



P&B CONSULTING

Civil and Structural Engineering Consultants

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Introduction

- ▶ P&B Consulting Engineers (pty) ltd is established in 2020.
- ▶ This small size consulting engineering firm offers the following engineering services:
 - ▶ Structural Engineering design and detailing
 - ▶ Civil engineering services
 - ▶ Forensic investigations
 - ▶ Structural assessment, remedial and rehabilitations
 - ▶ Seismic assessment
 - ▶ Construction monitoring and quality control
 - ▶ Assessment and design of Innovative Building Technologies
 - ▶ Infrastructure Asset Management



Vision and Mission

P&B Consulting's team of experienced professional engineers is committed to providing innovative, cost-effective and sustainable engineering solutions to clients in the public and private sector.



Structural Engineering

- ▶ P&B Consulting strives to meet the high expectations of the clients. Our expertise allows architects to realize their visions, while providing an optimum solution to our clients.
- ▶ We provide innovative solutions to our clients and optimise the design of the buildings to perform well throughout the structure's lifetime while minimising the social and environmental impact of the project.
- ▶ Our focus sectors include the following:
 - ▶ Residential and commercial developments
 - ▶ Mining
 - ▶ Industrial
 - ▶ Government facilities
 - ▶ Community centres
 - ▶ Stadiums and sport complexes
 - ▶ Educational facilities
 - ▶ Hospitals and health care



Civil Engineering

P&B Consulting team of experienced professional engineers is committed to providing innovative, versatile, cost-effective and sustainable civil engineering services and human settlement engineering solutions to our valued clients in the public and private sector. P&B Consulting long-standing working relationship with various institutions in the public sector have fostered extensive experience and knowledge of political, socio-economic and environmental factors that may impact township development projects in urban and rural areas. The knowledge base allows us to make informed planning and design decisions that provide useful short term and sustainable long term project solutions for the client. P&B Consulting integrated civil engineering services include:

- ▶ Plan and design of paved and unpaved roads
- ▶ General civil works design, supervision and certification
- ▶ Professional advice on fill certification and underpinning of structures
- ▶ Stormwater design
- ▶ Design of low-cost housing civil works as part of the RDP scheme to relocate informal settlements;
- ▶ Specialist design in dolomitic conditions



Forensic Investigations

P&B Consulting team of experienced professional engineers inherits years of experience in forensic assessment of residential and commercial structures. Our in depth knowledge of the design codes and construction methods builds a bridge between various engineering disciplines and the building sciences and trades,

Forensic Engineering services offered by P&B Consulting Engineers include:

- ▶ Damage Assessments / Failure assessment for Residential units
- ▶ Commercial Structures
- ▶ Investigations associated with insurance industry claims
- ▶ Insurance-related investigations including the causation and origin of damage to residential and commercial structures
- ▶ Investigations into unhealthy interior environments and adverse effects on the occupants of these structures.



Structural Assessment, Remedial and Rehabilitations

A large number of structures are deteriorating, often prematurely, and need remedial measures to reinstate their safety and/or serviceability. Consequently, the need for rehabilitation has grown considerably in recent years due to the economic factors that dictate to clients to utilise their existing infrastructure beyond the intended life span which the infrastructure was originally designed.

While costs associated with repair of deteriorating concrete structures can be substantial, costs resulting from poorly designed or executed repairs may be even higher. The technical and economic success of repair projects depends on a range of factors, including but not limited to a proper condition assessment of the structure, design and execution of remedial measures, and design and implementation of maintenance strategies.

P&B Consulting Engineers offers the following to the clients:

- ▶ Damage Assessments / Failure assessment and cost analysis
- ▶ Preliminary assessment reports
- ▶ Comparative design solutions
- ▶ Insurance-related investigations
- ▶ diagnostic testing (strategies, test methods and interpretation of results),
- ▶ Development of repair strategies.



Seismic Assessment

The seismicity of Africa, especially Southern Africa is, by world standards, very moderate. However, the activities remain constant by ways of smaller tremors and occasional large tremors and earthquakes. The areas that most of the seismic activity are recorded are the Western Cape, Free State and Highveld area.

Seismic performance is a structure's ability to sustain its functions, such as safety and serviceability, at and after a particular earthquake. Through a seismic assessment, our engineers will determine if the structure is able to meet its operational functions for which it was designed.

P&B Consulting Engineers offers the following to the clients:

- ▶ Preliminary Seismic assessment of the existing structures
- ▶ Detailed analysis and reporting of the existing structure
- ▶ Designing of the seismic rectification and rehabilitation strategy



Construction Monitoring and Quality Control

Project Monitoring plays a vital part in project management as well as the project manager's decision making processes.

Through our extensive management expertise and knowledge', P&B Consulting Engineers will ensure that projects are completed successfully and delivered to the client on time and within budget.

P&B Consulting Engineers integrated project management services include:

- ▶ Planning and design coordination;
- ▶ Coordination between the client, consultants and other project stakeholders;
- ▶ Implementation and management of contract documents (i.e. FIDIC, GCC or JBCC);
- ▶ Project risk management;
- ▶ Quality assurance and quality audits;
- ▶ Preparation of bid documentation and participation in the evaluation processes;
- ▶ Preparation of agreements, guarantees and certificates;
- ▶ Project close-out procedures and reports.
- ▶ Site quality control and progress inspections



Innovative Building Technologies (IBT)

In terms of the South African legislation prior to implementation of the Innovative Building Technologies, the construction system (IBT) must be assessed and certified by relevant authorities. With vast experience in assessment and implementation of the innovative building technologies, we can assist you to achieve regulatory compliance and support you through the successful construction of the project.

P&B Consulting offers services in the following areas:

- ▶ Product research and development
- ▶ Regulatory compliance support and advise
- ▶ Rational design report
- ▶ Quality control inspections during construction
- ▶ Post construction assessment reports



Infrastructure Asset Management

Building, operating and maintaining infrastructure is a significant investment for Government as well as private infrastructure owners and operators. We provide services that help clients identify, plan, procure and deliver infrastructure which in turn delivers economic and community value.

Our focus is to help improve efficiency and effectiveness at each stage of a project's lifecycle delivering enhanced value for the investment.

P&B Consulting offers services in the following areas:

Planning	Procurement	Project Delivery	Improvement	Project Review	Facilitation
Strategy development	Strategies & Plans	Project Management	Performance Management	Lessons Learnt	Governance
Feasibility study	Document Development & Production	Engineer & Engineer's Rep	Frameworks	Contract Compliance	Contracts
Risk Management	Tender Management	Operational Readiness & Transition Support	Development	Safety assessments	Workshops
Estimation	Evaluation	Quality control	Monitoring	Project challenges	Connect People / Organisations
Business Cases	Negotiation				
Asset Management Planning					



Contact us

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