

# Architect and Builder

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## PROJECTS



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Strand

#### Architects & Principal Agents

Studio D'Arc Architects Western Cape

#### Quantity Surveyors

DV Boland Consulting

#### Consulting Engineers:

**Civil/Structural**

KV3 Consulting Engineers

**Electrical/Mechanical**

Clinkscapes Maughan-Brown

**Plumbing**

Benatar Consulting

#### Land Surveyor

Rene A Pesch Professional Land Surveyor

#### Town Planners

Urban Dynamics Western Cape

#### Main Contractor

J van der Sluys

#### Photography

Studio D'Arc Western Cape

J van der Sluys

# Hibernian Towers

The iconic development, situated on the beachfront of the Strand, is instantly recognisable.

It comprises apartments, offices and shops. All the apartments overlook False Bay, Table Mountain or Cape Point beyond, as well as the Hottentot Hollands Mountains.

**T**he Hibernian Towers development is ideally situated, less than half an hour from Cape Town, close to the famous Cape Winelands and several wonderful golf courses. It is located overlooking a 5km stretch of beach, where the warm waters of the Indian Ocean lap the shore.

#### ARCHITECT'S REPORT

##### Brief

Quaypower, the owner, approached the architect with the request that he add value to the property with his concept. At this stage, the aim was to sell the property to a developer. The architectural aspect and challenge was a financial challenge.

The Developer was interested in optimising the sales price of the land and had no specific instruction or actual design brief on what the final building should consist of. He was awaiting the architect's proposals. Kobus Coetzee, of Studio D'Arc Architects, simply worked within the town planning scheme and took account of environmental and neighbourhood sensitivities.

##### Statement on Architecture

No shape is unique any more. The serious architect, like the composer of music, strives to fuse the new and the unknown with elements of the known to create original architecture.

Man can experience and enjoy space but man cannot create space because space already exists everywhere. In the shaping and defining of space lies the art of architecture and the experience thereof.

##### Site

The location of Hibernian Towers lies in the middle of the Strand's Beach Road, terminating at the Lourens River. The development looks down on a wide, white sandy beach with the Table Mountain range extending to Cape Point, forming the backdrop to False Bay and Helderberg and Hottentots Holland mountain range forms the backdrop on the other side.

##### Design Concept

After initial site analysis from a town planning point of view, Studio D'Arc Architects





The development comprises a four-storey commercial atrium and a twelve-storey apartment atrium



intentionally did not proceed with the conceptual design before consultation with the following role players was conducted:

- The Strand Sectional Title Association (representing the overwhelming majority of beach front property owners).
- The Town Engineer regarding roads and services
- The City Town Planner
- The Fire Chief regarding fire and safety

The architecture of Hibernian Towers is thus, the result of the function of the building and a careful study and consideration of the following:

- The wind impact & environmental effect
- Influence on the views of existing surrounding property owners
- Traffic implications
- Town Planning scheme limitations

- Emergency and fire control
- Escape routes in a fire situation
- Availability of water in a services breakdown and/or fire situation
- External and internal pedestrian patterns
- Car and pedestrian routes (internal and external)
- Future maintenance and aesthetic effect on the environment
- Appreciation of the environment by the owners

#### Sun Control

The proposed development entailed the rezoning of the property from General Residential Zone 1 to Central Business Zone. This proposal fell within the long-term master plan of the City.

Although the design was thus based on Central Business Zoning, it became a time consuming task to talk and listen to all the neighbours and to prove that the way the scheme was applied was in their own best interests. After this round, the process was turned over to the Town Planners for the application and public participation process.

#### The Building

##### Special Features

The development comprises a four-storey commercial atrium and a twelve-storey apartment atrium. There is a heated indoor swimming pool for the owners use. All the apartments and offices have views of False Bay and the tenants and owners are intimately aware of the surrounding mountains and the sea. The mix of shops, restaurants, offices and apartments connect with the open atriums in a lively vibrancy.

##### Details of the Building Components

- 10 ground floor shops and restaurants
- 13 Offices are situated on the 2nd level



- 26 studio apartments on 3rd & 4th levels
- Heated indoor swimming pool on level 4
- Roof garden on level 5
- 83 tower apartments
- 250-car parking garage
- Total floor area of 35,000m<sup>2</sup>

#### Contract

The construction contract, which was valued at R200 million, commenced in May 2006 and practical completion was achieved by March 2009. This project was completed on the programmed date after the inclement winter weather was taken into consideration.

The building site was awarded the first prize in the Western Cape and the second prize in South Africa for achieving outstanding Health and Safety standards. The fact that the project was completed on budget and on time is the result of the dedication of the professional team and the main contractor.

#### Shell and Core Design

Utilising the views was an uncompromising task that Kobus Coetzee took upon himself. The project is conceived as a part of the backdrop that consists of beachfront developments, on what the architect believes is one of the most beautiful bays in the world. The exterior shape of Hibernian Towers does not attempt to imitate other buildings or styles. Instead, it tries to give new meaning to known shapes and forms.

Kobus Coetzee had to predict the future tenant demand and design a project that could and would cater for the unexpected.

It was also the architect's task to provide future owners of the apartments with a strong sense of exclusivity.

The central commercial atrium acts as a point of arrival as the apartment owners



A tensile fabric roof provides a waterproof cover to a kidney shaped atrium

enter the building via said commercial atrium. Diffused light infiltrates the atrium through a window in the roof garden on the 5th level.

Bridges link the eastern and western apartments in the tower block. These bridges are located in an enclosed 12-storey atrium, which provides views of False Bay and the surrounding mountains.

#### Conserving Energy

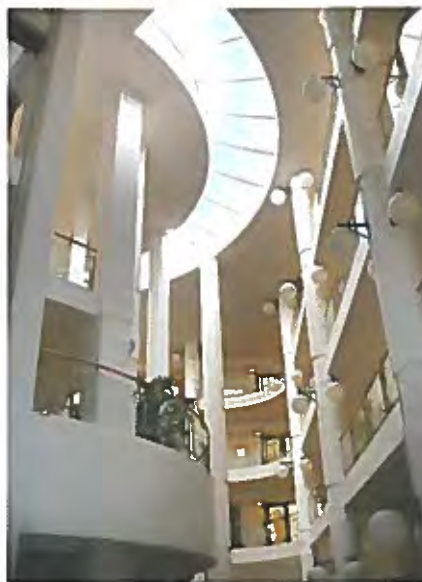
Environmental performance was a key factor. There is a direct conflict between prevention of sun penetration and the westward views on False Bay and the Table Mountain range. Energy demand is reduced by the following:

Maximise daylight penetration and reduce artificial lighting; Energy efficient





The mix of shops, restaurants, offices and apartments connect with the open atriums in a lively vibrancy



lights with presence sensors in the parking garage; Last, but most importantly, most of the big windows have large balcony overhangs above to minimise sun penetration and load on the air-conditioning during the hot summer months. The building was designed to function without air-conditioning, but the developer instructed the architect to add a provision for air-conditioning to his design.

The single main electrical entry into the building is supported by a double system of standby generators and UPS units.

#### Internal Master Planning

Shops, offices and apartments are arranged around the central atrium of four storeys. Three large window slots are provided in the commercial atrium to enhance

awareness of the environment. The Tower apartments are arranged around a 12-storey atrium in order to maximise the views that all the apartments have of False Bay.

#### Look and Feel

The visitor is greeted by the airiness and natural light of the main entrance. It has already been reported that an important feature of the building is that visitors experience an acute awareness of the environment.

#### TENSION STRUCTURES COMMENT

Dominating the skyline on the Strand beachfront is a structure of fabric, steel and cables, forming the visual peak of Hibernian Towers. The curves of the tensile fabric structure sweep upwards, tapering into the cruciform shaped steel mast which reaches into the sky. Adding visual appeal at night, is the glow of the fabric membrane, illuminated by top surface lighting.

Tension Structures took its design brief from the architects, Studio D'Arc, to design an elegant and functional roof at the top of the building to cover aesthetically unappealing tanks and pipes, and came up with a striking structure on the apex of the Towers.

The curves of the fabric structures on the rest of the building complement the circular forms of the building. At the heart of the residential part of the building, a tensile fabric roof provides a waterproof cover to a kidney shaped atrium, the translucent fabric providing natural lighting to this core area. A similar fabric membrane covers the atrium of the commercial area, and these free form fabric membranes feature flying masts with cables to support the apex of the cone. This interesting structural element of stainless steel cables







The visitor is greeted by the airiness and natural light of the main entrance



and fittings enhances the overall effect and atmosphere of the atriums. In a similar way, the walkway to the apartments entrance has been given weather protection with these functional fabric structures.

The theme of the cone shaped structure which tops the tower of the building is repeated in smaller versions at ground level where tensile structures line the pavement

along the shopfronts, giving shoppers protection from sun and rain. Each of these has its own flying mast, but in this case, the mast protrudes through the fabric at the tip of the cone to expose the stainless steel cable fittings. The best quality imported fabric and cable systems were used throughout this project, and they provide durable weather protection while letting in



soft natural lighting, saving on energy costs and thus carbon emissions. The translucent fabric, together with the overhead flying masts and their stainless steel supporting cables, provides an elegant and innovative roof structure which gives a distinctive appearance to the building.

A tensile fabric sculpture, three stories in height, in the central atrium was the final

brief. This sculpture had to replace a large glass chandelier, which was originally specified but had to be omitted due to budget constraints. The final design of this sculpture was a twisted fabric sail, suspended by a number of stainless steel cables, and bears testimony to the creativity and engineering expertise of the team entrusted with this task.

#### Advertisers on this Project

**Benatar Consulting**  
Consulting Plumbing Engineers

**Clinkscales Maughan-Brown**  
Consulting Electrical and Mechanical Engineers

**Corobrik**  
The largest manufacturer, distributor and exporter of bricks and allied building products in Africa

**J van der Sluys**  
Main Contractor

**KV3 Engineers**  
Consulting Civil and Structural Engineers

**Tension Structures**  
Specialists in tensile structures

**Urban Dynamics Western Cape**  
Town and Regional Planners

