Nelson Mandela Bay Municipality (sub-con to GIBB)
SUMMARY: Operational and financial review of the performance of the pilot BRT service in Port Elizabeth with recommendations of operational changes and budget updates required to improve the operation and financial feasibility of the service.

PROJECT NAME: **NATIONAL TREASURY CITY SUPPORT PROGRAMME: PTNG GRANTS**
PERIOD: From: Aug 2017 to Dec 2018
CLIENT: World Bank and National Treasury (sub-con to GIBB)
SUMMARY: Assistance to the Department of Transport (DoT) in South Africa and World Bank for the development of a new Public Transport Network Grant application template, including advice on how to monitor implementation progress and operational performance of BRT and bus operations. Analysis and review of the grant submissions from 13 cities for funding of planning, implementation and operation of bus systems, and advice to the DoT on grant allocations. Includes review and high-level assessment of network plans and service designs for BRT systems and assessment of performance indicators for operational systems.

PROJECT NAME: **eTHEKWINI COMPREHENSIVE INTEGRATED TRANSPORT PLAN**
PERIOD: From: Oct 2016 to Oct 2018
CLIENT: eThekweni Transport Authority (sub-con to RHDHV)
SUMMARY: Preparation of the Contracted Public Transport Services component of the Public Transport Plan. This included an operational and financial assessment of the current contracted bus services in the City and a description of how these will be

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transformed into a new Integrated Public Transport System with BRT operating as the primary network system.

PROJECT NAME: NATIONAL TREASURY CITY SUPPORT PROGRAMME: BUS RAPID TRANSIT
PERIOD: From: Oct 2015 to Dec 2016
CLIENT: National Treasury
SUMMARY: Assistance to the Cities of Johannesburg and Tshwane to analyse and improve the operational efficiencies of their Bus Rapid Transit systems.

PROJECT NAME: TECHNICAL SUPPORT TO THE CITY OF CAPE TOWN'S MYCITI BUSINESS DEVELOPMENT DEPARTMENT
PERIOD: From: Sep 2013 to Sep 2015
CLIENT: Transport for Cape Town, City of Cape Town
SUMMARY: Detailed analysis of the MyCiTi operations in order to maximise efficiencies and reduce expenditure. This included an assessment of profitability for each route based on patronage, revenue and operating costs for peak and off-peak periods, followed by recommended moderation interventions accompanied by quantified potential cost savings for each intervention and an assessment of feasibility.

PROJECT NAME: TECHNICAL SUPPORT TO THE CITY OF CAPE TOWN'S MYCITI OPERATIONS DEPARTMENT
PERIOD: From: Oct 2010 to September 2019
CLIENT: Transport for Cape Town, City of Cape Town
SUMMARY: Core team engineer in bringing Phase 1 of Cape Town's MyCiTi (BRT) system into operation, done in the context of integrating existing public transport operators (including informal operators) into the new system. Provision of operational support to City of Cape Town officials managing the BRT system including vehicle fleet procurement, development of operational KPIs, bus timetable development, invoice verification, contractual advice and system analysis. Following operationalisation of the services, provided ongoing support to performance management, operations management and improvement of bus services to improve efficiency of operations, including revision of timetables and routes. Specific tasks undertaken include fuel consumption analysis, bus passenger utilisation analysis, operational budget preparation and vehicle kilometre projections.

PROJECT NAME: 2010 FIFA WORLD CUP
PERIOD: From: 2009 to 2010
CLIENT: FIFA 2010 Local Organising Committee
SUMMARY: Contracted to the 2010 FIFA Local Organising Committee for ten months as the Venue Transport Coordinator for Cape Town. Responsible for the operation of all transport services provided for the teams, staff, media and VIP guests including all parking facilities and access to the Cape Town Stadium precinct.

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PROJECT NAME: 2010 FIFA WORLD CUP - DETAILED TRANSPORT OPERATIONS PLANNING
PERIOD: From: 2006 to 2009
CLIENT: City of Cape Town
SUMMARY: Responsible for the multi-disciplinary team that conceptualised and developed the transport operations plan for the 2010 WC for the City of Cape Town. Included bus shuttles, parking, VIP routes, rail park 'n rides, signage, marketing and transport information for visitors

PROJECT NAME: CLAREMONT PUBLIC TRANSPORT INTERCHANGE
PERIOD: From: 2006 to 2008
CLIENT: City of Cape Town
SUMMARY: Design of a new Public transport interchange including taxi rank and bus terminus. Project leader of the multi-disciplinary team responsible for the planning, conceptual design, detailed design, tendering and construction of the new taxi rank and bus terminus. This included regular liaison with both the bus and taxi operators and design of the operational system.

PROJECT NAME: CAPE TOWN AIRPORT RAIL LINK
PERIOD: From: 2006 to 2006
CLIENT: South African Rail Commuter Corporation (SARCC)
SUMMARY: Internal reviewer of the study undertaken to determine the technical and financial feasibility of constructing a rail link between Cape Town International Airport and the Cape Town CBD.

PROJECT NAME: ANALYSIS OF RAILWAY STATION PASSENGER GATES
PERIOD: From: 1998 to 1998
CLIENT: South African Rail Commuter Corporation (SARCC)
SUMMARY: Survey and modelling of passenger flows in rail stations through access control gates to determine the number of gates required and impact of different technologies.

PROJECT HISTORY (Other Major Projects):

PROJECT NAME: V&A WATERFRONT TRANSPORT MASTER PLAN
PERIOD: From: 2012 to 2013
CLIENT: V&A Waterfront
SUMMARY: Five-year update to the transport master plan including road management, parking analysis, public transport service assessment and NMT facility design

PROJECT NAME: TWO RIVERS URBAN PARK
PERIOD: From: 2012 to 2013
CLIENT: Provincial Government Western Cape

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SUMMARY: Transport planning for the development of 1,000,000 m² sustainable development adjacent to the Black River in Cape Town. Included innovative ways of reducing traffic congestion and improving sustainable use of transport infrastructure

PROJECT NAME: **BAYSIDE SHOPPING CENTRE – TRANSPORT AND TRAFFIC ENGINEERING INPUT TO THE EXPANSION OF BAYSIDE SHOPPING CENTRE IN TABLE VIEW**

PERIOD: From: 2008 to 2013

CLIENT: Acucap Properties

SUMMARY: A number of TIA's to support development applications, conceptual design of parking and road infrastructure

PROJECT NAME: **NEWLANDS RUGBY STADIUM – TRANSPORT FEASIBILITY STUDY FOR THE REDEVELOPMENT OF NEWLANDS RUGBY STADIUM**

PERIOD: From: 2012 to 2013

CLIENT: WPRFU

SUMMARY: Preliminary transport assessment of the feasibility of the development of the Newlands Rugby Stadium. Assessment of future traffic demand, assessment of possible entrance points and calculation of parking requirements

PROJECT NAME: **CULEMBORG QUARTER – TRANSPORT PLANNING**

PERIOD: From: 2007 to 2012

CLIENT: Culemborg Investment Properties (Pty) Ltd

SUMMARY: Detailed TIA for the development of a large 200 000 m² GLA inner-city multi-use facility including integration with the local road, NMT & public transport networks.

PROJECT NAME: **NO 1 SILO BUILDING, V&A WATERFRONT**

PERIOD: From: 2008 to Date

CLIENT: V&A Waterfront

SUMMARY: Transportation engineering services for the development of the 5 Green Star office building including successfully preparing the Green Star application report for the transport component of the submission

PROJECT NAME: **TRAFFIC ENGINEERING SUPPORT TO THE CITY OF CAPE TOWN**

PERIOD: From: 2011 to Date

CLIENT: City of Cape Town

SUMMARY: General support to the functions performed by the City's Traffic Engineering department. Undertaking speed surveys, speed hump investigations, billboard application analysis, intersection conceptual designs and traffic signal designs

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PROJECT NAME: **FESTIVAL MALL – TRANSPORT PLANNING FOR THE UPGRADE OF A REGIONAL SHOPPING CENTRE IN GAUTENG**
PERIOD: From: 2009 to 2011
CLIENT: Acucap Property Limited
SUMMARY: TIA for the extension and upgrade of a regional shopping centre. Included trip generation, intersection analysis, conceptual design and parking analysis.

PROJECT NAME: **NUCLEAR ONE TRANSPORT STUDY**
PERIOD: From: 2007 to 2012
CLIENT: Eskom
SUMMARY: Transport specialist study at three locations as part of EIA process for the proposed Nuclear One power plant

PROJECT NAME: **GREATER KOMMETJIE/SUN VALLEY REGIONAL - TRANSPORT IMPACT ASSESSMENT AND BULK CONTRIBUTION STUDY**
PERIOD: From: 2009 to 2011
CLIENT: JBB Properties
SUMMARY: Regional TIA for development in the area over a 10-year period including roads master planning, detailed TIA and calculation of future development contributions to fund the construction of infrastructure.

PROJECT NAME: **GARDEN ROUTE MALL - TRANSPORT IMPACT ASSESSMENT**
PERIOD: From: 2009 to 2011
CLIENT: Torbell Holdings (Pty) Ltd
SUMMARY: TIA for the development of a new regional shopping centre in George

PUBLICATIONS & PAPERS

- MyCiTi Integrated Rapid Transit System “*It is not just about the bus*”, SAICE Civil Engineering Magazine, September 2013
- Above paper presented at SATC, July 2014
- “*Can BRT be operated sustainably in South Africa?*” Paper presented to the National South African Transport Conference on 8 July 2015.
- “*The BRT / Taxi Hybrid Model*” Presentation at the UATP Conference – 20-22 Oct 2015.