

S U S T A I N A B L E I N F R A S T R U C T U R E S O L U T I O N S

ATTHE **CUTTING-EDGE OF INFRASTRUCTURE** DEVELOPMENT

With its Head Office in Durban and regional office representation nationally, the BMK Group has rapidly emerged to become an established market leader in South Africa's infrastructure sector, providing innovative one-stop solutions to public and blue-chip private sector clients throughout the country's burgeoning infrastructure environment.

Founded in 2005, our fully-fledged South African enterprise has enjoyed a steep growth trajectory, with a client-centric approach, exceptional technical expertise and quality of service contributing to positioning our organisation at the forefront of the industry sector.

The Group, comprising three interrelated business entities, inclusive of BMK Consulting Engineers, BMK Technologies and BMK Property Investments, is a 100% empowered enterprise with a national operations footprint and a formidable project track-record of sustainable infrastructure solutions delivery.

Our young, dynamic and wellqualified members of staff, led by an experienced executive management team, have combined experience with exuberance to energise South Africa's infrastructure sector through their creativity of thought, ultramodern approach and out-of-thebox execution.





GROUP **INTENT**



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In establishing the BMK Group, our vision was to create a Broad-Based Black Economic Empowerment enterprise known for its exceptional professional service, incomparable quality of work and, especially, meaningful interaction with clients.

Backed by an outstanding team of skilled professionals and driven by a passion for innovation in South Africa's infrastructure environment, the realisation of that vision is fast becoming a reality.

Our business intent is simple... it is to develop and nurture powerful and mutually beneficial business relationships with our clients, delivering service excellence and outstanding infrastructural solutions for the benefit of those we serve and, overall, for the greater good of South Africa's built environment.

On reflection and as an emergent player in this business sector, the BMK Group has shown remarkable growth, in spite of the hurdles we have faced - the consequence of recession and a slowly recovering economy. We pride ourselves on operating a resilient, agile enterprise with the capacity to create costeffective and environmentallyfriendly solutions, bringing onstream new, original and superior quality infrastructural assets.

Looking to the future, we are ideally placed to engage with Governmentrelated organisations and the private sector, as well as collaborating with architects, project managers and other professionals on projects demanding a multi-disciplinary approach.

WE ARE RESOLUTE ABOUT REMAINING A FULLY SOUTH **AFRICAN-OWNED ENTERPRISE...**

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and have developed business strategies designed to continue our growth curve, enabling us to expand our operations to service clients beyond KwaZulu-Natal, Gauteng, Western Cape, Eastern Cape and the Free State.

At BMK Group, we're committed to the continuous delivery of sustainable infrastructure solutions, creating tomorrow's infrastructure today.



INVESTING IN SOCIETY'S FUTURE

Because of past socio-economic imbalances, South Africa faces major skills challenges requiring interventions to strengthen the competencies and abilities of, especially, historically disadvantaged people and communities. THE BMK GROUP UNDERSTANDS THE OBSTACLES IMPEDING PEOPLE FROM REALISING THEIR POTENTIAL AND HAS IN PLACE A COMPREHENSIVE CAPACITY-BUILDING PROGRAMME, PROVIDING FOR THE EFFECTIVE TRANSFER OF SKILLS AT BOTH ORGANISATIONAL AND UNSKILLED LEVELS.

COMMITTED TO STRENGTHENING THE APTITUDES AND CAPABILITIES OF INDIVIDUALS AND ORGANISATIONS



We have honed systems and processes for management and maintenance, which we make available to clients so that they may manage projects with confidence. We offer training on the software systems used to manage operations and maintenance schedules, as well as budgeting and day-to-day operational matters. We also have the ability to provide for project implementation solutions with a more labour-intensive approach, giving effect to employment creation and skills transfer opportunities within our projects.

Our capacity-building drive sets out to facilitate the realisation of the development goals of people and organisations, enhancing their abilities and enabling them to accomplish measurable and sustainable results.

The empowerment of both existing and new members of staff is key to this vision. We have established a far-reaching mentorship programme, geared to the sharing of information and learnings between our extremely knowledgeable and skilled senior staff and the young, energetic prodigies in our employ.

We are dedicated to empowering them with the professional and advanced skill-sets necessary for their development and the realisation of their true potential. It is our view that through this programme, our company develops, our people are uplifted and, through their success, we give back to the community we serve.

The BMK Group remains committed to strengthening the aptitudes and capabilities of individuals and organisations for the future benefit of South African society.

MORE THAN A BUSINESS IMPERATIVE



Safe sites and a commitment to environmental protection is so much more than a business imperative for the BMK Group... it's a way of life.

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Striving always to exceed the highest international standards, Safety, Health, Environment and Quality (SHEQ) is ingrained in our business culture.

The BMK Group has adopted an integrated, best practice approach to managing SHEQ issues and works diligently to maintain safe work environments and to minimise exposure of our staff and other stakeholders to health risks. We are equally committed to providing secure operations and giving effect to the controlled monitoring of quality delivery.

We are steadfast in our implementation and maintenance of a Quality Management System and are ISO 9001-accredited. We regularly review and amend this system, introducing the latest technologies. Acknowledging our responsibility towards minimising environmental degradation, we have embraced measures to effectively safeguard the natural environment within which we operate.

The BMK Group is uncompromising in putting the welfare of its people and the well-being of the environment first.

WORKING **TOWARDS POVERTY ALLEVIATION**



Government and the private

ADDRESSING SOCIAL TRANSFORMATION





promote Broad-Based Black



SUSTAINABLE SOLUTIONS FOR INFRASTRUCTURAL DEVELOPMENT



PROVIDING INNOVATIVE ONE-STOP SOLUTIONS TO PUBLIC AND BLUE-CHIP PRIVATE SECTOR CLIENTS BMK Consulting Engineers comprises a number of divisions, inclusive of Transportation, Water and Sanitation, Infrastructure Asset Management, Storm-water Design and Management, Civil and Structural Engineering and Human Settlements.

TRANSPORTATION



WE BRING CONSIDERABLE EXPERIENCE AND EXPERTISE TO THE TRANSPORTATION ENVIRONMENT AND HAVE THE CAPACITY TO SEE PROJECTS THROUGH FROM INCEPTION TO COMPLETION.

Our Transportation Division is a one-stop-shop for the professional planning, design, implementation, management and maintenance of transport infrastructure, inclusive of road, rail, airport and seaport.

Consulting on new urban and rural road and highway design, we give considered opinion to traffic requirements, plant and material availability and cost, as well as future maintenance needs.

Being supportive of the capacity-building ideal, we also assess the feasibility of employing local community members on labour-intensive projects, with the objective of creating new employment opportunities and crucial skills development.

Services: Traffic and Transport

- Planning;
- Feasibility studies;
- Traffic impact
 assessments/state
- assessments/statements (TIA/TIS);

- Traffic surveys and data collection;
- Parking studies; and
- Transportation modelling.

Roads and Highways

- Feasibility studies;
- Pavement evaluations;
- Roads design (urban, rural and highways);
- Intersection/interchange design;
- Bulk earthworks;
- BRT systems;
- Tender documentation and adjudication;
- Contract administration; and
- Site supervision and monitoring.

Road Rehabilitation

- Pavement survey and analysis;
- Road rehabilitation design;
- Drainage repair and upgrade;
- Rehabilitation and rejuvenation of existing roads;
- Safety and capacity analyses;
- Routine road maintenance;
- Re-seal (periodic road maintenance);
- Specifications and contract documents; and
- Project management.

Railways

- New alignments;
- Formation design;
- Formation and ballast rehabilitation;
- Drainage (surface and sub-surface); and
- Refurbishment of rails and sleepers.





WATER AND **SANITATION**

WE ARE EXPERTS IN THE PLANNING AND MANAGEMENT OF MAJOR WATER AND SANITATION ENGINEERING SERVICES. ASSISTING BOTH PRIVATE AND PUBLIC SECTOR CLIENTS.

We undertake detailed feasibility studies, designed to determine appropriate water and sanitation requirements, in line with water accessibility, discharge, processing, terrain challenges and community needs, as well as ongoing operational and maintenance costs. We recommend solutions capable of meeting existing and future water and sanitation needs and prepare detailed business plans, used to motivate the provision of Provincial and Municipal Grants.

In effect, we have the capacity and competency to project manage the entire process, inclusive of generating necessary reporting documentation relating to costs and milestones, in line with Treasury regulations.



Design and management of: Water Services

- Pipelines;
- Reservoirs; Pump stations:
- Reticulation to stand-pipes
 - or taps;
- Water treatment works;
- Bulk systems;
- Abstraction works: and
- Water master plans.

INFRASTRUCTURE ASSETMANAGEMENT

Our engineering consultants are widely experienced in infrastructure asset management, assisting client organisations to assess, analyse and maintain their infrastructure management systems.

Pipeline Condition and

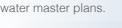
Hydraulic Assessments: We offer structural and hydraulic capacity assessments of existing stormwater, water and sanitation pipeline infrastructure.

Pipe rehabilitation may be undertaken using various methods and is dependent on the age of the infrastructure and specific client requirements. Sophisticated robotic CCTV cameras, which integrate with Municipal GIS systems, are used by our BMK Technologies entity to examine and assess pipelines to accurately determine the extent of rehabilitation required.

Our infrastructure asset management systems may be used effectively to evaluate existing assets and to plan for maintenance and replacement costs.

Sanitation Services

- Waste-water treatment;
- Pump stations;
- Reticulation:
- Dry on-plot systems; and
- Waste-water master plans.





Effective planning and design of flood run-off and stormwater management is critical

to any development.

ENGINEERING

We have a proven trackrecord and boast extensive experience in the delivery of a range of civil and structural engineering designs for residential, industrial and commercial developments.

Services:

- · Foundation design;
- Retaining walls;
- Bridges;

Systems: We provide conditional road and traffic assessments in order to draw-up

Pavement Management

comprehensive rehabilitation and/or maintenance plans. In this regard, we provide data integration into specialised maintenance schedules, allowing for improved resource planning, financial management and reporting.

Services:

- Conditional assessments; Information and data
- management; Data models;
- Valuation and life-cycle costs;
- Financial management: Operations and
- maintenance plans; Data integration; and
- Programme and project management.

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- Applying our extensive experience and expertise in terms of conditional inspection, as well as design and maintenance services, BMK Consulting Engineers is an acknowledged leader in all storm-water and drainage systems. In addition, we offer improvement and management services pertaining to existing storm-water systems and assessments of existing
- structures, delivering asset value and projected life-cycle

costs. We also extend software training, which provides for automated scheduling of regular planned maintenance.

Services:

- Hydrological and hydraulic modelling;
- Floodline determination;
- Storm-water management;
- Flood and erosion protection works;
- Drainage master plans; and
- GIS integration.

CIVIL AND STRUCTURAL

- Culverts;
- Retail developments;
- Office developments;
- Cemeteries:
- Residential developments;
- Commercial developments;
- Low-cost housing
- developments;
- Mixed-use developments;
- Airports;
- Stadiums; and
- Golf estates.





We are specialists in supplying housing solutions which provide cost-effective infrastructure for the successful service delivery of top-structures, platforms, roads and storm-

water drainage, as well as water and sanitation for housing projects, ranging from low-cost to high-end residential units, dependent on the needs of the client or developer.

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It is our view that by methodically planning and professionally managing housing developments, highly functional, environmentallyfriendly and cost-effective solutions are possible.

Our knowledge and experience in the housing sector has provided us with a broadbase of professionals to whom we are able to turn to for a multitude of disciplines, ensuring our proficiency in delivering cost-effective, timesaving 'turn-key' operations in which we assume overall development responsibility. This includes planning, design and construction, through to final delivery. The benefits behind the adoption of such a solution include:

- Reduced total time during the contractual process by having a single process in place, instead of two separate ones. This does not, however, necessarily imply shortened construction time:
- A seemingly 'lower cost' when integrating 'all' the elements under one provider;
- The minimisation of orders of change (those which generate increased costs against the contractor) during the implementation of projects, given that the changes and adjustments are the responsibility of only one party;

• Practicality in terms of the ideal solution for projects with limited budgets; and

 The peace-of-mind afforded to clients upon handing over full responsibility of projects to a single organisation, given that it is far easier for clients to manage and communicate with a single provider.

We also focus on structural assessments of existing RDP housing, providing an indication of condition and status. These assessments form the basis for the Department of Human Settlements to allocate budgets and undertake rectification work on such units, for which we have taken on 'turn-key' operations, as a one-stop solution.

Our services include, but are not limited to:

- Assessment of bulk services (roads, storm-water, sanitation and water):
- Assessment of existing structures;
- Design of: Platforms; Bulk earthworks; Roads and pavements; Storm-water, waste-water and water reticulation; and Top structures;
- Construction estimates;
- Tender and contract documentation;
- Site supervision and monitoring; and
- Close-out.

PROGRAMME AND PROJECT MANAGEMENT

With a strong project management ability, the 3MK Group offers a range of services geared to ensuring that projects are correctly specified, budgeted and managed.





Our programme and project management services include:

- Initial needs analysis;
- Feasibility studies;
- High-level scoping and cost determination;
- Project motivation;
- Detailed planning and costing;
- Budget management
- Tender and contract documentation;
- Project and construction management;
- Management of service providers;
- Reporting requirements; and
- Quality control and sign-off.

PORTFOLIO OF PROJECTS



We have a flawless track-record of infrastructure development delivery. A selection of projects undertaken, although not exhaustive, includes:

PAVEMENT MANAGEMENT SYSTEMS

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Roads Asset Management for the Johannesburg Roads Agency	Professional service for visual condition assessments of all the roads in the City of Johannesburg and formulation of visual condition index and maintenance programmes for JRA	Johannesburg Roads Agency	R26 000 000
Roads Asset Management for the Umlalazi Municipality	Review and develop pavement management system of Umlalazi Municipality (urban roads)	Umlalazi Municipality	R400 000
Pavement Management for the Umhlatuze Municipality	Provision of consulting engineering service for updating and implementation of the pavement management system of the Umhlatuze Municipality for a three-year term	Umhlatuze Municipality	R3 000 000

INFRASTRUCTURE ASSET MANAGEMENT SYSTEMS

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Asset Management of Storm-water Networks	Conditional assessment of storm-water infrastructure	EThekwini Municipality	R65 000 000
Asset Management of Storm-water Networks	Professional services for principal storm-water visual/ laser inspections/audits, throughout the City of Johannesburg	Johannesburg Roads Agency	R18 000 000
Asset Management of Sidewalk Networks	Professional services for principal sidewalk visual inspection/audit, throughout the City of Johannesburg	Johannesburg Roads Agency	R14 000 000

EXCEPTIONAL TECHNICAL EXPERTISE AND QUALITY OF SERVICE CONTRIBUTING TO POSITIONING OUR ORGANISATION AT THE FOREFRONT OF THE INDUSTRY SECTOR.



ROADS AND BRIDGES

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Upgrade of Gravel Roads to Asphalt Surface	Professional services for the upgrading of gravel roads to surface standards inclusive of associated storm-water in Drieziek, Orange Farm and Diepsloot	Johannesburg Roads Agency	R265 000 0000
Construction of Bridges	Professional services for construction of the pedestrian bridges in Klipspruit, Kaalfontein, Diepsloot and Slovo Park	Johannesburg Roads Agency	R80 000 000
Construction of Roads in Colenso	Civil engineering services to undertake design and oversee construction of asphalt roads in Colenso	Emnambithi Municipality	R15 000 000
Construction of Road Network in Vlakspruit	Professional services for the design and construction of roads and storm-water in Vlakspruit	KwaDukuza Municipality	R50 000 000

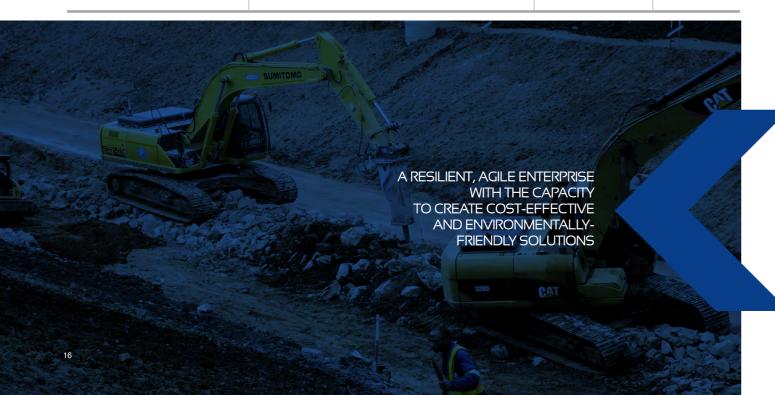
PORTFOLIO OF PROJECTS

RAILWAYS

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Bluff Road: Emergency Storm-water Upgrade	Bulk storm-water upgrade. Specialised pipe jacking beneath Transnet Railway	EThekwini Municipality	R75 000 000
Formation rehabilitation and new drainage system for Jeppe station to George Goch station	Design and management of new drainage system, formation and ballast rehabilitation as well as retaining walls for Jeppe station to George Goch station	PRASA	R65 000 000

STORM-WATER DESIGN AND MANAGEMENT

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Sydenham Bulk Storm-water Upgrade	Emergency storm-water investigation, design, and construction management of bulk storm-water systems and attenuation facilities	EThekwini Municipality	R50 000 000
Bhekani Dlamini New Culvert and Canalisation, Umlazi	Professional services for construction of new culvert and canalisation	EThekwini Municipality	R50 000 000
Upgrade of Storm-water Lines : Gale Street and Surrounds	Engineering services to undertake design and construction of 1 800 X 1 400 culvert	EThekwini Municipality	R35 000 000



WATER AND SANITATION

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Upgrade of Sundumbili Waste- water Treatment Works	Refurbishment of five bio-filters and under-drainage. De-silting of maturation ponds.	iLembe District Municipality	R50 000 000
Groutville Sewer Upgrade	Design and implementation of new sewer reticulation, including pump stations for the Groutville housing development (including rural settlement)	iLembe District Municipality	R150 000 000
Installation of Water and Sewer Services for Jamestown Informal Development	Engineering services to undertake design and construction of water and sewer reticulation	Stellenbosch Municipality	R10 000 000

INFRASTRUCTURE AND STRUCTURAL ENGINEERING

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Cedar Point, Industrial Development	Manage preliminary to detailed design, and quantify roads, sewers, storm-water, water reticulation, and bulk earthworks/platforms tender documentation, contract admin for new industrial park	Hazelside Property Developers	R120 000 000
Moses Mabhida Stadium	Civil engineering design of underground services	Local Organising Committee	R4 Billion
King Shaka International Airport	Bulk infrastructure, hydrology and hydraulic modelling	iLembe Engineering Joint Venture	R6 Billion

HUMAN SETTLEMENTS

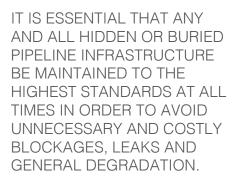
PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Structural Assessments of RDP housing for the Madadeni and Osizweni Areas - Newcastle	Undertake visual inspections, assessments and reporting of structural defects and damage to existing RDP housing to conform to NHBRC standards	KZN Human Settlements Department	R120 000 000
Riverview Estate Turn-Key Project	Undertake inspections, assessments and rectification of structural defects and damage to existing housing to conform to NHBRC standards	KZN Human Settlements Department	R30 000 000
Edendale Wirewall Housing Project	Inspections, assessments and rectification of housing to conform to NHBRC standards	KZN Human Settlements Department	R187 000 000
Mpophomeni Housing Project Turn-Key	Undertake inspections, assessments and rectification of structural defects to conform to NHBRC standards	KZN Human Settlements Department	R56 000 000

COMMUNITY-BASED PROJECTS

PROJECT NAME	DESCRIPTION OF WORKS	CLIENT	PROJECT VALUE
Sihlanzimvelo Stream Cleaning Project	Stream cleaning, monitoring and maintenance programme in Inanda, Ntuzuma, KwaMashu and Umlazi, as part of an EPWP initiative	EThekwini Municipality	R50 000 000
EPWP Technical Support	EPWP technical support to Eastern Cape Department of Roads and Public Works	EPWP: Department of Roads & Public Works, Eastern Cape	R25 000 000
Ntshawini Access Road	Design and management of labour-based construction of road and associated drainage	KwaDukuza Municipality	R14 000 000
Nquthu Crèches	Design and management of labour-based construction of crèches in the Nquthu area	Nquthu Municipality	R10 000 000









BMK Technologies is a dedicated and specialist pipeline survey and cleaning operation, with a sound reputation for the delivery of professional solutions and client service excellence. We have the capacity to undertake detailed maintenance inspections, pre-rehabilitation assessments and emergency inspections on behalf of a wide range of clients.



Employing state-of-the-art equipment, technology, software and remotely-controlled faultfinding equipment, our highly skilled professionals investigate, assess and report on any form of pipeline infrastructure, while constantly ensuring effective, world-class environmental management, the conservation of resources and the prevention of pollution. In addition and as part of our one-stop solution provision, our team of professionallyregistered engineers is on hand to immediately provide expert advice and problem resolution services.

We have invested in the highly flexible, robust and sophisticated iPEK pipeline inspection system: • Used and trusted in more than 100 countries around the

- world; and • For our diverse subterranean
- infrastructure inspection activities. Our range of advanced and remotely-operated Rovion crawlers, equipped with pan and tilt camera systems, micro-sized CCTV and push rod camera systems enable us to closely examine and capture data relating to difficult-to-reach areas and in pipeline interiors from 100mm to 2 000mm in diameter.



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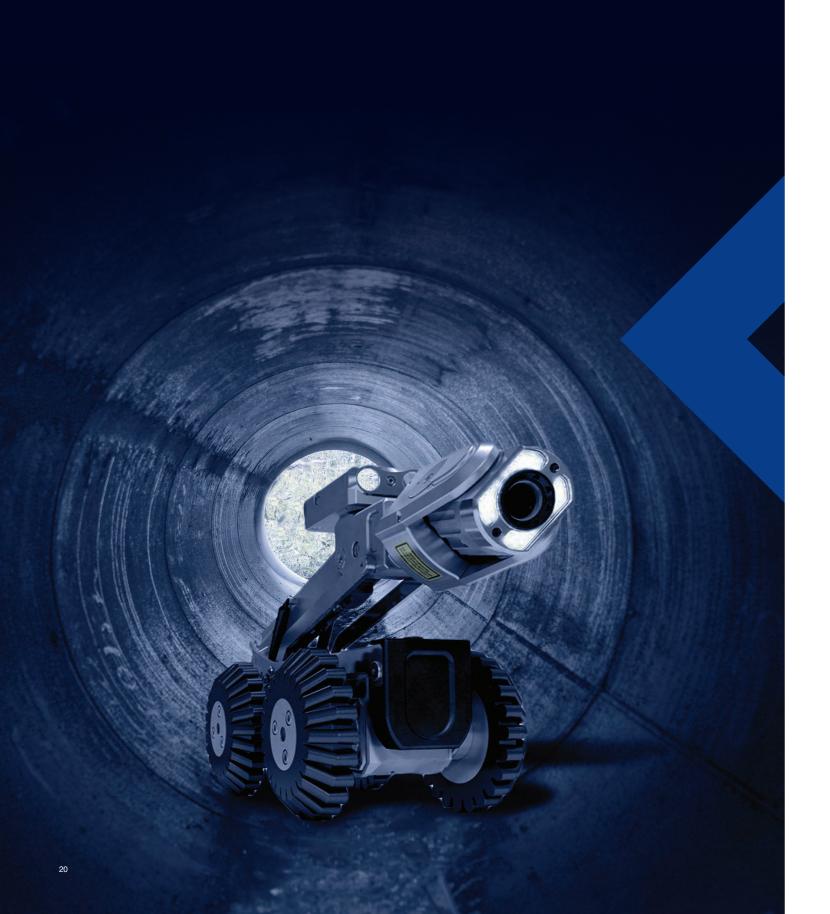
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We have grown to become a leading force in pipeline inspection, data-gathering and infrastructure assessment provision in South Africa.



These light-equipped crawlers transmit detailed information and visual material back to high-level control panels located in our fleet of iPEK-based and custom-built vehicles, enabling our compilation of comprehensive assessment reports for clients, together with video evidence of inspection outcomes.

The benefits associated with the use of such technologicallyadvanced inspection equipment include:

- The elimination of any subjectivity associated with
- reporting; • Video evidence of pipeline interiors for ease of reference;
- Ease of access up to 1 000 metres from a single point of entry;
- Ability to conduct inspections in all flow conditions; and
- Cost-effectiveness.

PIPELINE MANAGEMENT

In order to make informed decisions and to provide a professional assessment of inspected pipeline infrastructure, BMK Technologies utilises the innovative and advanced WinCan VX software application for its data capture, analysis and reporting endeavours.

This software package gives us the ability to generate queries in order to better understand maintenance requirements and to detail results in report or map form, whilst also generating comprehensive assessment documents, using such inputs as data, photographs and schematic illustrations. We also offer GIS mapping of infrastructure, providing clients with updated asset registers and conditional assessments.











CLEANING ACTIVITIES

With inspections and assessments completed, BMK Technologies also has the ability to offer clients drain and pipeline cleaning services, utilising an array of available high-pressure jet/vacuum cleaning equipment, designed for a variety of cleaning applications.

We undertake high-pressure drain and pipeline cleaning to clear blockages, complete routine maintenance work or for camera-based inspections. We also have the capacity to provide for highpressure industrial and cylinder cleaning operations. Our fleet of pipeline cleaning vehicles includes combination trucks for simultaneous high-pressure water jetting and vacuuming operations, vacuum trucks for wet and dry applications and highpressure jetting trucks.

In essence, our services include:

- Assessment and comprehensive report preparation, utilising WinCan software;
- Pipeline and underground infrastructure conditional inspections, using Rovion crawlers with CCTV to identify: Leak detection; Deterioration; Pipe intrusion; Joint displacement; Manhole location; Surface damage; and Pipe diameter measurement; and
- High-pressure cleaning, using jetting vehicles.

So, for any pipeline failure, such as blocked drains and sumps, storm-water flooding or sewer overflows, or for proactive pipeline maintenance, BMK Technologies has a tailor-made solution, conducting thorough routine inspections and emergency videobased surveys, as well as jet cleaning and vacuum operations.





BMK Property Investments is an existing property-holding and development entity which actively works within both the private and parastatal sectors.

This entity of the BMK Group is set to significantly expand its property development activities into the future.



"WE DON'T JUST BUILD INFRASTRUCTURE, WE TANGIBLY IMPROVE THE QUALITY OF LIVES OF PEOPLE AND RAISE THE PROFILE OF A NATION"

ENGAGE US

The BMK Group is an industry leader with a flawless performance record, perfectly positioned to deliver world-class solutions for the built environment in South and Southern Africa. Ours is a dynamic, energetic and fully South African enterprise geared to the delivery of new, original and superior quality infrastructural assets. We invite you to engage with us for your next infrastructure sector solution. Please feel free to contact us:

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The BMK Group is also represented in: Woodmead, Johannesburg | Century City, Cape Town | Greenacres, Port Elizabeth | Bloemfontein

BMK Consulting Engineers | BMK Technologies | BMK Property Investments