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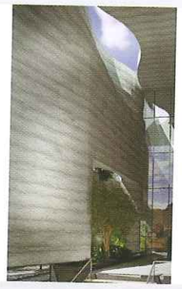

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PROPERTY DEVELOPERS
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ABSA CAPITAL

Sandton Court, Johannesburg

PHOTOGRAPHER: TRISTAN McLAREN

ABSA CAPITAL, SANDTON COURT
Sandton

Developer
Zenprop Property Holdings
Tiber Properties

Tenant
ABSA Capital

Project Managers
Turner & Townsend

Shell and Core Architects
Paragon Architects

Internal Fit Out and Services Co-ordination
Tectoniqua Architects

Quantity Surveyors
IBP Construction Consultants

Consulting Engineers:

Structural
SiVEST SA

Electrical
Taemane Consulting

Mechanical
RPP Consulting Engineers

Wet Services
Ramsden Consulting

Acoustic
Pro Acoustic Consortium

Kitchen Consultants
KDH Catering Design Concepts

Safety Consultants
ComPrac Holdings

Main Contractor
Tiber Bonvec Construction

Text
Henning Rasmuss, Paragon Architects

Photography
Courtesy of Paragon Architects
(Tristen McLaren & Wayne Haywood)

ABSA Capital

The architectural challenge of this project consisted of modifying an outdated office structure with a view to delivering a six storey building with 3,000m^2 rentable area per floor.

Zenprop and Tiber Properties approached Paragon Architects to design the shell and core for a new office development in Sandton, based on a speculative design investigation of additions to an existing structure. The architectural challenge consisted of modifying an outdated office structure with a view to delivering a 6 storey building with 3,000m^2 rentable area per floor. ABSA Capital (in affiliation with Barclays Capital) soon joined the development team as tenant, and the project became an exercise in best practice for global design. ABSA Capital was interested in optimising the headcount while creating the best possible working environment through the use of high tech flexible systems. Tectoniqua were appointed as the tenant's architect and their collaboration with Paragon Architects ensured a seamless connection between the structure of the building and the internal servicing and fit out.

The resulting building, with its consistent and homogeneous appearance, conceals the enormous complexity and technical ambition of the internal workings of the building. It is a working environment of seeming simplicity with a singular focus on efficient systems and user comfort.

Contract Period

For a building of this scope and complexity, the construction period from December 2006 to October 2008 was tight from the start. The synergy within the design team was strengthened by the appointment of Tiber Bonvec Construction as the main contractor for both developer and tenant. Their ability to interface a multitude of different trades running concurrently was critical to achieving the programme targets.

Shell and Core Design

Paragon Architects added two floors onto an existing four storey building. Two existing basement levels house the advanced services and technology backbone as well as parking, with four floors of offices above. Utilising the existing structure in this way meant that the new office floor plates could be designed to the tenant's specifications, which surpass current development standards in the South African market.

The existing square building had a central atrium with 4 inbound services and stair cores. These cores were removed and the existing atrium filled in to optimise parking and plant space. The new cores have been rationalised into two chunky towers attached to either side of the main building volume, maximising the rentable floor area. New floor plates are laid out around a 3 storey atrium which brings diffused light into the heart of the building.

The architectural project is conceived as a clean strong 'shell' protecting the 'softer' systems inside. The exterior form is a white glazed box floating above a dark base, flanked by the dark tiled core towers on the east and west. The base of the building is treated monolithically, with alternating horizontal and vertical window boxes punctuating the facades. The floating effect of the curtain wall above is achieved by extending the new slabs past the line of the existing footprint. The sheer white surface of the curtain wall wraps over the top of the building, protecting the deeply recessed north and south facades.

The tenant demanded double glazing with Low E coated glass; the design team further introduced ceramic frit glass to minimise glare and heat gain on the east and west facades. On the northern face, large sculptural louvers shade the glass, while the south entrance is framed by large sheets of clear glazing for maximum light penetration into the atrium. Automated blinds manage low winter sun angles on all sides.

PHOTOGRAPHER: TRISTAN McLAREN

ABSA CAPITAL

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ABSA CAPITAL

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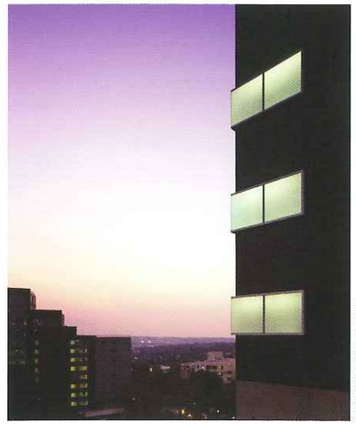


PHOTOGRAPHER: TRISTAN McLAREN

The central atrium acts as a focal point for the surrounding cellular spaces, canteen and reception area. Four towers inhabit the atrium, and contain the vertical circulation and breakout spaces. Bridges link the eastern and western sides to each other, as well as to the trading floor on the highest level. In this way the vertical space is constantly activated by people moving through it. The breakout spaces double up as informal meeting areas, and the adjacent meeting rooms concentrate visible activity around the vertical circulation towers.

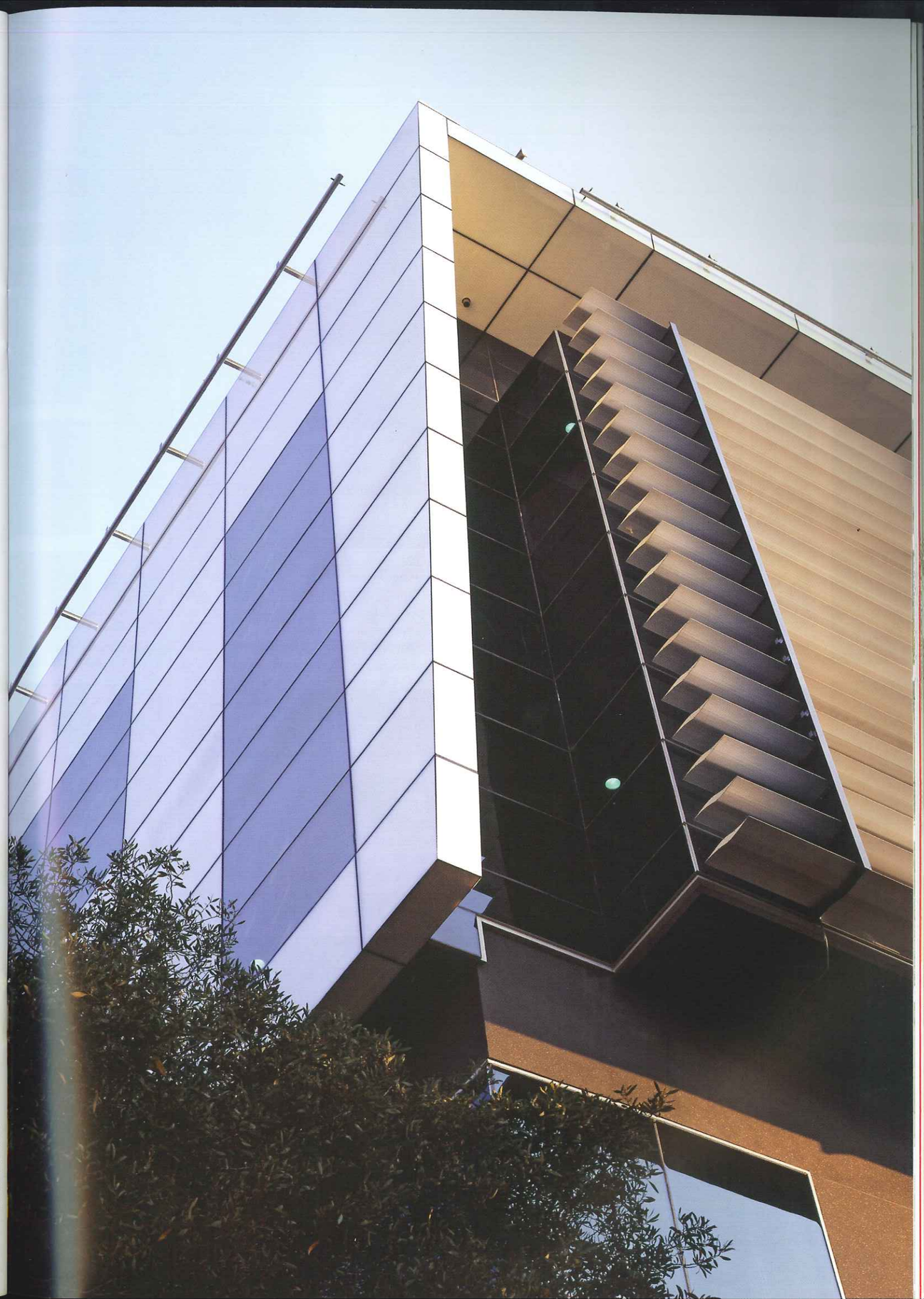
Diffused light infiltrates the atrium through the wave-form clerestorey windows of the south facing roof light. Here, different thicknesses of double glazing act acoustically to reduce noise from the chiller plant on the roof. The atrium space is defined by subtle formal contrasts, but focuses on the monumental steel sculpture commissioned from local artist Marco Cianfanelli.

Environmental

The tenant drove the environmental performance as a key deliverable. Energy demand is reduced by improved insulation to the roof and by installation of double glazed façades with solar shading and Low E coated glass. The shell design and the internal layout work together to maximise daylight penetration. Energy efficient lights with presence sensors are judiciously positioned.

The HVAC control system monitors and moderates air supply and temperature in individual zones. An 'Outside Air Economy Cycle' reduces chiller cooling when outside air temperatures allow it. Heat is reclaimed from the ventilation system and used to preheat geyser water, supplemented by solar panels. Sensor tap fittings and dual flush cisterns decrease water consumption and careful planting ensures wise use of water for landscaping. Absa Capital has introduced recycling

PHOTOGRAPHER: WAYNE HAYWOOD



PHOTOGRAPHER: TRISTAN McLAREN

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PHOTOGRAPHER: WAYNE HAYWOOD

Bridges link the eastern and western sides to each other, as well as to the trading floor on the highest level

management within the building, with separate waste collection contracts.

Services Resilience

The mechanical, electrical, data and fire services are designed, in the first instance, to minimise risk to the business in the event of a system failure. Future growth needs and maximum user comfort are equal parts of the services design philosophy. Each system is designed with a tandem system available in the event of a failure. The cores that house these services are designed in such a way that if one side goes down, the other will pick up the load. The single main electrical entry into the building is supported by a double system of standby generators and UPS units.

The Mechanical installation is divided into 2 sections: 'comfort cooling' and '24 hour essential cooling'. Each floor is divided into a perimeter zone and an internal zone. The perimeter zone copes with heat gain from the glazed façade and uses perimeter heater banks for winter exposure to the façade. Each zone uses 'variable air volume' units with sensors for localised air temperature control. A record 16 litres per second of outside fresh air is introduced.

Tectoniqua has co-ordinated the complex interface of services within the confines of the structure with access floor voids of up to 750mm and with ceiling voids ranging from 400mm to 2,500mm. The complexity of the services hidden in these voids is disguised by the clean and modular internal systems, providing an illusion of simplicity.

Local Construction With Global Partners

Some imported products were used to comply with Barclays Capital's global design standards, but the focus was on local suppliers and contractors. In collaboration with international experts, the product base of these local suppliers has been expanded and their skill base elevated to an international level. Interventions into the local industry have included demountable partitioning systems from Italy, individually cooled trading desks from Switzerland, open plan and office desk solutions from the UK and USA and the 'gull wing' ceiling designed in collaboration with a design team in Germany. In this way, global best practice has been made achievable in the local market, which will be to the benefit of other clients and projects.

Internal Masterplanning

Glazed cellular offices are arranged around the central atrium, freeing up the external façade. Technical support rooms occupy the dark spaces adjacent to the cores. The open plan desk layout and glazed demountable partitioning allows natural light to permeate the floor, and provides expansive views out over Sandton and the forests of Johannesburg. The transparency in layout promotes communication between business units, and optimises occupancy density.

A rigorously designed modular grid ties the interior systems to the exterior glazed façade, adding to flexibility of layout. Each floor plate effortlessly accommodates churn to support change or relocation of any

The open plan desk layout and glazed demountable partitioning allows natural light to permeate the floor

PHOTOGRAPHER: TRISTAN McLAREN

department in response to the changing requirements of the different business units in relation to the hierarchical blocking and stacking.

Branding and 'Look and Feel'

Tectoniqua worked closely with the tenant to identify the core essence of the branding and its representation in the 'look and feel' of the interiors. The brief called for a design that addresses front and back office with specific emphasis on the trading floor and the client meeting suite area. The overall warm monotone palette is accentuated by splashes of colour, with the emphasis on strategically placed graphic wallpaper custom designed by Jupiter Drawing Room.

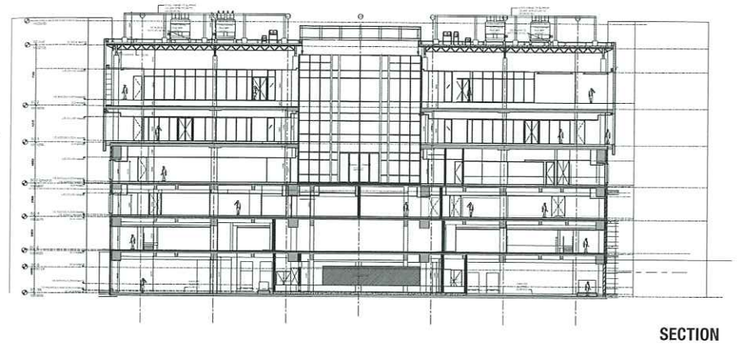
Cellular spaces are constructed of full height glazed demountable partitions with solid cross walls in a combination of melamine, fabric and writeable glass panels. The colour palette is characterised by warm greys and bone whites with subtle accents of tungsten blue and red providing a contemporary and classic look and feel. This palette is reinforced in the colours chosen for carpets, perforated metal pan ceilings, painted vinyl wallpaper and translucent motorised blinds. The standard workstations are a combination of reflective metal performance walls, crisp white worktops and metallic storage units with warm walnut laminate tops.

The visitor is greeted by the warmth of the main reception, which contrasts with the colder finishes of the atrium space. The sleek illuminated reception desk is offset by the backing walls clad in warm walnut and stone. The client meeting suite leads off the main reception. Private rooms are characterised by full enclosures of walnut and acoustic fabric paneling, while more public rooms have large expanses of double glazed windows. These rooms offer full video conferencing and dining facilities. Visitors are accommodated in plush internal waiting areas or in a private courtyard while waiting for a meeting. Displayed on the walls is a range of specialised artwork selected from a wide spectrum of local artists. The artworks add colour accents and emphasise the importance of the area.

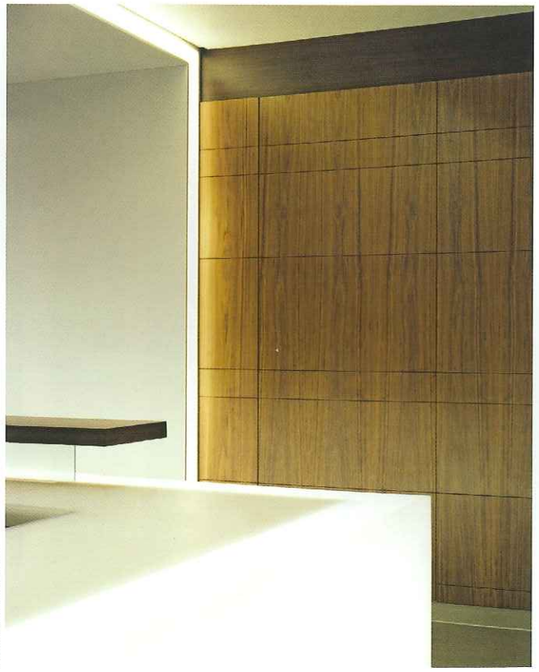
The trading floor is designed to accommodate a high density with a floor to ceiling height of 3,600mm. The desks run parallel to the north façade while the custom designed 'gull wing' ceiling runs perpendicular to this grid. The shape and orientation of the ceiling relative to the desks provides optimum overhead lighting and air distribution, and emphasizes the trading floor as the focal point of the bank.

Way Forward

In terms of the ambition of the brief, the thoroughness of the investigations and the global best practice knowledge invested in this project, this has been a unique development opportunity for skills for the entire professional team. The quality of decision-making sets this project apart from the market norm in South Africa, and puts it on par with any ambitious projects delivered anywhere in the global property market. The quality of the built product is testimony to what is achievable in a coherently assembled and professionally managed team. The lessons learnt from this project are now becoming the core of the new brief to the tenant's design team for similar projects.



SECTION



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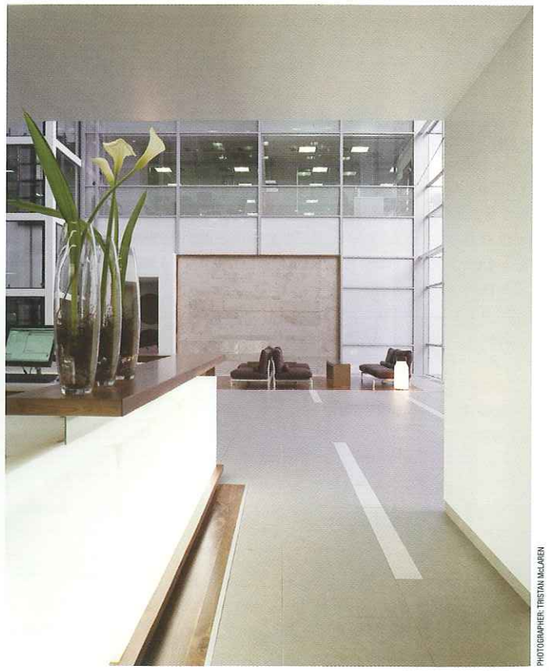

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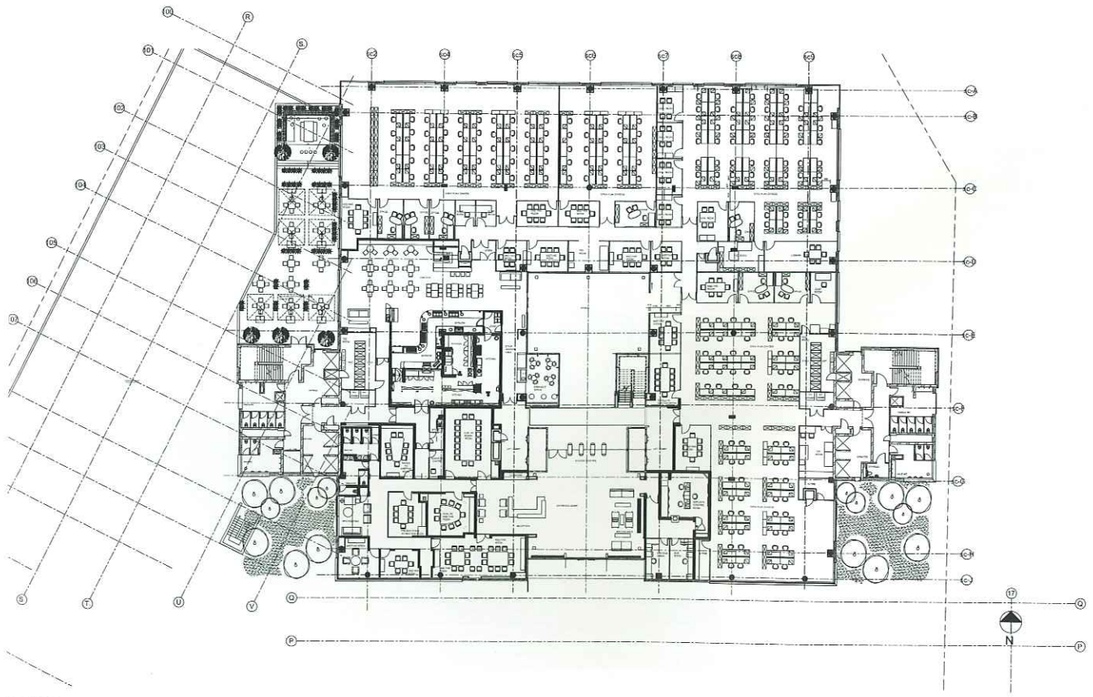

GROUND FLOOR PLAN

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Specialist Kitchen Consultants

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Project Managers and Quantity Surveyors and Engineering Cost Consultants

Paragon Architects
Architects

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