

PROJECT FEATURE

DISCOVERY SABLE PARK

DISCOVERY SABLE PARK
Century City, Cape Town

CLIENT

Rabie Property Group

PROJECT MANAGER

Cogent

ARCHITECT

dhk

QUANTITY SURVEYORS

RLB Periad Quantity Surveyors

CIVIL & STRUCTURAL ENGINEERS

Aurecon

ELECTRICAL ENGINEERS

ODP Lighting & Electrical Design

BULK SERVICES & INFRASTRUCTURE (ELECTRICAL)

DESCOM: Bigen Africa

MECHANICAL ENGINEERS

BW Consulting Engineers

FAÇADE ENGINEERS

LH Consulting Engineers

FIRE CONSULTANTS

SolutionStation Consulting Engineers

LAND SURVEYORS

David Helig & Abrahamse

INTERIOR DESIGNER

dhk Thinkspace

HEALTH & SAFETY CONSULTANTS

Eppen-Burger & Associates

WET SERVICES & LIFT CONSULTANT

Elekon Consulting Engineers

CIVILS AND TRANSPORT CONSULTANT

HHO Africa

ENVIRONMENTAL CONTROL

Ecosense

GREENSTAR CONSULTANT

PJ Carew Consulting

TOWN PLANNERS AND LANDSCAPE ARCHITECTS

Planning Partners

CLOUD-BASED INFORMATION MANAGEMENT

Iqela Software Solutions

DHK SPECIFICATION CONSULTANT

Schumann Consult

DISCOVERY PROJECT MANAGER

Baseline Project Management

DISCOVERY TECHNICAL CONSULTANT

MWK Engineering

MAIN CONTRACTOR

WBHO Construction

PHOTOGRAPHY

Dave Southwood

Courtesy of Discovery

Rabie Property Group set out to create an iconic front face for their blossoming mixed-use precinct. Sitting on the edge of Sable Road, a prominent entry point into Century City, the development would form a gateway landmark for 'Bridgeways Precinct'. This new neighbourhood comprises a mix of lifestyle and commercial functions, creating a 24 hour atmosphere and a solid context for new office and residential complexes.

Site

The Sable Park Office precinct is located on a site situated on the South-West end of the Bridgeways Precinct. It is bounded by Sable Road to the south, Bridgeways Road to the north and Axis Lane to the west, with a direct physical and visual link to the N1 highway. Situated at the southern edge of the precinct, it boasts unobstructed panoramic views of Table Mountain.

Conceptual Approach

The building's composition was inspired by shuffling forms that operate independently and adapt to their immediate surroundings. Originally dubbed; the 'macro-chip shuffle', the building was designed to appear as a single large complex and simultaneously as four small independent volumes in symphony – depending on where it is viewed from. The four volumes are further broken down into thirds; a double height layered mass and a single height crystalline cube. Each of these thirds shift and jump on the horizontal and vertical plain to achieve maximum views and optimal orientation.



DISCOVERY SABLE PARK



On an abstract level, the spaces are duplicated, and the volumes are inverted. This simple application was the singular method to the complexity of the resultant macro-articulation which forms a setting for a series of tableaux with an iconic mountain backdrop. In effect, this complex was set out in scenes that take inspiration from aspects of cinematography and film.

Design

Sable Park is a pair of twin blocks orientated inwards to Bridgeways Road where both entrances are located. Each of the buildings is split into two wings separated by a large quadruple volume. These two spaces are connected by a series of bridges spanning across the atrium at the edge of the main core. The core was conceived as a parody of a 'service block' and was satirically designed as a large solid concrete cube, shoved between the two glass wings. It is a stand-alone element which is exposed on both sides

of the building. From the rear this concrete cube protrudes and is visible from over a kilometre away. On the front end at the foyer, it is clad in oak timber panels, with the lift doors visible from the street and neighbouring blocks. It forms the proverbial heart of the building, circulating people left to right, up and down and into different chambers in the building.

To the right of the atrium, the concrete cube is completely separated from the office wing, leaving a large open slot that cuts through the building connecting the front to the back and creating a significant visual vista of Table Mountain in the distance. This space along with a first-floor lounge are just some of the many pause points designed in the building to facilitate human interaction.

There are a series of terraces on all four sides of both blocks that were designed as winter and summer gardens. These five gardens were carefully positioned to integrate with the overall form while

being independent spaces relating to specific parts of the precinct, creating optimal outdoor lounges for all seasons.

The building mass expresses different characteristics from different vantage points. Viewed from Sable Road to the south, the blocks take on a sober, linear articulation, maximising the views of the mountain and creating a robust edge to the road. From within the precinct on the north end, the masses all shift and turn moving towards and away from the site boundary, creating a more permeable edge and resulting in a series of habitable forecourts that encourage pedestrian activity.

Structural Approach

A large part of the building's concept was manifested in its structure. Creating distinct floating boxes that veer off and cantilever beyond one another was one of the biggest challenges. The engineers

and designers worked closely together right from early concept phase to put the pieces in place to achieve this.

The most challenging aspect of the project was the buildability of a 'shadow gap' between the boxes to make them appear to hover above one another. To achieve this, a complex double slab component was introduced. The gap is achieved by a perimeter concrete downstand beam projecting into the ceiling void below, and extending outwards to form a protruding flange, or architectural slab, to echo the plan of the floor slab below. The reality of this component was questionable at times, but the desired result was achieved. The 'shadow gap' occurs at every instance where the two distinct boxes come into contact; which is just below the second floor, when the layered double height mass is on top, or just below the third floor, when the glass cube is on top.





Façade

In accordance with the shifting floor plates, two systems of glazed façade have been installed over the three levels of office. A deliberate, yet playful interchange of these systems contributes to the aesthetic complexity of the building.

The façade activity is borne out of both the North and South blocks being inverted creating a set of four similar yet unique blocks. The atrium is contained by full height double glazed curtain walls on both the entrance and the rear faces of each block. These vertical link the alternated façade typologies of the office floor plates. The result is that one wing of each building is clad with a single level of curtain

wall, positioned below two levels of deep-cilled shopfront, which in turn, is located behind the aluminium brise-soleil.

The curtain wall is divided into a 2m wide module, while the shopfront is a smaller 1,200mm module. The brise-soleil is modulated to match the shopfront with 200mm wide extrusions offering a 16-20% cover to the area of glazing. It is face fixed onto the protruding slab edges of the shopfront façades and span over the double level of the shopfront zones.

Both the flush-glazed, curtain wall façade and the shopfront façade incorporate spandrel panels, up to desk top height (750mm), below the vision sectors of the respective panels. These are single-

glazed and are insulated with mineral wool and nutec backing panels. Solar-E high performance glazing is utilised in the curtain wall system. The vision panels are double-glazed with clear solar coating and a frit pattern which reduces from 90% at the curtain wall head, down to 0% at eye level, on the outer panes. The inner panes are toughened to resist thermal stresses due to proximity of internal blinds and potential cold air from the perimeter cooling system.

The vision panels in the shopfront are grey, body tinted and double glazed, which matches the spandrel below. The top of shopfronts also incorporates a compensating channel which allows for expansion and contraction of the aluminium

as well as differential vertical deflection between floor slabs, due to the large cantilevers. This distinction in glass type and colour, albeit risky, proved successful in creating distinct volumetric components in the finished product.

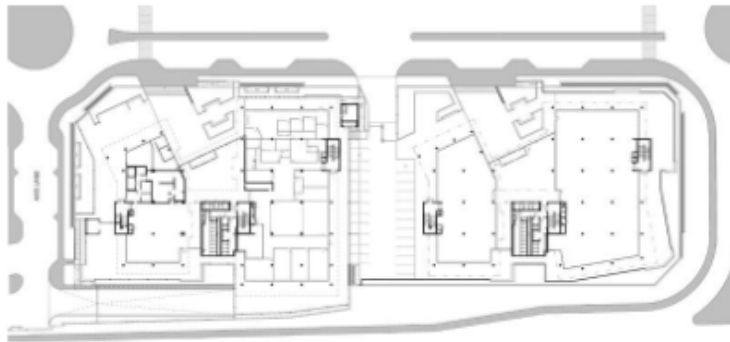
The ground floor of both office blocks is enclosed by full-height shopfronts. As a scaling device, a perimeter 'eyebrow' canopy wraps around the perimeter of the building at 2,800mm above the ground. It was formed in steel and clad in aluminium to match the brise-soleil. The 'eyebrow' is suspended from the underside of the first office level and extends around each block, terminating upwards over the entrances to form signage panels at the entrance of the building.



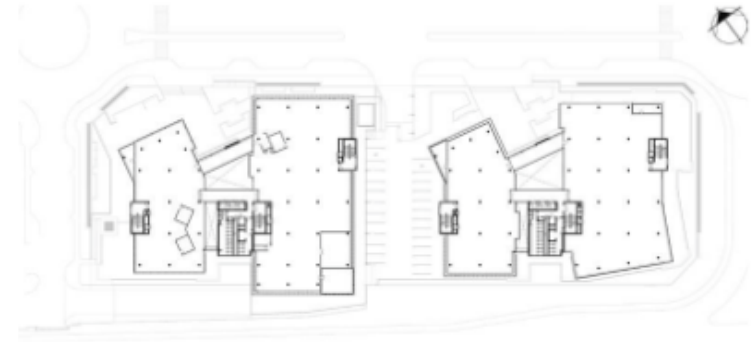
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GROUND FLOOR PLAN



FIRST FLOOR PLAN

transport strategies. This is further enhanced by the access to public transport and easily accessible local amenities.

Furthermore, the building also includes facilities designed for people who want to cycle to work. These are located on the upper basement parking level, below the North Tower. Here accommodations include lockable bicycle racks, as well as shower and locker facilities. In addition, visitor bicycle parking racks are located close to the entrance of both buildings. Visitor

bicycle parking is not only intended for couriers, but also for visitors to the offices who would prefer to commute by bicycle.

HVAC - Ventilation

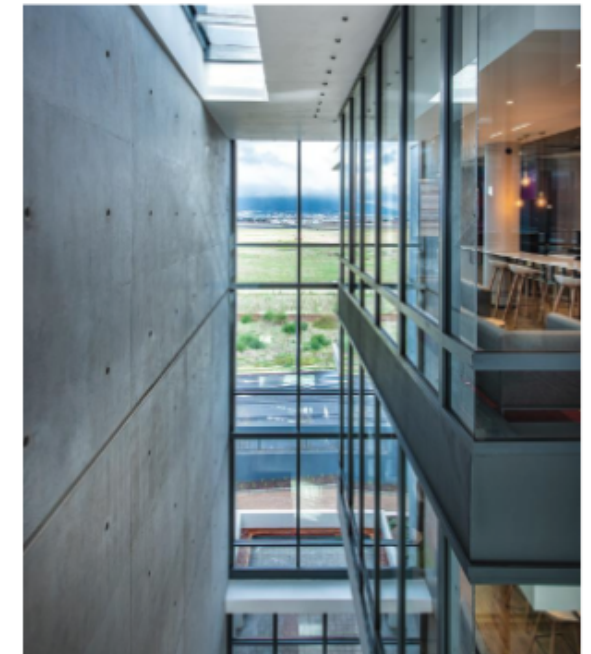
Air conditioning is provided via a central chilled water system, consisting of 2 chillers located on the Lower Parking Level, and 2 closed circuit cooling towers located on the roof of the North Building. The chilled water plant serves both the North and South towers by supplying chilled water

to the Fan Coil units located on each floor, as well as the outdoor air handling units and the Atrium air handling units. The cooling towers are supplied with grey water from Century City treated effluent.

The lower basement parking level is mechanical ventilated, with the extraction system doubling up in case of fire. The basement extraction system is installed with variable speed drives and CO sensors to optimise energy usage. The upper basement parking level is naturally ventilated. Outside air is supplied at 150% of the National

Building Regulations requirement, in order to meet the 5-star Green Star requirements. The air is pre-cooled to 22°C and supplied from air handling units located at roof level to individual fan coil units. The outdoor air handling units are CO2 controlled. The ablution facilities located in the 'concrete cube' are mechanical ventilated.

The North tower also utilises a dedicated BMS system which controls and monitors all mechanical installations, such as the HVAC system, the server room, the grey water system, as well as the lifts.



Sable Park: A Plascon 360° Partnership Project

Sable Park, one of the newest additions to the Rabie Property Group's stable of commercial developments, sets a new benchmark for contemporary and environmentally friendly buildings in the Bridgeways precinct of Century City, Cape Town.

Featuring numerous interior and exterior green aspects and a shifting orientation which maximises on views and natural light, the building's green status is reinforced by the utilisation of Plascon's premium quality low VOC (Volatile organic compound) paint products to ensure a healthy indoor environment.



Photo by David Southwood

The 5-Star Green Star Rated project was designed by architects, dhk, whose vision was to create an open and transparent work environment with strong inward and outward visual links. Consisting of two wings with a central

core and a full height atrium bringing light into the centre, the result is a flexible, energy efficient office space. "The design was inspired by the world of cinematography, with the framing and capturing of spaces clearly evident in the final product. The composition is designed as a series of complex 'moments' which together create a simple arrangement," said dhk associate director, Henry Abosi.

As a Plascon 360° Partnership Project, Plascon provided a holistic coatings solution to fully embrace the project's requirements. At the helm was Plascon Architectural Sales Consultant, Lynnith Davids and one of Plascon's preferred applicators, Whiteheads Headline Projects, to assist the architect in identifying the project's needs and successfully steer the product specification and application. Davids says, "We worked closely with dhk architects, together with the painting contractor to ensure we had the right specifications and product that would suit the harsh Century City climate and ensure the building's 5-Star Green Star Rating was maintained."

Century City is prone to high summer temperatures and low winter temperatures as well as heavy wind and rain. "There is a lot of contraction and expansion present in the buildings which need an effective, waterproof paint barrier to guard against wind-driven rain, wind borne salts and possible hairline cracks which are caused during construction when the plaster dries too soon," says Davids.

Plascon Professional Elastoshield was applied on the development's exterior

walls to help guard against these coastal elements. Davids adds, "We went with the Fibreguard technology of Plascon Professional Elastoshield because it's flexible, durable and a weatherproof water-based coating with micro-fibres to withstand repeated contraction and expansion over fine cracks. Other exterior surfaces were painted with Plascon's Professional Super Matt, a smooth finish, water-based, high cover and durable matt acrylic paint. This weatherproof paint was used under the eaves to withstand coastal weather conditions.

As a member of the Green Building Council of South Africa (GBCSA), Plascon has a wide range of Premium and Professional Products that are eco-kind with low VOC levels within the GBCSA standards for green building ratings. For Sable Park's interior walls, a Professional Superior Low Sheen product was used over Plascon's Professional Water-based Gypsum Sealer which created a continuous film to cover. "This durable and washable product with low VOC emissions is perfect for an office development ensuring a fresh, clean and hygienic working environment," says Davids.

Because the Sable Park coatings project was conducted as part of Plascon's 360° Partnership Pledge, a Plascon Product Guarantee was issued on completion. "As part of our Partnership Pledge and working closely with our preferred applicator, through regular site visits, we have been able to offer a coatings service that adds value to this property investment by extending its life expectancy and contributing to the bottom line. Through our low VOC emissions products, we were able to enhance its green aspects which also aligns with our green philosophy to be sustainable and environmentally conscious," concludes Davids.

ADVERTORIAL

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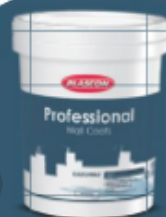
DESIGNED FOR Life

Century City's Sable Park – A proud Plascon Partnership.

Prone to extreme weather conditions, Century City typically experiences high summer temperatures and low winter temperatures, as well as heavy winds and rain, making Plascon's Professional Elastoshield the product of choice on the development's exterior walls to help guard against these coastal elements.

Plascon Professional Elastoshield is a high quality acrylic paint with Fibreguard technology which makes it an ideal flexible, durable and waterproof coating. It's interlocking, microfiber strength means it can withstand repeated expansion and contraction due to harsh climatic conditions. This makes it the most suitable solution for bridging hairline cracks on exterior walls.

Elastoshield is best suited for primed and unpainted concrete walls. Plus it's low-sheen, making it ideal for protecting walls from bad weather, algae and fungus. This quick drying, water-based paint falls within Plascon's Professional range, which is geared towards the specific needs of architects and contractors.



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