



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



A School of Hospitality Management for the University of Pretoria

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The Settler

(South African War ended, May 1902)

Here, where my fresh-turned furrows run,
And the deep soil glistens red,
I will repair the wrong that was done
To the living and the dead.
Here, where the senseless bullet fell,
And the barren shrapnel burst,
I will plant a tree, I will dig a well,
Against the heat and thirst.

Here, in a large and sunlit land,
Where no wrong bites to the bone,
I will lay my hand in my neighbour's hand,
And together we will atone
For the set folly and the red breach
And the black waste of it all:
Giving and taking counsel each
Over the cattle-kraal.

Here will we join against our foes-
The hailstroke and the storm,
And the red and rustling cloud that blows
The locust's mile deep swarm.
Frost and murrain and flood let loose
Shall launch us side by side
In the holy wars that have no truce
'twixt seed and harvest-tide.

Earth, where we rode to slay or be slain,
Our love shall redeem unto life.
We will gather and leap to her lips again
The waters of ancient strife,
From the far and fiercely guarded streams
And the pools where we lay in wait,
Till the corn cover our evil dreams
And the young corn our hate.

And when we bring old fights to mind,
We will not remember the sin-
If there be blood on his head of my kind,
Or blood on my head of his kin-

For the ungrazed upland, the untilled lea,
Cry, and the fields forlorn:
"the dead must bury their dead, but ye-
Ye serve an host unborn."

Bless then, our God, the new yoked plough
And the good beasts that draw,
And the bread we eat in the sweat of our brow
According to Thy Law.
After us cometh a multitude-
Prosper the work of our hand,
That we may feed with our land's food
The folk of all our lands!

Here, in the waves and troughs of the plains,
Where the healing stillness lies,
And the vast, benignant sky restrains
And the long days make wise-
Bless to our use the rain and the sun
And the blind seed in its bed,
That we may repair the wrong that was done
To the living and the dead!

Rudyard Kipling 1903



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Hundred Year Celebration



“...maybe the day will come when the Transvaal University College will be for our country what Oxford is for England, maybe we shall have to watch the grass grow on the field for another hundred years before we see this happen, but a good start has been made.”

General Jan Smuts on the occasion of the laying of the foundation stone of the Old Arts Building



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Abstract

The dissertation considers architecture of the built environment and its effects on the existing social fabric within the larger urban context.

This thesis argues that South African Universities stand at a critical and defining moment in time, that through careful assessment and implementation of tertiary education structure design and planning, we may challenge the previously accepted spatial, socio economic and political extents of life since it is the change that occurs within the built environment which most profoundly affects our daily lives.

The platform used to explore this premise is a Hotel School, situated on the eastern boundary of the University of Pretoria's Hatfield Campus. The fundamental relationship between the chosen site and the immediate surrounding will be defined, resulting in a formal translation in terms of an architectural intervention. As a means to recognise this challenge the intention will be to expand upon the architectural identity of the Campus and contribute toward the production of a South African sensibility through the language and interaction offered by architecture to the public.

The issues underpinning the argument deal with the lack of interaction between the University and its neighbours. The objective of this discourse will be the ratification of the ideal that positively performing urban environments reflect the high degree of integration between various parts and elements of the city.

“The essence of urbanity is that, with increasing agglomeration, individuals, groups and communities can benefit from a greater range of opportunities and facilities than can be generated by their operating in isolation.”
(Dewar 1991:20)

The final design proposes an interaction between the University as private entity and the public realm through the use of an experiential hospitality training facility. The design creates a place of relief which is reliant upon the event of programme acting as generator, effectively bridging the divide and ultimately unifying a portion of the Campus with its surroundings.



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Chapter 1_Introduction

1.1 Introduction

At this point in time the uncertainty which is characteristic of the 21st century has seen a possible paradigm shift which spans the entire continuum of human endeavour. This is most perceptibly recognised through our challenges and responses through architecture and planning to the social, economic and political environment. Technological advancement, urbanization, intercontinental influences in the form of globalization as well as natural ambitions has led us as society to commit higher education as necessity.

Our democracy affects architecture and planning and it is in this regard that numerous possibilities arise, however it also creates conditions of competition between opposing forces, which provokes great complexity within our social matrix, it is this complexity and the arising contradictions that provides for the exercise of imagination, inevitably affording a wealth of potential for innovative design responses and architectural transformation.

The dual effect of democracy and economic growth has placed considerable strain on the higher education institutions. These conditions however, are both fortuitous and perilous for the disciplines of the built environment. Universities are an essential component in society since we have committed ourselves to utilising the institutions for training our professionals and conducting research.

The spatial planning and its physical forms which accommodate the process of education are self evidently important. The scope and nature of the challenges we face when designing these facilities are often times complex and not common knowledge.

In terms of Campus planning it is rather important to embrace the provision of pioneering and empowering heritage which in turn challenges the institution to reflect upon its past, improve the present and build onto the future by responding to our nations rich historical, cultural and spiritual background.

Perhaps in order to achieve this, focus should be on considering new means and programmes that support such change consequentially confronting the radical divide that our country is facing. Where space itself is not only the primary arena for innovation, but also a transformative arena where the collective voice of community may be heard.

The current challenge is the implementation and physical manifestation of these conditions through reintegrating the University of Pretoria into the urban fabric of the city. The final proposal will create new economic and educational opportunities for student, staff, hotelier and general public. The design intent will be to unify a portion of the University and Hatfield by stimulating public participation through interaction.

This dissertation aims to understand the tripartite relationship between the University, the programme and its surrounding within the context of Pretoria. The realisation of which would further reinforce the institutions commitment to community participation and responsiveness within the policy strategies agreed upon between the University, Hatfield business community and the City of Tshwane Metropolitan Municipality.

The premise is that through the Hotel School, progress can be made in showcasing talent that the University fosters, exposing South African pride and promoting the Universities brand as the premier UP destination.

Emphasis will be placed on the role that the School and the management thereof will have a significant impact as buffer, bridging the boundaries between communal space and the private realm, effectively benefiting the involved communities by unifying the fragmented space and offering choice.

There is a pragmatic truism that society prescribes what architecture may express. "Whenever ideological convictions were strongly entrenched in the educational curriculum, architectural continuity was consistently related to the institutions past preferences for architectural style or campus form. However when the institution continued to hold onto the task of being the leading edge of thought, their buildings and campuses were as advanced or as retrogressive as their time." (Dober 1963)

A requirement for an adequate campus design is a general design form and structure which can adapt itself to future change, and at the same time maintain its integrity as a design. Here we see the relationship between planning, architecture and education in a youthful vitality that embraces the elderly wisdom, it should act as a progression and transmutation, with the physical form containing educational concepts that are representative of our people. The physical plans must be both general and specific. Spatial configurations must be concerned with immediate requirements as well as long range considerations. The totality of which must cover the campus and its surroundings, where the implementation of today's educational goals are simultaneously applied with the encouragement of new spatial objectives.

The Hatfield region is experiencing rapid expansion, with business and residential developments, together with their respective infrastructure requirements exerting tremendous pressures on the urban environment. The area surrounding the University of Pretoria is dominated by the vehicle, which results in an unfriendly pedestrian or individual experience. The public space is therefore a critical part of the design proposal as it offers untapped potential with regards to the upliftment and life choices offered to the public by proper planning and execution of the urban environment.



Fig 1.1: The approach to the project site becomes progressively more dominated by the vehicle



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Chapter 2_Brief

2.1 Problem statement

Although the University is an autonomous institution, it does not attempt to relate to or encourage public interaction. This reactive response to the urban environment is uncharacteristically disparate to our countries democratic ideology. It is the opinion of the author that as a leading edge of thought, the institution has a societal obligation to challenge and apply those methods of design solutions which they themselves teach.

It is the intention that through the Hotel School model a critical new spatial configuration would be both reflective of our democratic principles and contest the previous translations of power in space, effectively addressing social and political objectives for a society who are constantly challenging old ideas and translate these ideas into a meaningful, proactive form of identity which would effectively transcend the practicality of function.

“Social inclusion gets at the heart of what it means to be human, to experience belonging, acceptance, and recognition. Social exclusion, at the other extreme, is what is done to those who are vulnerable, considered ‘disposable’ or inferior, or, even less than human. Social inclusion and exclusion, as both processes and outcomes are at opposite ends of the continuum, but exclusion and inclusion are also metaphors: social inclusion for how we are alike as human beings, for what binds us together as persons; social exclusion for what divides us and the distances that separate us, whether they are economic, social or physical. Social inclusion is not just about the periphery versus the centre; it is about participating as a valued member of society. Inclusion makes the link between the well being of children, our common humanity, and the social, economic, political and cultural conditions that must exist in a just and compassionate society”. (Freiler 2001)

In order to completely understand the challenge concerning the current situation, the dilemma may be further explored by analysing the following sub problems:

- The analysis and investigation of tourism within the South African context and the potential of the Hotel School to act as unifying element in the community.
- The analysis of similar education institutions and their relevant programme.
- The study of successful public space, taking into consideration the public and private characteristics of such places.

2.2 Sub Problems

Isolated entity

The safety and security of the University and its users are a primary concern; however the spatial strategies employed to provide it are similar to that of office parks, gated communities and residential developments in that they ironically oppose the opportunity of maturing our post apartheid cities. The impermeable morphology of the University extends the problem of vulnerability to the urban scale, and thus begins to characterise a portion of the city.

The University Main Campus is spread over 24 hectares, this is a substantial portion of land which is isolated from the surrounding suburbs. The dull grey palisade barrier physically separates the University from the neighbourhood which contributes to the pattern of social exclusion and spatial fragmentation. These conditions result in a lack of opportunities for social contact and interaction at the broader city scale, due to different groups operating in separation whilst equity is reduced through particular groups

enjoying the benefits of well developed space and others being excluded.

Crime is a very real threat. The proposal will not presume to solve the complex problem of crime, but will attempt to provide a spatial framework which would be better suited to manage it. An attempt will be made in response to boundary, to blur the reactive rigidity of the institutional carriage. Particular attention will be placed on the notion of surveillance as chief means of security, to improve the sociability of the community.

Parking

There is a serious lack of parking at Main Campus. Although the University is in the process of implementing facilities capable of reducing pressure related to vehicle parking, it cannot provide for necessary area to facilitate an estimated 8000 standing vehicles on a daily basis. Parking is an essential component of the development, since it will cater for the staff of the University and visitors alike.

Disabled Access

The University has not put into place any regulations concerning accessibility by disabled users. The majority of faculty buildings do not incorporate the concept of inclusive design principles. The physically challenged are therefore excluded from taking part in the programmes offered by the institution.

The built environment is not neutral or value free, it is an active shaper of human identity and daily life. Buildings have the ability to either enhance people’s ability to function or diminish the capacity to function completely. It is therefore critical to plan for enabling environments which add to our sense of competence, comfort and belonging.

2.3 Methodology

The approach aims at including the Campus as site into the city context by analysing published statistics as well as the various urban frameworks and policies available. The site specific design challenges are investigated and compared with both local and international design solutions and programmatic responses.

City wide context

The method of integrating and incorporating the eastern edge of the University into the city context will be investigated through the analysis of the city context.

Campus Context:

A framework will be designed through analysis of the University's contextual setting as well as the investigation of statistics concerning tourism capacity at the local and provincial tiers.

Site Context:

In order to produce and situate an appropriate architectural intervention the campus framework will be investigated. The analysis will inform the design response, which would generate an inclusive built environment with the intention of acting as link between public and private realm.

2.4 Design objectives

The primary aim of the proposal is to generate a platform which would be conducive to social interaction and freedom within the context of the hospitality and education institutions and the immediate surrounding.

The core of the strategy is to allow the University to act as catalyst which would provide for an environment that is contributory to the furtherance of the Universities core ideals of academic excellence and transformative assimilation that allow for the various levels of interaction at both the micro and macro scales. The extent of these interactive levels naturally depends on the programme as well as the context of location; however the quintessential component is that the community involved should be empowered through choice.

2.5 The Client

As will be mentioned in the forthcoming sections there is a dire need for skilled human resources within the tourism and hospitality sector. The Government has identified the potential of tourism and hospitality, resulting in the implementation of strategies such as the Gauteng Tourism Development Strategy as coping mechanism since South Africa is fast becoming a premier destination for both local and international visitors.

Funding for the project will be a public-private initiative, with capital being obtained from the Gauteng Tourism Authority, the Department of Education, the Gauteng Provincial Government and the University of Pretoria. Additional funding will be obtained through partnerships with primary tourism enterprise such as Hyatt or Southern Sun Hotel groups, as well as secondary tourism enterprise sponsors such as Nestlé or Rich's.

The University of Pretoria will be the primary stakeholder and thus the development will be managed by the Faculty of Economic and Management Sciences.

2.6 Literature Review

The literature review explored the relationship between campus planning and faculty programming on the local and international arena. The investigation revealed that in relation to local strategies the international hospitality education programmes focused on effective local management of facilities and flexible, adaptable buildings. This effectively aids in accommodating fluctuating learner numbers, changes in curricula as well as teaching and learning methodologies.

Locally however it is evident that South African policies on education focus on human rights, transformation, and equitable access to quality education for all as well as addressing infrastructure backlogs.

Very few hospitality education programmes look at the users, building programme, their interrelatedness and impact on quality education. Changes occurring in the international arena are rapid and in line with technological advancement, thus greater emphasis is being placed on life-long learning and continuous skills development. In order to remain competitive in the workplace adults are required to continuously develop their skills, with tertiary education centres playing a vital role in ensuring skills development does occur.

South Africa as a developing country is fortunate in the sense that we are in a position to learn from the experience of other countries. It is therefore not tied to a linear progression of development and is free to progress to an advanced point without the unnecessary delay thus bridging the gap between past systems and future aspirations.

2.7 Theoretical Framework

From the literature review school infrastructure objectives and indicators were developed in order to guide the investigation.

The hypothetical objectives created aided in establishing which of the performance areas were vital in support of the various design components. In order to accommodate the requirements of the building, the following three focus areas were defined:

- **People:**
Programme infrastructure should ensure optimum user comfort and health whilst enabling a productive environment.
- **Infrastructure:**
Programme infrastructure should support the inherent activities, by ensuring building structural stability, low operating costs and spatial and resource efficient planning.
- **Programme:**
Infrastructure should effectively support activities as well as accommodate various services. Curriculum activities and hotel facilities must be accommodated effectively.

The building user is the primary concern, with the programme and infrastructure requirements supporting the user needs. The nature of the proposal requires a flexible design response in terms of physical plant as well as the management of the curricula. An adaptive design approach will ensure a sustainable outcome, which is to the benefit of both public and private user alike.



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Chapter 3_Theoretical Context

3.1 Introduction

Formal education plays a crucial role in the provision of skilled and competent human resources. South Africa has developed tertiary hospitality education systems which aim at satisfying the needs of the tourism and hospitality industry, however in order for the industry to prosper it is necessary to provide for hospitality education leaders within the sector. Throughout this dissertation, the concept of as well as the need of hospitality management education will be explored, as well as the proposed schools struggle for identity.

The responsibility for developing service-oriented human resources lies not only with the hospitality organisations but also within the system of hospitality management education. In order to satisfy customers through the delivery of quality services by skilled and competent staff, an effective hospitality education system must exist.

Such a programme will provide organisations with employees who have the potential to become quality leaders. In order to examine the nature of hospitality management education, a distinction between education and training must be made. According to John Dewey (1916) an American philosopher, education is defined as *“that reconstruction or reorganisation of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience.”*

A common distinction between education and training is that education is mainly provided by institutions such as universities while training is usually provided by employers. This distinction which is the basis of the traditional view towards education and training, suggests that education is for professional and training is for the artisan or the unskilled. However, with today’s global tourist and the forthcoming demand it is widely recognised that education cannot be considered as a finite and terminal activity, while training cannot be considered as the strictly hands on approach. In today’s environment, a combination of new information technology and economic globalisation has resulted in changing the traditional view towards education and training.

The tourism market is demanding continually higher levels of performance in the face of growing economic trends and globalisation. It is therefore essential that the hospitality education programme aims at blending theory with practical experience through experiential learning and training, since they are not two independent processes, but build upon one another.



Fig. 3.1: Culinary art and customer service products

3.2 The need for hospitality management education

Hospitality management education is the teaching of hotel management and catering operations and organisations. Hospitality management education can be seen as a mixture of academic, professional and craft knowledge. Education is about change and choice, by increasing one's knowledge, understanding and skills, the ability to influence the surrounding environment is obtained, therefore allowing the individual to become a controller of change, rather than a victim of it.

Empowerment through education results in a committed student who brings with him decision-making skills which inevitably contributes toward the economy. Similarly, the greater and varied the skill of the individual, the better the person is in terms of personal skills, individuality and use for the organisation. These factors allow greater flexibility for the individual to choose his own destiny, thereby influencing the impact on his surrounding environment and advance the interests of the concerned parties.

The South African Government as well as the Tourism Industry have invested significant resources into the sector, as a result the maintenance and advancement of the hospitality industry's competitiveness in both the national and international arenas has become priority. The increasing affluence of international tourists has placed a greater demand on the African tourism industry, both in volume and standards. The impact of which has led to a need for greater professionalism within the South African hospitality sector.

This industry accommodates approximately 380 000 employees and 42 000 employers. It is organised into five sectors namely travel and tourism; conservation and tourist guiding; gaming and lotteries; sport, recreation and fitness, and hospitality.

Hospitality, the largest sub-sector in the tourism industry with 77% of employees, includes the management of events and accommodation, for example hotels and guest houses, the management of food and beverage outlets which varies from restaurants to mass catering companies, and professional cookery which focuses on specialisation in culinary art.

3.3 Education in South Africa

South Africa's investment in education has tripled since the end of apartheid. In 1994, the government spent R31.8-billion on education; in 2006, the budget allocation was R92.1-billion. At 6.6% of the country's GDP and 17.7% of total government spending, the country's education spending rate is among the highest in the world. South Africa plans to increase the number of tertiary institutions in the country in a bid to ensure that 20% of people aged between 18 and 25 are enrolled in the higher education system by 2015. (White paper on Education)

Speaking at a higher education working group meeting in Pretoria, Education Minister Naledi Pandor said the system would have to take on more than 100 000 extra students between 2010 and 2015 if the government was to reach its target. She also highlighted the need to address the capacity constraints in the higher education system, as the current establishment cannot handle a planned increase in the number of students. "It is clear that the current number of institutions would not be able to absorb 100 000 pupils into the system to counter skills shortages, which means we would have to address the re-sourcing of the system we have and the number of institutions," Pandor said. She pointed out that there are presently 740 000 students enrolled at tertiary institutions in the country, with 820 000 expected by 2010. (appendix 4, fig 5)

3.4 The role of the Teaching Hotel

The focus shifts from an academic school to that of a teaching hotel and the administration thereof, provided that proper management of the process of education, accommodation and the social interaction connected to the intervention exist. It is the opinion of the author that the presence of the School in the Hatfield area has the potential of providing the community new opportunities and choices relating to the programme of learning accommodation and the inherent infrastructure thereof.

This argument is further reinforced by Government, their approach being "Tourism development is an intersectoral function which requires integrating various issues, activities and actors. The goals and objectives of putting the tourism policy in place must complement other policies and laws across a host of sectors, including environmental management, education, labour, safety and security, economic development, agriculture, transport and arts and culture." (White Paper on Sustainable Tourism Development and Promotion in South Africa, 2001).

The relevance of education and the promotion of tourism within the country have been identified, the problem now arises as to how these conditions may be applied and translated into the built form. An opportunity arises with the proposed programme which allows for the successful administration and facilitation of the Hotel School and its related events. The provision of such infrastructure enables the University to focus on generating opportunity and thus increasing participation through involvement.

By supporting vision it provides a long term aim for project participants which embody a strategy for the future. By creating events which encourage community exposure and inform the programme identity the School surpasses the role of education only, it establishes local character which in turn promotes individual and communal upliftment.

Although the programme informs the design response, the architectural point of departure will not only focus on the concept of the "teaching hotel." Rather emphasis will be placed on creating spaces that are mutually inclusive, which encourage opportunities for social exchange and interaction by allowing chance encounters through event driven spatial planning. It is the author's intention to highlight the University's commitment to product excellence as well as strengthening the identity of the Hatfield area.

3.5 Architecture of the event

Pretoria, like any other city in our country is dynamic and contradictory. The cultural, social and political landscape makes for a capital that is constantly changing. In many cases, these changes are initiated politically, expressed physically and experienced socially. Urban transformation is a critical part of any well-functioning city. The ability to modify and improve existing infrastructure, opportunities and facilities is essential to stay competitive in a global world, and locally it is of the utmost importance that the urban environment is able to adapt to the changing needs of the residents of the city.

Norberg-Schultz explores the relationship between space and place, the principle elements to giving people meaning to city making. Norberg-Schultz states that "place is the concrete manifestation of man's dwelling and his identity depends on his belonging to places" (1980). He suggests that the concept of place is a result of the relationship between life and place, that the concept of place cannot be viewed in isolation from the idea of meaning and of city-making which is meaningful to the dweller.

Discussing the process of place making within the city Norberg-Schultz (1980) talks of the importance for space to be bound and directed in harmony with the surrounding structure, whether man made or natural would result in a spatial organisation or structure that is generative and thus ideal for living a meaningful life. It therefore suggests that form is expressed through order which in turn is demonstrated through and gives quality to the built environment.

Space, order and form are the elementary constituents of the physical environment, the concrete of our cities. This raises the question as to how the physical space and the social spaces within the city relate toward each other, and furthermore how it is perceived by the user? According to Dewaar and Uytenbogaardt (1991) there are four sets of needs that inform the spatial transformation of place making, namely urban generation, access, social contact and interaction, and individual needs. When these social needs are represented through the spatial form the outcome is a balanced urban settlement, that welcomes the unexpected and accepts conflict by allowing a greater range of variation.



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Chapter 4_Context Analysis

4.1 Introduction

Pretoria is located in the northern part of Gauteng Province, South Africa. It is one of the country's three capital cities, serving as the executive (administrative) and official capital. Pretoria is situated in the transitional area between the Highveld and the Bushveld, approximately 50 km north of Johannesburg in the north-east of South Africa. It lies in a warm, well sheltered, fertile valley, surrounded by the hills of the Magaliesberg range with the Apies and Steenbok rivers running through the city.

The Hatfield region is situated on a portion of the farm Koedoespoort 229, which was originally owned by Lourens Cornelius Bronkhorst in 1859. Bronkhorst sold the land to the Wesleyan Methodist Society in 1885, and it served as hospital camp during the Second War of Independence. In 1903 the church sold the land to Patrick Duncan, the Colonial Secretariat of the Transvaal. It was during this period that the area grew considerably larger, and in 1905 it was officially named Hatfield, with it only being incorporated into the town of Pretoria in 1916. (Afrikana Collection)

4.1.1 Study Area

The site is positioned on the eastern periphery of the Central Business District of Pretoria City. The proposal is in the proximity of the Mabopane Centurion, as well as the Trans Africa Development Corridors (N14/N4). The development is in close proximity to several major access ways through the vicinity. Rail and road based public transport services are established within the locality, with the upgrading of the Hatfield Railway station to accommodate the Gautrain. The site is therefore suitably located and ideally accessible to the general public. The potential benefits of the site are numerous as a result of the highly accessible nature of the area.

4.1.2 Project Area

The project area is in Hatfield, located to the east of Pretoria's central business district and surrounded by residential suburbs to the north and east. The project area is not a specific site, but rather the eastern portion of the University of Pretoria's Main Campus. The project site is surrounded by streets on three sides, with Duxbury Street to the North, Herold Street to the east, both of which are public and the University's internal Ring Road to the west.



Fig. 4.1: Gauteng Regional Plan



Fig. 4.2: Location of site within the city context



Fig. 4.3 : Historic map of Pretoria



Fig. 4.4: Painting by Thomas Baines of Pretoria 1872



Fig. 4.5: Church Square early 1900's

4.2 Historic Context

4.2.1 City of Pretoria: Pretoria's original town planning framework

The urban grid was ordered around the Kerkplein (Church Square) and related both to the cosmic order of the sun's path as well as the east - west axis of the Daspoort and Schurweberg mountain range. The four streets radiating from Church Square, the city centre represent the four cardinal directions of the universe, with the central portion of the town being divided by the waters.

Sytze Wopkes Wierda was appointed in 1887 as chief engineer and architect for the then newly created Departement Publieke Werken. Within a short span of 12 years the nachmaaldorp was transformed into the capital of the Republic. Wierda interpreted President Paul Kruger's intentions by translating these into the built form. Kruger stressed "eendracht maakt macht" (unity is strength), that concerning the city planning the rule of law was that an orderly, regulated urban design was required, one where the whole is more than the sum of its parts.

It seems that the town planning scheme led by Wierda was influenced by the frameworks of either Paris or Berlin with local adaptations to context. It is generally accepted that the layout of Graeff Reinets served as a model for the plan of Pretoria. The early Afrikaner dorp layout stressed certain elementary unifying guidelines. As such social and religious values were visible in plan and silhouette as well as that urban unity would be achieved by individual buildings being subordinate to the overall urban design, which again was subordinate to an interpretation of the landscape. (Fisher, R.C.1998).



4.2.2 Foundation of the University of Pretoria: 1889-1929

In the years preceding the South African War (1899-1902) the Volksraad of the ZAR discussed the possibility of establishing a university in the Republic, however any plans put forward were thwarted by the outbreak of the Anglo-Boer War. In 1902 a teachers college in Pretoria was established.

It was in 1906 that the College adopted a new name, that of the Transvaal University College, however it was only on the 10th February 1908 that official classes began. Tuition took place in the new campus house, the Kya Rosa which was located in Skinner Street with a staff compliment of four professors and 32 enrolled students.

On 17th May 1910 the TUC acquired a new campus in the east of Pretoria where the cornerstone of the Old Arts Building was laid by the Governor General Gladstone on the 3rd August 1910. By September 1911 the TUC had moved into the newly constructed facility with seven professors, six lecturers and 62 enrolled students.

Establishment Years: 1929-1948

10th October 1930 was the official date for the establishment of the University of Pretoria. Up until the early 1930's the TUC was the only fully bilingual university in South Africa. By 1931, however 65 percent of the student population were Afrikaans speaking but only 32 percent of the classes being conducted in Afrikaans. It was in 1932 that the University Council decided to address the imbalance and declared that Afrikaans become the only medium of instruction. By 1943 there were seven faculties at the University's Main Campus.

Expansion Years: 1948-1982

This period is characterised by the physical growth and expansion of the University of Pretoria. Between 1948 and 1982 student numbers doubled, necessitating physical expansion of the campus and new buildings appeared in rapid succession. The expansion of the University grounds grew eastwards as a result of urban restrictions. This growth was accompanied by the increase and modernisation of academic and support facilities.

Transformative years: 1982-2008

In 1989 the University was declared officially open to all races with the transformation occurring with very little resistance. A new language policy was adopted, returning the University to the original bilingual status. The addition of distance education transformed the University by broadening its student demographics. The Institution opened a Campus in Witbank in 1989 and a Campus at

Hammanskraal in 1994. In 1999 the Council for Scientific and Industrial Research was completed as well as the Innovation Hub in the year of 2004. In 2000 the Groenkloof Campus was incorporated into the University's curriculum, and a specialised Business School, the Gordon Institute of Business Science was opened in Johannesburg. The University incorporated the Mamelodi Campus further expanding its outreach and diversity. (www.up.ac.za)



Fig. 4.7: University of Pretoria Ou Lettere Building 1911



Fig. 4.8: University of Pretoria Aerial view 1910-1960



Fig. 4.9: Campus Map indicating eastwards expansion of UP Main Campus

4.3 Tourism Industry Facts and figures

Tourism remains a major contributor to the global economy, contributing an estimated 10% to the Global Gross Domestic Product (GGDP). In South Africa the tourism industry contributed about 8.3% to the country's GDP in 2006. In 2005, Gauteng attracted a total of 3.6 million international arrivals and 18.8 million bed-nights - an increase of 6% and 5% respectively from 2004. The total contribution of international arrivals to Gauteng's Gross Geographic Product (GGP) was about R16.5 billion – an average of 4.6% of the provincial economy.

In 2006 Gauteng attracted 21.2 million international bed-nights, an increase of 11% from 2005. The available statistics for the first 3 quarters of 2006 indicate that the province is edging towards achieving a watershed 4 million mark in international tourists. The total international arrivals and bed-nights are increasing but average length of stay has dropped from 6.6 nights in 2006 to 5.2 nights in 2007. This decrease in length of stay is in line with the national trend of shorter trips to South Africa with the overall length of stay decreasing from 10 nights in 2002 to 8.2 nights in 2006 (Stats SA 2005).

The South African Tourism sector performed well with increased volumes in both foreign arrivals and domestic trips. Revenue generated from tourism grew from R81, 8 billion in 2005 to R83, 1 billion in 2006. The performance of tourism in volume and value terms resulted in an increased contribution to the GDP from 7.96% in 2005 to 8.3% in 2006. The number of new jobs created in the economy through tourism increased by 9.6% from 864,460 in 2005 to 947,530 in 2006.

The South African cabinet has identified tourism as one of the top five priority areas for the promotion of economic development and job creation. It is estimated that by the year 2010, hospitality and tourism will be the largest global industry employing more than 328 million people. However, the demand for high calibre, well educated, intelligent, enthusiastic staff already outstrips supply which naturally leads to one asking "are hotel training schools meeting the needs of the country's requirements?"

Foreign Tourism

South Africa recorded its highest number of foreign tourist arrivals in 2006 and recorded a 13.9% increase with 8,395,833 foreign arrivals compared to that of 2005. This performance exceeded the global average of 4.5% and shifted South Africa from 31st to 29th position in the global tourism destination rankings. Total Foreign Direct Spending (excluding capital expenditure) increased by 9.6% from R60, 7 billion in 2005 to R66, 6 billion. International tourism receipts to South Africa outperformed the global average of 4.5%. Income from hotels was the major contributor of this increase accounting for 10% of total income received from accommodation in South Africa in 2006

The length of stay for 2006 with both the average and most common length of stay remain at 8 and 2 nights respectively. More than 50% of all arrivals to South Africa are made up of leisure travellers. Holiday remains the primary purpose of visit to South Africa. The average number of provinces visited by all foreign tourists to South Africa is situated at 1.35, with the majority of tourists being attracted by the Gauteng and Western Cape (Stats SA 2005).

Domestic Tourism

Domestic travel is on an upward trend, with approximately 37 million domestic trips undertaken by about 42% of the South African adult population. Revenue from domestic tourism is estimated at R16.5 billion. The major beneficiaries of domestic tourism in 2006 were KwaZulu Natal and Gauteng, with both provinces being the source and destination of the majority of domestic trips.

Domestic tourism contributes significantly to the tourism sector accounting for 82% of total tourism volume in South Africa. It has untapped potential as it contributed only 27% of total tourism receipts in 2006. This market presents an opportunity for growth given that holiday travel accounted for 18% of total value captured by the domestic market in 2006. In competitive theory terms, vibrant domestic markets support innovation and will therefore in the long-term complement international marketing efforts.

Tourism Demand from Overnight Visitors

As part of the City of Tshwane Metropolitan Municipality's Strategic Tourism Development Planning process, a survey of accommodation establishments was carried out during 2005. The resulting data indicated that of the 435 establishments there are approximately 9030 rooms containing an estimated 17 472 beds. According to Grant Thornton an estimated 2 million room nights were sold during 2004.

The Hotel Industry in Tshwane

According to the Tourism Grading Council of South Africa, there are an estimated 6085 establishments nation wide, of which 890 are located in Gauteng. The TGCSA currently lists 615 graded hotels in South Africa, of which 141 are located in the Gauteng Province. At present there is an estimated 38 graded hotels in the City of Tshwane Metropolitan Municipality. The City of Tshwane Strategic Tourism Development Plan estimates that there are a total of 68 hotels, representing almost 5800 rooms of all grades.

Capacity

It is estimated that there are an average of 94 rooms per hotel. There are currently 38 graded hotels in the City of Tshwane, of which 2 provide 2 - Star accommodation, 17 provide 3 - Star accommodation, 16 provide 4 - Star accommodation and 3 provide 5 - Star accommodation. The occupancy rate for Pretoria City hotels was 67.4% for 2006.

The newest hotels to open in the City are the 118 bedroom 4 - Star Premier Hotel, which opened in Church Street in March 2007 as well as the 18 bedroom 4 - Star Rugby House at the High Performance Centre at the University of Pretoria (Thornton).

Establishment	Star Grading	No of rooms	Location
Court Classique	4-Star	58	Cnr Beckett & Schoeman Street
Premier Hotel Pretoria	4-Star	118	Church Street
Rugby House Hotel	4-Star	18	HPC, UP Sports Grounds
Southern Sun Pretoria	4-Star	212	Cnr Beatrix & Pretorius Street
The Courtyard Arcadia	4-Star	69	Cnr Park & Hill Street
The Villas	4-Star	56	Cnr Orient & Pretorius Street
Arcadia Hotel	3-Star	139	Proes Street
Holiday Inn Garden Court	3-Star	157	Cnr End & Pretorius Street
Hotel 224	3-Star	224	Cnr Schoeman & Leyds Street
Protea Hotel Hatfield	3-Star	12	Cnr Burnett & Festival Street
Protea Hotel Hatfield	3-Star	28	Prospect Street
Sentinel Executive	3-Star	30	Arcadia Street
Brooklyn Lodge	3-Star	60	Cnr Bronkhorst & Tram Street
Pretoria Hotel	3-Star	195	Cnr Hamilton & Church Street
The Don Suite Hotel 1	3-Star	46	Pretorius Street
The Don Suite Hotel 2	3-Star	47	Schoeman Street
Total		1529	
Total 4-Star		561	
Total 3-Star		968	

Fig. 4.10: Established hotels in direct vicinity of site

The Business and Conference Market

The data gathered by Grant Thornton indicates that the average business conference or seminar consists of between 20 - 100 delegates which are organised over a period of 2 to 4 nights per event. The businesses interviewed indicated that 4 - Star accommodation is the norm and that the Hatfield / Arcadia area was a preferred location for the conference and seminars held in Pretoria.

	Estimated Room Occupancy in 2004	Estimated Room Night sold in 2004
Bed and Breakfast	52%	147210
Backpackers	40%	4599
Guest Houses	55%	307516
Hotels	64%	1360525
Self-catering	65%	70273
Lodges	65%	144907
Total	62%	2035030

Fig. 4.11: Estimated accommodation Establishments Roomnights Sold

University Market

Potential sources of demand for the proposed hotel could include:

- Parents from elsewhere in South Africa enrolling their children.
- Alumni visiting for the events organised by the Tukkies Club.
- Overseas visitors to the University, including faculty and visiting delegates.
- Short course delegates. (there were 16000 delegates to short courses in 2005)
- University conferences, both domestic and foreign.
- Visitors to the sport centre.

	Number of Establishments	Estimated No of Rooms	Estimated No of Beds
Bed and Breakfast	153	776	1539
Backpackers	3	32	66
Guest Houses	168	1532	2935
Hotels	68	5784	11475
Self-catering	20	296	607
Lodges	23	611	1314
Total	435	9030	17956

Fig. 4.12: Accommodation establishments in the City of Tshwane Metropolitan municipal Area

	Total Bed nights Sold	Bed nights sold to Foreign Tourists	Bed nights sold to Domestic Tourists	Total No of Tourists	Total Foreign Tourists	Total Domestic Tourists
Bed and Breakfast	198733	69557	129176	51003	15121	35882
Backpackers	8278	7864	414	1825	1710	115
Guest Houses	415146	166058	249088	105291	36100	69191
Hotels	1972762	907170	1065291	193190	197276	295914
Self-catering	112438	44975	67433	28517	9777	18740
Lodges	210115	79844	130271	53544	17357	36187
Total	2917472	1275768	1641703	733370	277341	456029

Fig. 4.13: Breakdown of Bednights sold (Formal accommodation only)

4.4 Trends in Hotel Development

The international tourism industry experienced substantial growth during 2007. It is believed that this trend of growth will continue well into 2008 despite the slowdown in the global economic market. International trends guiding hotel development include the following:

- Sustainability issues such as energy efficiency, water saving and waste management are currently making an impression on the client.
- Research indicates that a third of all travellers are “experience driven” which is driving the increasing number of boutique or lifestyle hotels being developed around the world.
- International fashion houses, such as Versace, Armani and Moschino are partnering with hotel groups to develop fashion hotels in locations such as Dubai, Italy, Australia, Ireland and Paris.
- Technology is becoming increasingly important.
- Space is a luxury. Hotel rooms that are larger create a sense of opulence.

4.4.1 South African Hotel Development

Historically, hotel development in South Africa was driven by local investors such as Southern Sun and Protea Hotels. During the 1990s, when City Lodge entered the market, a new trend towards limited service and more budget hotels emerged. During the transformative years of the country there was a surge of hotel development, particularly within the 5 - Star market.

The recent strong performance of the South African economy along with the prospect of hosting the FIFA Soccer World Cup in 2010 have resulted in a number of new hotel developments in the major centres such as Cape Town, Johannesburg, Port Elizabeth and Durban.

4.4.2 Room Sizes

Hotel room sizes vary, with no definite dimensions given by the regulating authorities. The sizes are entirely dependent on the type and standard of the hotel. Budget hotels tend to have smaller rooms, while luxury hotels tend to have larger and more spacious rooms. The South African Tourism Grading Council requires that rooms be large enough to allow for easy movement, with higher star grading requiring more space.

The average room size for standard hotels in the USA is 30.2 square meters, with luxury hotels averaging about 43.7 square meters. Thornton (2008) indicates that the average room size for a 150-300 bedroom hotel in Europe ranges from 17.5 square meters for budget / economy hotel to approximately 36 square meters for a luxury hotel. The average room size for a 250-500 bedroom hotel in the USA ranges from 21.9 square meters for budget / economy to about 37.2 square meters for a luxury hotel.

The South African average for a 4-Star hotel room ranges from 12—22 square meters while the suites range from 36—100 square meters. The average for a 5- Star hotel ranges from 24—55 square meters while the suites average 70—137 square meters.

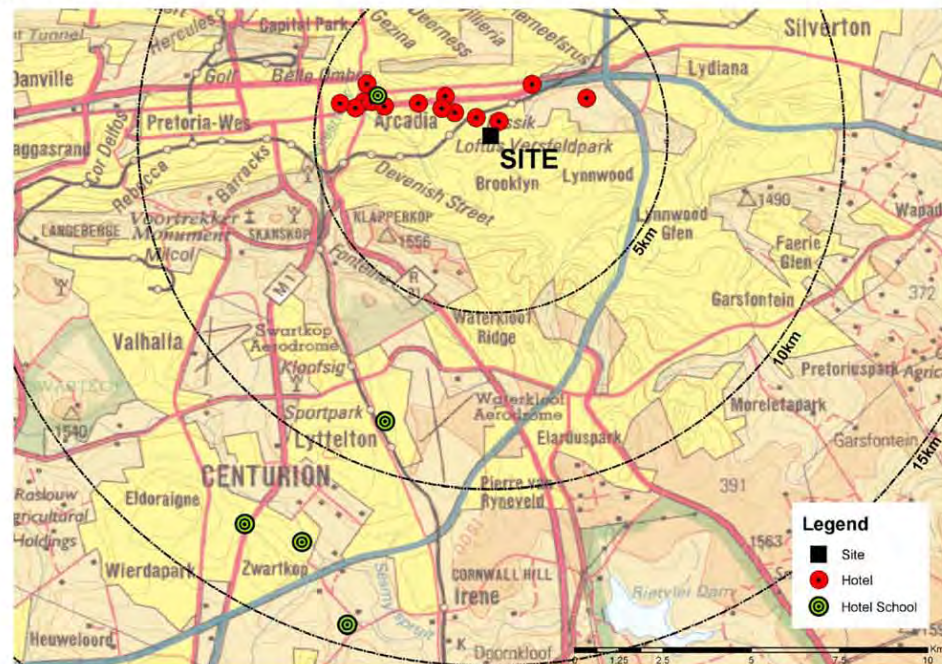


Fig. 4.14: Competing Hotels and Hospitality Management Schools within vicinity of site

4.5 Architectural Response

Box hotels versus lifestyle hotels

The expansion of the international hotel chains, in their vast majority, was accompanied and made possible by a process of standardisation and commoditization. This process generated the birth of the box hotel concept, characterized by the uniformity of the core and facilitating products. The lack of differentiation between the hospitality products and services resulted in a lack of identity concerning the global hotel industry.

The systematic standardisation of the hospitality product provoked a counter-movement inspired by consumers searching for hotels with unique or sophisticated and innovative characteristics, called boutique, design or lifestyle hotels. In the beginning of the 80s of the last century the term boutique hotel swept through the market and was used to describe unique 50-100 rooms properties, non chain-operated, with attention to fine detail and individual decoration in European or Asian influenced furnishings. Sophistication and innovation explain the growth of the design and lifestyle hotel niches.

On the core and facilitating product levels, box hotel companies present savings in building and staff costs - due to the standards of performance - as a major advantage to the hotel operator. In the marketing policy, the uniformity of the concept and the strong recognition of the brand are used to influence the consumer's choice. Commoditization generates, within traditional segments, a feeling of security and familiarity. For the widely-travelled tourist, however, the stay in a box hotel turns into alienation and anonymity. Many of them share the experience of awaking in a hotel room while asking oneself:

"Where am I now?" This negative guest experience, caused by impersonality, predictability and boredom, has led to an important loss of clients and turnover with box hotel companies.

Since the supporting and augmented product level make it possible to add a memorable experience to functional lodging, it is especially on these levels that lifestyle hotels can differentiate themselves from box hotels. It is difficult to transmit a memorable experience for a box hotel, where the operations are controlled by standardised manuals and staff procedures are defined to the finest details. Lifestyle hotels, on the other hand, seek to offer a full-balanced stay by means of experiential branding which refers to positioning strategies that promise a certain type of pleasurable experience, encompassing

all or part of consumers' interaction with the brand. It is possible to manage hotel attributes so as to create pleasurable experiences by applying a matrix including "hardware" components (the "what") and "software" components (the "how"). Through this matrix, the "hard" components, on the core and facilitating product levels, are made subservient to the "soft" elements, the pleasurable experiences belonging to the supporting and augmented level. In order to meet or exceed the customers' expectations, the pleasure experiences of the guest need to be orchestrated properly.

Optical stimulation is achieved for instance by the lightning, decoration and presentation. Olfactory stimuli include aromas, freshness and cleanliness. Music, conversation or silences are part of the auditory stimuli.

Strengths	Weaknesses
Well defined concepts with unique identity and modern character.	Need to re-adapt constantly to fast changing market demands.
Diversity in guest experiences.	Lifestyle fatigue through over-branding.
Low cost of soft branded distribution.	Low profitability compared to box hotels.
Autonomous control over operations by the hotel itself, allowing personal expression for hospitality.	High maintenance and staff costs.
Opportunities	Threats
Soft brand distribution models as an independent hotel	Global chains dominate through acquisition and development.
Design becomes an element	Stylized concepts or imitators.
Programs allow guests to spend money	Down pricing to retain market share.
Needs and wants of post modern consumer. Quality	Consumers now expect value and quality for their money.
Brand as self image	Critical consumers.
Customer choice modeling allows personalization, increasing satisfaction of guest.	Unpredictability of the consumer, brand loyalty difficult to achieve.
Co-branding synergies (Absolute Vodka)	

Fig. 4.15: Analysis of strengths, weaknesses opportunities and threats faced by the Lifestyle Hotel

The hotel stay can thus get the value of an authentic, surprising and memorable experience for the guest. Finally, in contrast with box hotels, lifestyle hotels share a strong cultural component and often are cultural attractions in themselves rendering specific cultural tourist services like brochures on the hotel architecture and guided tours through the building. Since they also offer general tourist services (e.g. the supply of local and regional information) and dispose of their own transportation infrastructure or facilities (e.g. signposting, shuttle buses), lifestyle hotels can even be considered as autonomous cultural tourism products.

The principle element of a designer hotel is the emphasis placed upon the experience of the hotel from the inside. Design has become one of the key elements in the evolution of the hotel product, not only for the unique entrepreneurs opening unique hotels, since the movement is picking up momentum with the larger established hotel groups such as the Sheraton and Hyatt.

4.5 Conclusion

The development of tourism in South Africa has been rapid since the mid 1990's. The tourism industry for South Africa being an important source of foreign exchange, it is a major contributor to the country's gross domestic product and, is the one of the largest employment providers in the country.

Tourism in our country relies heavily upon the hospitality sector and it is seen as the backbone of the tourism industry. The provision of hospitality services is labour intensive and requires highly skilled

employees. The provision of quality hospitality management education at a tertiary level should be strongly linked to the development and success of the industry. The local Government White Paper on Tourism (RSA 1998) and the National Constitution RSA 1996b) have subsequently charged local governments with promoting economic and social wellbeing and introducing development and job endeavours in the areas under their jurisdiction. Key aspects to consider in achieving tourism based economic growth are identifying and marketing new conceptualizations of space and place.

The activities such as hosting of festivals and the creation of flagship foci, such as heritage sites, convention centres and capitalizing on locally available resources are all hallmarks of this approach. Tourism development has considerable potential in our country, given an increase in the number of international visitors from 4.5 million in 1994 when the ANC came to power, to 8.5 million in 2006 (Annual Tourism Report 2006).

The national government is seeking to capitalize on the country's rich natural and cultural resources and, as the *Tourism White Paper* (RSA 1996a) argues, if pursued responsibly tourism has the potential to positively improve the quality of life of all South Africans. Key principles embodied in the White Paper include the encouragement of community participation and the sustainable management of resources. Furthermore, the White Paper places strong emphasis on tourism development being driven by the private sector, with government's role limited to providing a facilitating contextual framework for its development.

Tourism is a dynamic and fluid industry, an economic sector characterized by varied, highly integrated and extremely interdependent sub-sectors. For instance, the service provided by tour operators relies heavily on accommodation, restaurateurs and the hospitality industry in general, and travel depends on aviation. Therefore, tourism is increasingly becoming a highly sophisticated industry from a destination marketing and management perspective.

The proposal therefore presents the perfect opportunity to expose individuals to high calibre services, products and educational concepts for which the University prides itself. The concept of the "teaching hotel" places higher value on experiential learning to complement regular classroom education. The intervention will take the form of a 4-star boutique business hotel, from which the students will make use of the experiential learning processes provided by the Hospitality Management School. The location of the proposal, being on the edge of campus would ensure that both the student and business community would be able to take full advantage of the programmes offered, whilst forging a dual relationship with the institution itself and the surrounding urban fabric.

4.6 Topography

The study area is level with a negligible slope towards the south east, with a mean level of 1300m above sea level at the intersection of Duxbury and Herold Streets. Since the slope is minor no constraints are placed on the development.

4.7 Geology

Geologically the study area is of a Precambrian origin, situated within the Timeball Hill formation of the Transvaal System. The study areas underlying geology consists of localised Andesitic sediment with interbedded agglomerate, shale and tuff. (Van der Waal 1990:13). The dominant rock types below the surface are the shale and quartzite. With regards to construction purposes the soil conditions are such that highly variable soil conditions may be expected, which may vary from solid rock at shallow depth to potentially expansive andesite soil types.

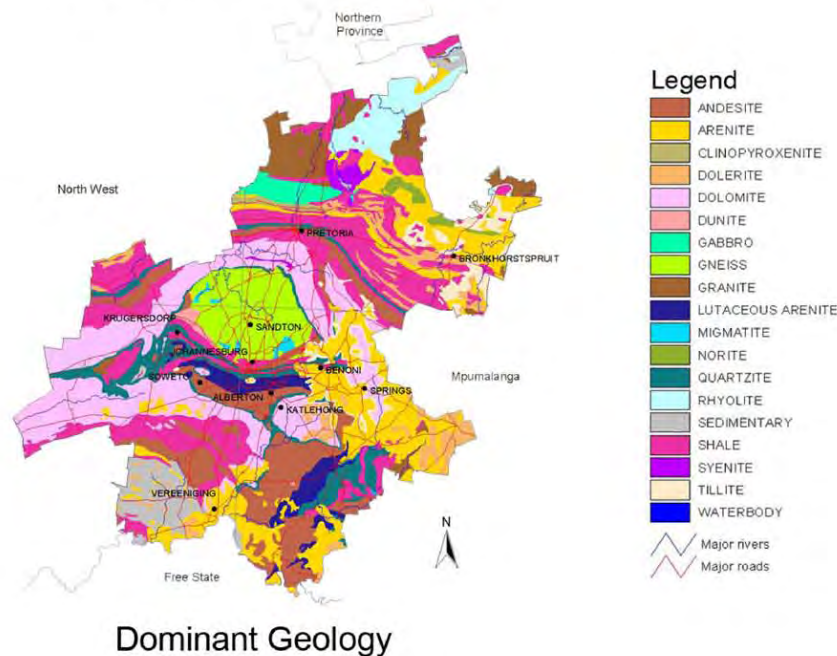
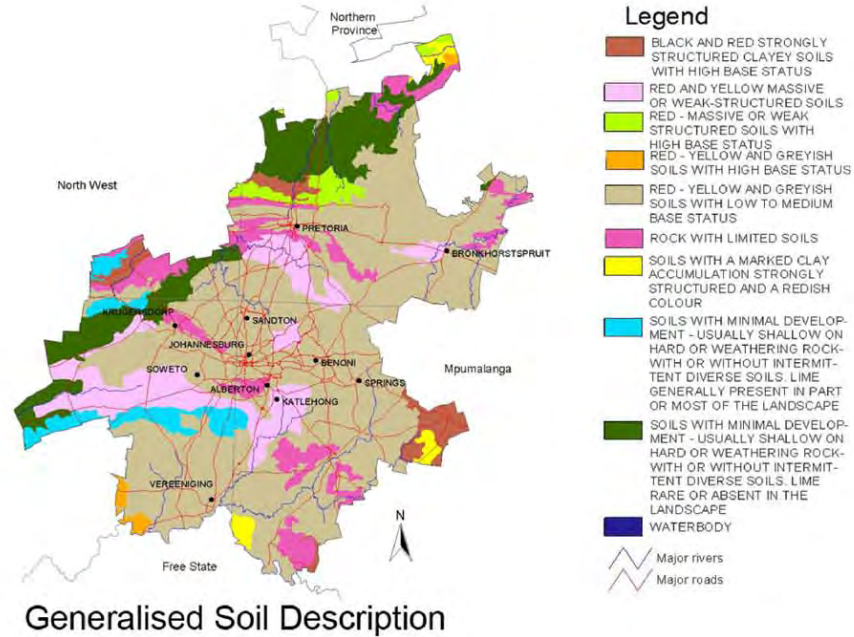


Fig. 4.16: Gauteng Soil and Geology Analysis

4.8 Climate

Pretoria falls within the temperate eastern plateau region. The area is predominantly grassland with scattered trees in the wetter parts. Summers are warm to hot, with fairly dry air, relieved by thunderstorms generated from thermal air movement. Hail is not uncommon. Winter days are pleasantly sunny with cold to very cold nights. (Napier, 2000). Rainfall is seasonal with the majority of rain occurring during the summer months, between November and March and peaking in January. Fifty to eighty days of rain can be expected annually. The reasonably high rainfall in the area allows rainwater to be harvested and stored for use when required.

Climate Facts

January temperature:	20 to 25°C(Average)
June temperature:	10 to 15°C(Average)
Prevailing winds:	N-E in summer N-E to N-W in winter
Relative humidity:	30%
Sunshine hours:	70%
Average rainfall:	674mm
Average cloud cover:	33%
Winter solstice:	22 June – 44°
Summer solstice:	22 December – 87°

Micro Climate

On a micro climatic level the site is favourably placed. The topography of the study area is level, with buildings surrounding the site resulting in decreased air velocity. The prevailing north-easterly winds will be blocked during the summer months however the pressure differential caused by the movement of air over the building will cause a vacuum to occur, creating a zone of negative air pressure and thus an increase of air movement over the proposed courtyard.

The primary problem with respect to the built form is the higher summer temperature. The high diurnal temperature fluctuation and the inefficient cross ventilation. These factors will be addressed through efficient climatic design response, with emphasis being on thermal mass that counters the diurnal thermal cycles. The building will be sufficiently sheltered against unwanted heat gain through the use of overhangs, façade layering and appropriate material use.

4.9 Legal land status

Use zone:	Place of instruction, Place of worship,
Permitted use:	Special Building, Residential, Social Building
Township:	Hillcrest
Erf number:	lot 165, remainder of portion 123
Coverage:	60%
FSR:	2
Height Restriction:	19 meters

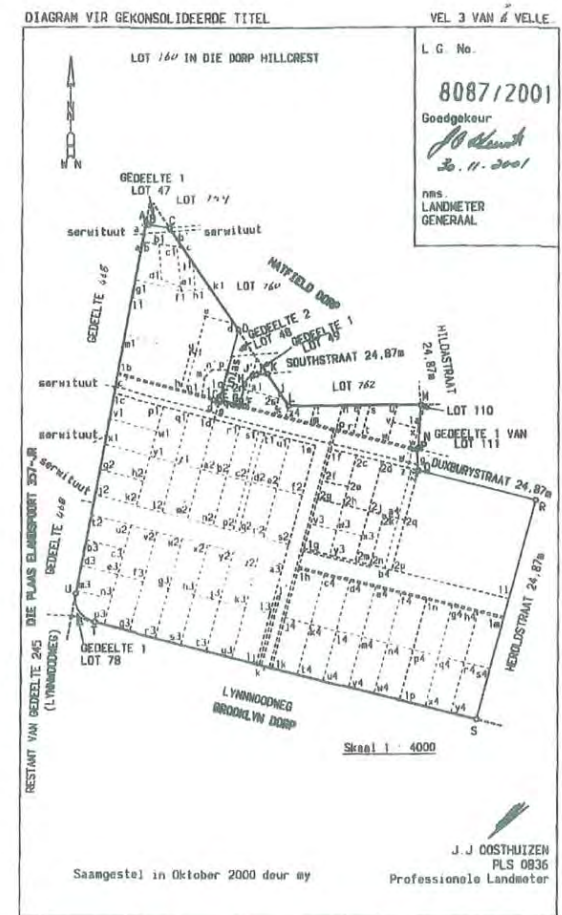


Fig. 4.17: Surveyor General diagram of site



- | | | |
|--|--|--|
| PH Provincial Heritage Site | L Library | PO Post Office |
| M Museum | S School | SC Shopping Centre |
| I Place of Interest | H Hotel | G Government/Municipal Office |
| W Place of Worship | + Hospital/Clinic | Green Space |

Fig. 4.18: Study Area Land Use

4.10 Land use and Activities

The Campus is set within the residential suburbs of Hillcrest in the East of Pretoria. The primary activities in the vicinity consist of the functions and dependant programmes of the University of Pretoria. There is an abundance of Primary and Secondary schools to the west, south and east of the site.

Sport and recreation facilities are in the vicinity of Campus, these include the L.C. De Villiers Sport Grounds farther east and Loftus Versveld Stadium to the west as well as the various school athletics pitches and stadiums. Medium to high density flats occur to the north and east of the site.

To the north and east of Campus are the University Residences as well as the business node of Hatfield a little further to the north, which is well within walking distance. Of particular importance to the site are the location of three religious institutions, which occur along Duxbury Street, which is indicative of the areas tranquil nature.

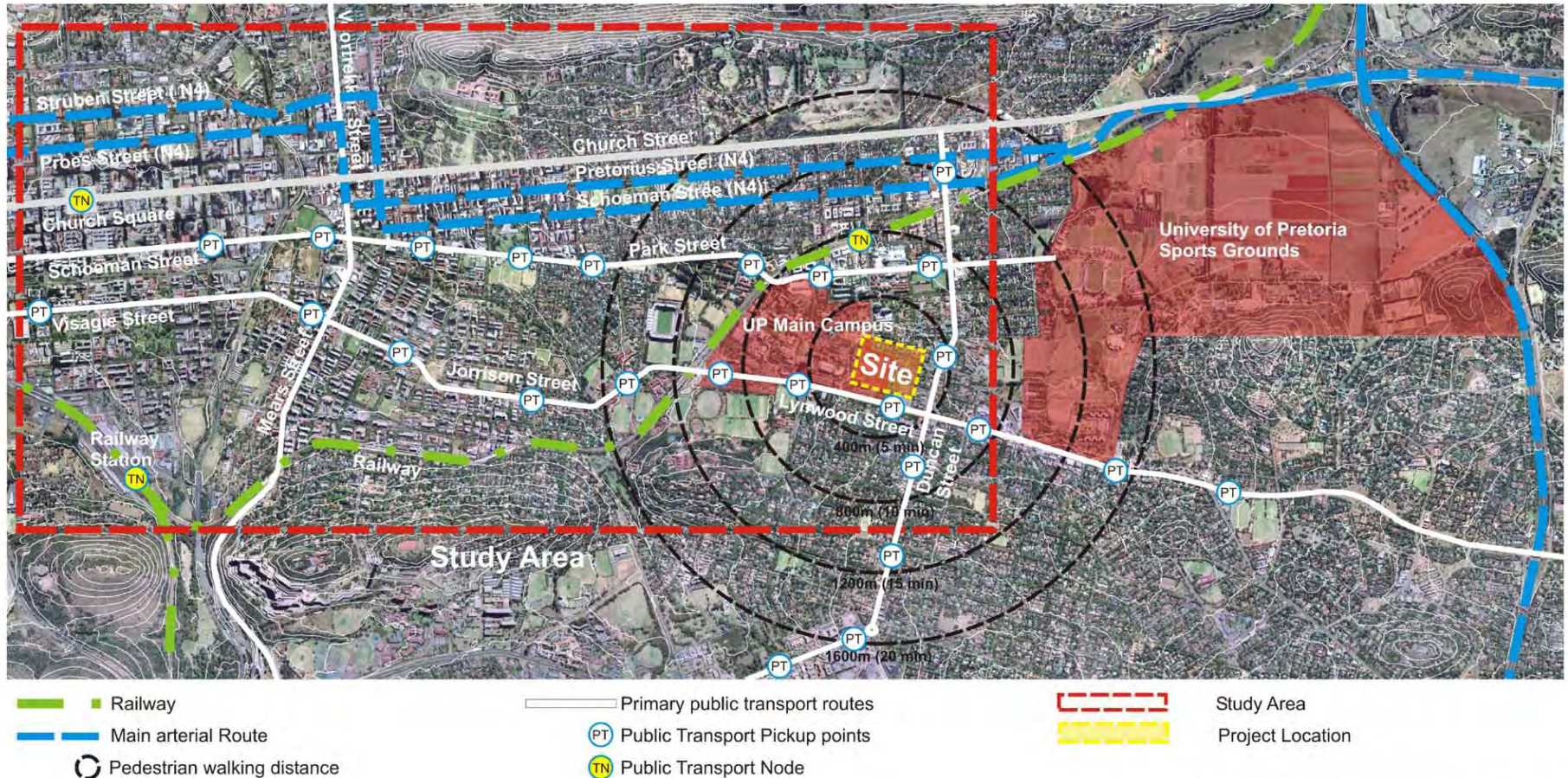


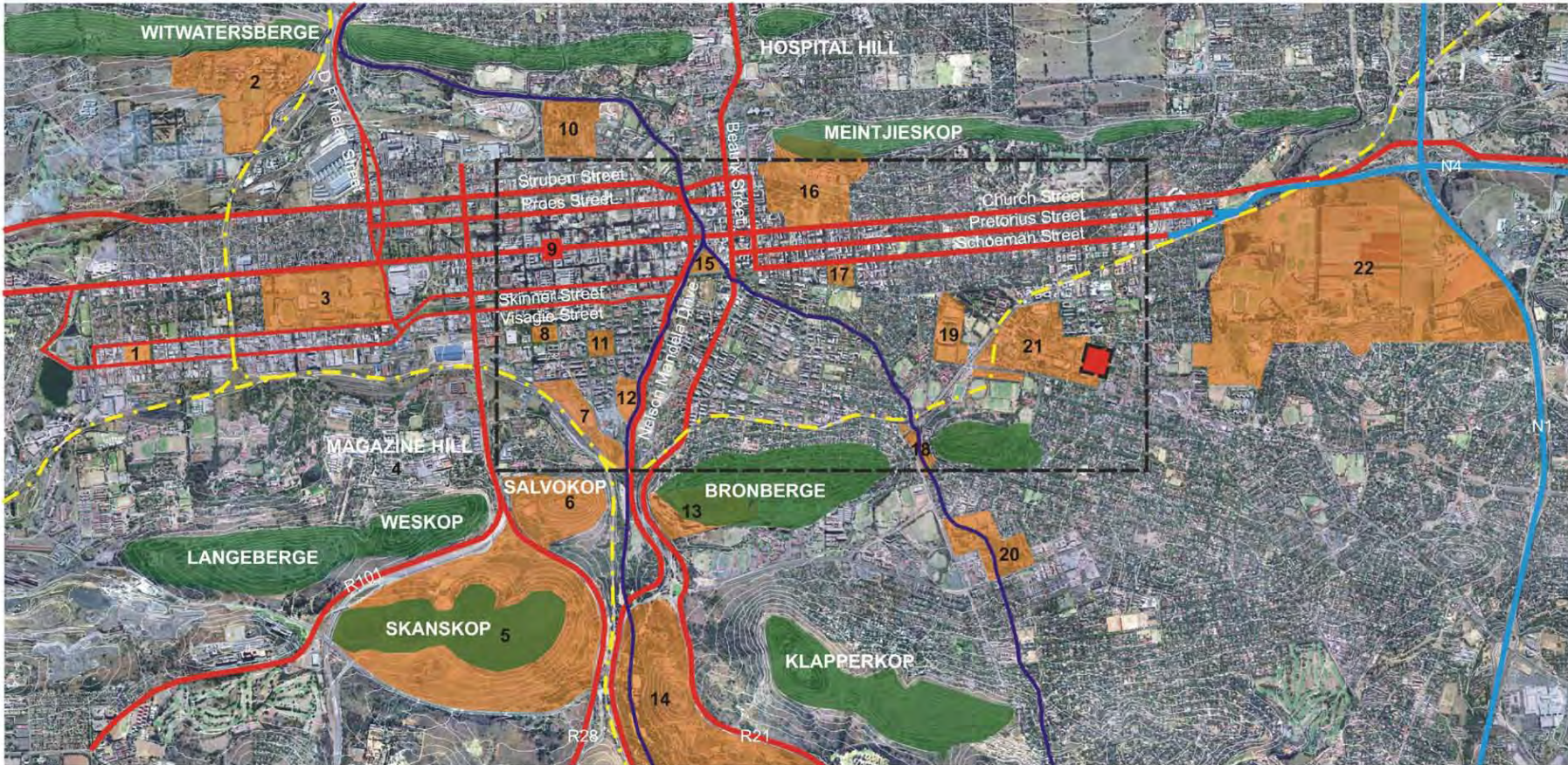
Fig. 4.19: Study Area Movement and Access

4.11 Movement and access: Study Area

The site is highly accessible; however public (external) access to the site is from Duxbury and Herold Street to the north and east respectively. Although the site is on the periphery of the city CBD, accesses to the functions of the city are easily accessible with little restriction caused by distance or mode of transport.

The public transport systems as well as the Minibus Taxi associations have set routes that follow Duncan, Lynwood and Burnett Streets all of which lead into or out of Pretoria central.

The majority of vehicular movement occurs along Duxbury Street as this road branches off from Duncan Street, which is the primary north-south arterial route of the site area.



- | | |
|---|---|
| 1 Kruger Square | 12 Berea Park |
| 2 Tshwane University of Technology | 13 Unisa |
| 3 Pilditch Stadium and Pretoria Showgrounds | 14 Fountains Valley and Groenkloof Nature Reserve |
| 4 Military Barracks | 15 Caledonian Sport Grounds |
| 5 Voortrekker Monument | 16 Union Building and Gardens |
| 6 Constitution Hill | 17 Pretoria Art Museum |
| 7 Pretoria Railway Station | 18 Magnolia Dell Park |
| 8 Pretorius Square and City Hall | 19 Loftus Versveld Stadium |
| 9 Church Square | 20 Austin Roberts Bird Sanctuary |
| 10 Zoological Gardens | 21 University of Pretoria Main Campus |
| 11 Burgers Park | 22 L. C. DeVilliers Sport Grounds and Experimental Farm |

- | | |
|--|--------------------------|
| | National Routes |
| | Primary Arterial Roads |
| | Secondary Arterial Roads |
| | Railway Lines |
| | Rivers |
| | Koppies |
| | Sites of Significance |
| | Project Area |
| | Study Area |

Fig. 4.20: City wide structuring elements

4.12 Study Area

- The site is in close proximity to the southern and eastern gateway routes to the Pretoria Inner City and falls within Trans Africa Development Corridor.
- It is situated in close proximity to several major access routes through the area. Both road based public transport as well as railroad based public transport are available within the area.
- The proposed rapid rail terminal located at the Loftus Versveld Stadium is within walking distance of the site. The proposed Gautrain terminal, which will be located to the west of Main Campus will have a positive influence on the ease of movement between Johannesburg and Pretoria.
- The site is well situated, enabling a greater accessibility to the greater Pretoria region.
- The site has the potential to play an active role in the reintegration of the University and Hatfield area because of its highly accessible nature.

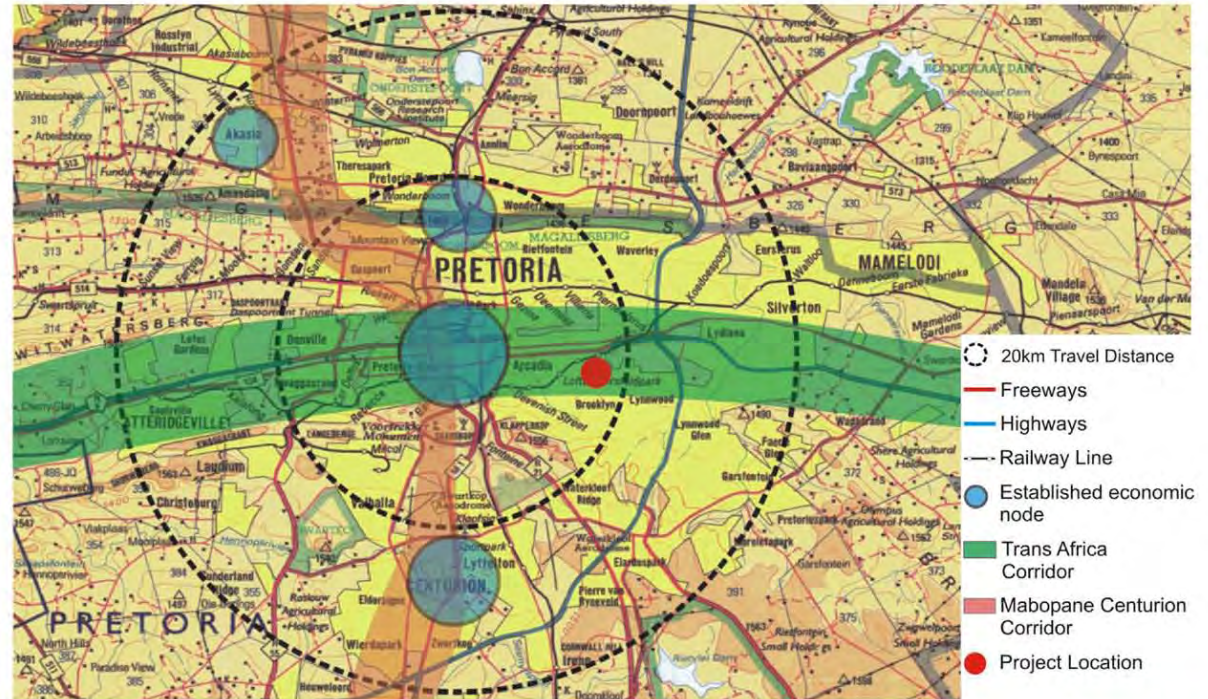


Fig. 4.21: Regional Location

4.13 Project Area

Although a site has been selected, particular attention will be placed on the campus as a whole since the development is part of and will affect a significant portion of the eastern edge of the main campus. The project area is bordered by Duxbury Street to the north of the site, Herold Street to the East and the University's Ring Road which is the Institutions primary internal vehicular route.

Advantages of the Project Area

- The proposed development is relatively accessible from the N1 and N4 arterial routes.
- The location is situated on the University of Pretoria grounds, but within relative proximity to the Hatfield business district as well as the various embassies and Union Buildings.
- The site is relatively close to the Menlyn Park shopping Centre, as well as the Brooklyn Mall.
- The site is located near the proposed Hatfield Gautrain Station.
- The business market in the Hatfield area is developing.

- The site is located in an area that is not exposed to high traffic volumes, the serene nature therefore allows for better relaxation.

Disadvantages

- The site is not visible from the higher volume vehicular routes such as Lynwood Street to the south or Duncan Street to the East.
- The public component of the development could be perceived as downmarket since it is situated on the Campus.

4.14 Current on site activities

1: Law Building

Approximately 2000 students are enrolled at the Faculty of Law. An interview with the students indicated the preference to park opposite the N.G Church, the majority of which said they use the student entrance on Duxbury street. The potential exists to extend the pedestrian walkway that the Law Building acknowledges and respects by extending it past the proposed site for the Hotel School.

2: Tomorrows People Crèche and nursery school

Approximately 60 toddlers and children attend the school. Security is of the utmost importance, which is noticeable, as the single storey building is surrounded by palisade fencing with no views into the property.

3: University of Pretoria Residence and Accommodation Affairs

Centrally placed so as to accommodate the residences in the vicinity. The double storey building is in good condition however it is unresponsive towards the street.

4: University of Pretoria Protea Residence

The residence is home to approximately 150 students. The four storey building is in good condition with no obvious architectural character.

5: Unicrest flats

The building is six storeys high with a vernacular similar to the majority of residential buildings in the area. The target market being the student not wishing to stay in a residence, but within walking distance to Campus. Parking is dealt with in the same manner as the majority of residential components in the vicinity: parking on ground level with the upper levels used for living quarters.

6: Elim Full gospel Church

An unresponsive building set back deep into the property. Congregation size varies from between 200-450 people a week. The open space in front of the building is used as parking for church members only.

7: Medical physician and Clinic

A solitary double storey dwelling that has been converted to business use. The building is a typical of the earlier veranda style houses, with corrugated sheet metal roof and plastered brick structure. The clinic is set back from the street however the building responds well to the street with patients sitting outside looking over the passers by and Cuban Café across the road.

8: Hillcrest municipal swimming pool

A seasonal facility, established by the municipality and serving the general public. The majority of the users are students, with schools from the area using the facility to give swimming lessons and physical training.

9: Black Tie Outfitters and Garment rental

Originally a residential dwelling that has been converted to business use. The building is a double storey structure, with uses ranging from nail salon to coffee shop.

10: Cuban Café Restaurant

A double storey building that accommodates dining on the sidewalk. The restaurant has a seating capacity of 200 guests, and offers a Mediterranean menu. The majority of the clientele are business and governmental diners with luncheon being the busiest time.

11: Brooklyn Police Station

The presence of police in the area offers a sense of security to residents of the area. The double storey building is hidden behind an eight foot brick wall, with no relation to the street.

12: Dutch Reformed Church

A well manicured garden and maintained church. An estimated weekly attendance of 2000 church goers attend the services held on Wednesdays and Sundays.

13: Unilofts Apartments

A newly constructed six storey building aimed at accommodating students. In an interview with a resident it became clear that there is a need for social space within the complex.

14: Herold Street Entrance

The secure eastern entrance to the University. Access is available only during office hours, after which use of the Roper Street Main entrance must be utilized to gain access to the University.

15: FABI Building 1 and 2

The Forestry and Biotechnology Institute is housed in the two buildings with a third being proposed. Approximately 1500 students attend class at the Institute. The FABI 1 building is a single storey building which seems a little out of place in the sense that it does not attempt to frame or give proportionate scale to the pedestrian path directly to the south of the building.

16: Tourism House

Approximately 400 students are enrolled in the tourism curricula of the Faculty of Management Sciences. The double storey building houses the administration functions and two class rooms. In an interview with a staff member of the University, it was suggested that a new building be proposed in order to accommodate the growth in student numbers. The potential therefore exists to provide additional lecture facilities which would link with the current Tourism curriculum with that of the proposed hospitality programme.



Fig. 4.22: Land use and activities around project area



Fig. 4.23: Buildings adjacent to site



Fig. 4.24: View of north eastern corner of site - Corner Duxbury and Herold Streets



Fig. 4.25: Interior view of primary pedestrian axis and Ring Road leading past the Law Building



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Chapter 5 _Urban Design Development

5.1 Introduction

Within the city lie many connotations such as the memories, experiences, smells, hopes, people, places, buildings and drama, which impact upon the user's impressions of a particular environment or the city as a whole. From this environment the user constructs a perception experience of the parts of the city in physical relationship to the other.

Every work of architecture impacts on the affects and details of the collective perception, whether it be localised in scale or city wide in context, and thus the image of the city is formed by the cooperative architecture in a state of concert or chaos. In the book "The image of the city" by Kevin Lynch, a study was done to understand the relationship between the physical reality of the city and that of the users' mental image within that environment. Lynch concluded that there were five basic elements that informed the user's mental image of the city.

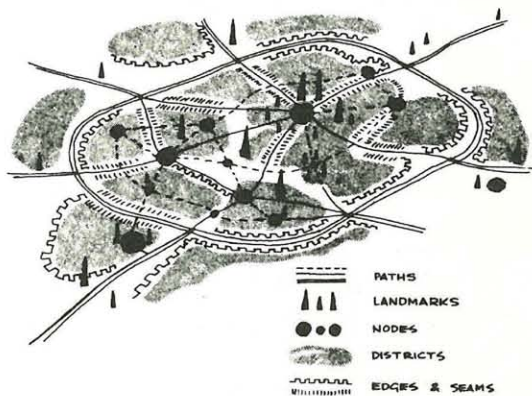


Fig. 5.1: Collective Urban elements representing the city

- **Pathways:** The major and minor routes of circulation which people use to move about at all levels of scale, whether they be city routes and networks, or pedestrian routes on Campus.
- **Districts:** the city is composed of component neighbourhoods, the districts, centres, residential, campuses, trainyards, etc. These are often times distinct in form and extent, or considerably mixed in character and do not have distinct limits.
- **Edges:** The termination of a district is its edge. Some districts have no distinct edges; rather they tend to blend into one another. When two districts are joined by an edge they form a seam.
- **Landmarks:** these are prominent visual features, which enable urban users to orient themselves within the city as well as identify the various regions.
- **Nodes:** A node is a centre of activity. It could be seen as a landmark but is distinguished from a landmark by its virtue of active function. Where a landmark is a distinct visual object, a node is a distinct hub of activity.

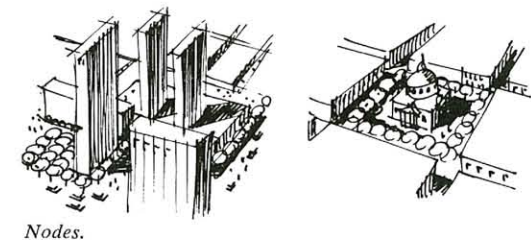
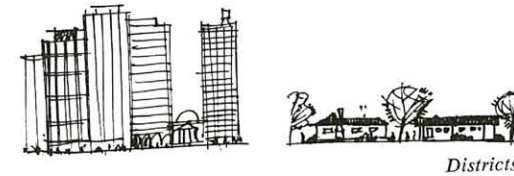
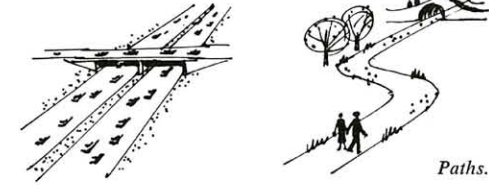


Fig. 5.2: Urban elements that inform the user perception

5.2 The Urban Space

The empiricist thinker, Jane Jacobs extends upon the theories written by Lynch concerning the aesthetic problems of borders. Jacobs states that streets and their sidewalks are the main public spaces of the city, the city's most vital organs. As a public domain the street has the potential to enhance or destroy the functional space as well as user experience. In an example Jacobs explores the possibilities concerning the university campus form. "Universities could make portions of their campuses more like the seams and less like barriers if they placed their uses intended for the public at strategic points on their perimeters, and if they also put at their perimeters, and opened up as scenes, their elements congenial to public view and interest - instead of hiding them." Jacobs gives an example of the New School for Social Research in New York where the building contains a library." The library acts as link between the street and school campus, with an attractive interior courtyard. Both the library and the view are visually opened up and dramatized and they are a delight and enlivener on their street".

Jacobs states further, that "Big universities in cities have given no thought or imagination to the unique establishments they are. Typically they either pretend to be cloistered or countrified places, nostalgically denying their transplantation, or they pretend to be office buildings." (Jacobs, 1971) Through her publication *The Death and Life of Great American Cities* Jacobs explores various theories which support a productive, habitable urban environment. She clearly indicates the importance of passive surveillance, and the responsibilities taken up by the collective individuals who treasure their environments, and identifies the three main qualities that enliven streets:

- Clearly defined public and private space.
- Natural proprietors of the street, or passive surveillance.
- A high user participation on the street.

These qualities could be summarized by stating that a well used city street is a safe street that everyone wants to use.

However it must be noted that in order for a street to be successful in terms of urban planning it must offer choice to the user. Only intricacy and vitality of use give, to the districts of a city, appropriate structure and shape. *Image of the City* by Kevin Lynch mentions the phenomenon of lost space. This 'lost space' is the resultant of an area failing to extend its diverse vitality and complexity into the overall city structure. Architecture and urban planning employ a non verbal design language from which various contexts and values are created. In the event of not identifying these values, the urban spaces as well as user experience are bound to be inimical, since the experience of well being within the city is a collective encompassment of complex relationships, encounters and perceptions.

Factors to be discussed will include social and the supportive design principles as well as the relationships between the existing site forces and the proposed development. The outcome of which will guide the project toward the vision established in the problem statement.

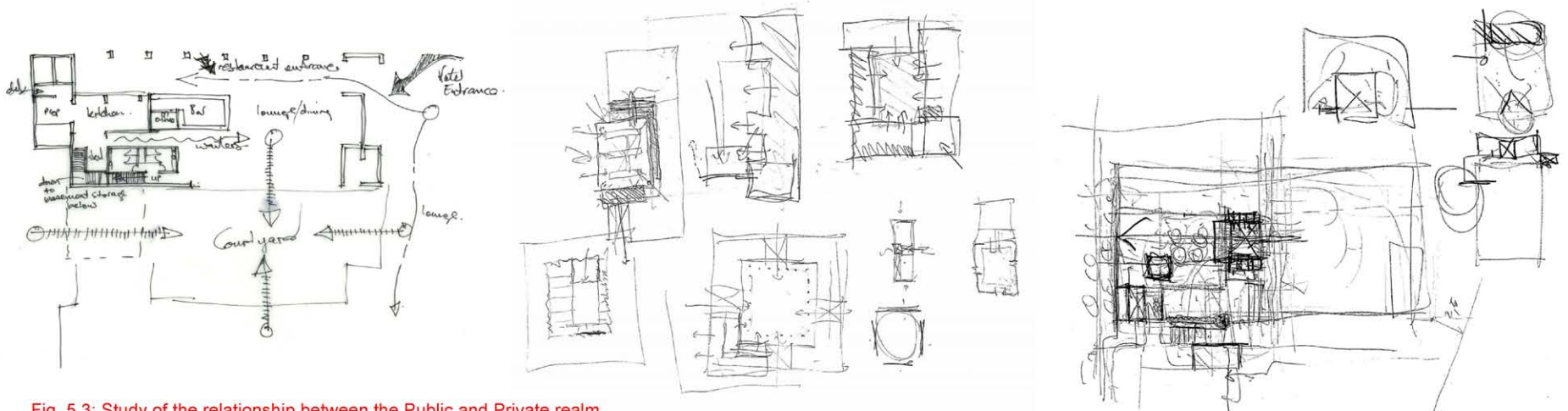


Fig. 5.3: Study of the relationship between the Public and Private realm

5.3 Social principles

The design of a space should define the kinds of behaviour and social contacts most appropriate to that place, with the primary urban design concern being the encouragement of contact and connection by fostering a sense of well being.

Professor Henry Lennard (1993) identified the following five social principles that occur in the most successful urban spaces in Europe.

Provide all members of the community safe and easy access.

Equity with regards to community participation must at all time be considered. By creating properly functioning pedestrian networks the safety and equal rights of the community can be greatly enhanced.

Facilitate frequent and regular use by local community.

Urban spaces conducive to public use are centrally located, easily accessible to all and contain in the surrounding buildings a mixture of commercial, cultural and residential functions. Public participation occurs most naturally at the heart of the community, such as crossing points of routes through the neighbourhood, where social integration and the generation of communal membership is accommodated and encouraged.

Reinforce a sense of belonging to an identifiable community.

The aim will be to foster a sense of belonging by correct placement and treatment of the threshold and the experience of visual enclosure. An essential component of both room and courtyard is the quality of the enclosed space, since the enclosure focuses attention on people and events that occur within that space.

Encourage curiosity and exploration.

Correct façade engineering can provide sensual stimulation. Varying façade depth and treatment provides dynamic patterns of light and shadow, increasing awareness of time day. Curiosity is stimulated by the views that offer glimpses of activities, such as the experiential kitchens of both the hotel and school.

Orient people and facilitate differentiated activities.

Urban spaces require articulation, such as floor surface design, level changes and focal points so that the different parts of the space have clearly defined characteristics. The clustering of various activities in close proximity provides complimentary audiences which allow free movement to occur in other sections. People are naturally gregarious, people are drawn to well used and versatile spaces. By providing planters, ledges or steps people have place to sit, which encourages momentary pause or initiates informal conversation between strangers which is an affirmation of presence to other users.

5.4 Urban Design Precedent

Regent Street, New Walk Route, Leicester, England

John Nash

Traditionally in Britain the idea of the street has been central to understanding urbanity, as the morphology of urban form is created to a large extent by the typology of the terrace block which is represented by the general continuity in streetscape.

Regent Street was planned from 1811 as a compliment to Prince Regent, who later became George IV. The street is located in the heart of Central London. Nash's vision for the street was a wide, imperious boulevard that could accommodate a continuous stream of traffic and pedestrians while offering choice to the urban user. It was designed to connect the large royal estate, then known as Marylebone Park, in the rural area north of Portland Place, with central London, with the additional benefit of improving the depressed area round Pall Mall and the Haymarket.

From the time it was built onwards, Regent Street has been a centre of London's social and commercial activity. The street was completely rebuilt from 1904 with the majority of the work done after the First World War and completed in 1927. Emphasis was placed on the street acting as catalyst. It achieves its goal through a linear approach, allowing homogeneity with regards to the planning and design of buildings. This is also the area with the widest range of land uses, which include residential, office, religious, retail and industrial buildings.

Characteristics of the Regent Street development:

- Sensitive approach to significant history of site.
- The New Walk Route passes through a number of districts, with Regent Street merging seamlessly into a larger urban setting by means of spacious and well defined pedestrian and traffic utilities.
- It allows the user to participate in the narrative of the memory of town, so becoming an architectural event.
- The extensive use of the street ensures varied use and offers a rich urban experience.
- It respects the grid of the London's street network.



Fig. 5.4: Active Public space along Regent Street

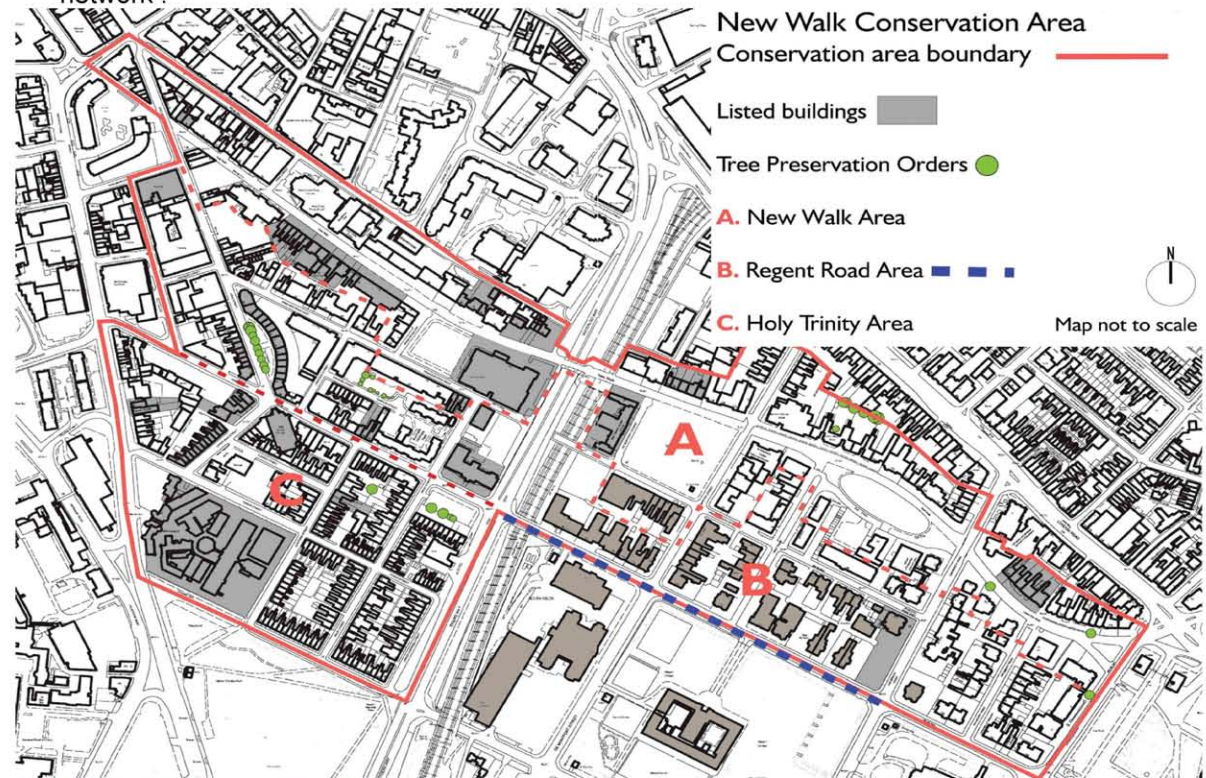


Fig. 5.5: New Walk incorporating Regent Street

5.5 The peripheral nature

Due to the site being located on the periphery of the University as well as its isolated nature, a particular design response becomes necessary. The University as a collective represents a district with an impermeable boundary. It is therefore essential to understand the inherent characteristics in order to reprogram and reintegrate the area into the surrounding urban fabric.

According to Dietmar Steiner (1993) the periphery could be defined as “the location of everyday life which is not subject to urban attention and embellishment, a state of between, between the old centres and new islands, a region of non location that remains in motion, free, contradictory, wild and plain beautiful.”

In a statement that bears resemblance to Steiner’s definition Rem Koolhaas explained that “the periphery had little to do with the location of a building but more to do with a certain state of mind, a sort of conscious self marginalisation from what have been the predominant paradigms of urban minded architecture.

The general characteristics of peripheral sites include:

- Increased erosion of the traditional urban fabric.
- Social and economic marginalisation.
- Unconsolidated spatialization.

In many respects the peripheral site has a negative image; however the innate characteristics also present substantial possibilities as areas of expansion and experimentation.

Design response:

- Potential characteristics of site specific nature will be explored.
- Reinforce linearity, thus consolidating Duxbury pedestrian activities with Campus.
- Generate hierarchy of space within transitional areas, thus creating nodes of relation.



Fig. 5.6: St Wilfred's Anglican Church adjacent to site



Fig. 5.7: Current boundary treatment of Campus



Fig. 5.8: Sidewalks dominated by the vehicle



Fig. 5.9: Student access into Campus west of project area

5.6 Site analysis

The proposed site is a vacant lot, which acts as student parking during the day and left unused throughout the evening. Although the land parcel is not classified as a Brownfield site it does include characteristics of such classification, such as underutilization in terms of spatial possibilities and economic potential and a general poor quality. It is located on the corner of Duxbury and Herold Streets. Although the site belongs to the University it has not been incorporated into the Campus framework as it is located outside the Campus boundary. The intention of this argument will be the exploration of possible solutions in order to integrate this site into the overall University Master Plan.

Duxbury Street to the north of the site acts as primary axis since it has a higher pedestrian footprint, as well as offering unobstructed views towards the north which extends well into the Campus property; however vehicular thoroughfare into the Campus from Duxbury Street is limited as the Erf boundary crosses the street. The parcel of land between Duxbury and Ring Road presents a particular design challenge as it is an “in-between” plot which does not serve any purpose.

The land use to the north of the site is considerably more diverse than that of the east, since it is the destination of the University of Pretoria Pre Primary School, UP Residential Affairs, residential flats, the Brooklyn Police Station, the Cuban Café restaurant and the Hillcrest Municipal Swimming Pool further eastward.

The sidewalks are of a poor quality on both public streets, however particular attention must be placed on the Herold sidewalk as the space required for pedestrian movement between parked vehicles and site perimeter is insufficient as a result of the informal parking strategy that the University employs.

According to a local car guard there is a need to formalize the parking since the students are constantly complaining about broken side view mirrors, scratches on their vehicles and the amount of dust generated by the poor sidewalk conditions. More attention will be paid to the parking strategy in section 5.8.

Directly adjacent to the corner of Duxbury and Herold Streets are the St Wilfred's Anglican Church and the Dutch Reformed Churches respectively. This provides a strong influx of student and public participation to the area over the weekends.

In terms of scale, the surrounding building heights vary considerably. The scale along Duxbury Street varies between one and five storeys, whereas along the eastern side the building heights vary from between two to seven storeys. The existing FABI building to the west of the site is a single storey courtyard building; however a preliminary proposal for a future addition and extension of the FABI faculty has been submitted. From the information gathered the new building will be of similar height to the intervention of this thesis.



Fig. 5.10: View of Dutch Reformed Church adjacent to site



Fig. 5.11: View along primary pedestrian route



Fig. 5.12: Road networks of project area

5.7 Proposed new developments

Area 1

Proposed relocation of Ring Road.

The relocation of a portion of the road ameliorates land use within the University as the proposed FABI addition will have more developable land on which to build. The parcel of land between the Ring Road and Duxbury Street is currently an awkward size, not allowing any form of productive use through its narrow dimension. The proposal therefore suggests that the Ring Road be moved three to four meters away from the existing Erf boundary in order to cater for the addition of future pedestrian walkways and allow that portion to act as buffer between the University and the public.

The proposal also includes the relocation of the bus stop which caters for the students of the L.C de Villiers residences. The current location of the bus service is South Street, one block to the north of the proposed relocation. Duxbury Street leads directly to the sport ground, with the intersection at Duncan Street being better suited to handle traffic flow since it is controlled by traffic lights.

Area 2

Proposed addition to the Forestry and Agricultural Biotechnology Institute (FABI). The preliminary plans for the addition have been submitted to the University for perusal, however no finalised scheme has been forwarded. The new addition will utilize a basement parking that will extend under the relocated Ring Road and link directly with the Hotel School basement parking. The Tourism House pedestrian movement to and from the Hotel School will be reinforced by the new FABI development.

Area 3

Proposed future development.

The site has the potential to reinforce the premise of this thesis through allowing a private-public interface. Possibilities include future developments that focus on outreach programmes or business oriented curricula. The intention is for the eastern portion of Campus to enable interaction between itself and the public. Other possibilities include the site remaining as parking or an additional parkade structure with retail facilities on ground level.

Area 4

Proposed parkade structure.

A high volume parking structure would facilitate the parking requirements of students attending class at the University. The parking strategy for the proposal is discussed in more detail in section 5.8.



Fig. 5.13: Proposed new developments within study area

5.8 Parking

According to a survey carried out by the University there is an estimated 5865 parking spaces in and around the Main Campus. There are 2596 parking bays within the perimeter of the University of which 809 are covered, and approximately 3269 informal parking bays located outside the University boundary (Barnard 2004).

The study concluded that the only sustainable alternative for the provision of parking would be structured parkades. It has been suggested that between 1250 and 1750 additional parking spaces be provided for within the next five years to accommodate future expansion as well as student population growth. By formalising the street parking a possible 100 additional parking bays could be accommodated for.

Five areas have been identified as possible locations for the structured parking which would alleviate the pressures on the surrounding environment associated with insufficient parking.

- H1 – The area next to the Roper Street entrance.
- H8 – Behind the Aula.
- H29 – The area on the corner of Herold and Duxbury Road.
- H30 – The area on the corner of Lynwood and Herold Street.
- H17 – The corner of Festival- and Burnett Street. This alternative could possibly be developed in cooperation with the private sector.

H 30: Adjacent to project area

Number of parking spaces:

300 of 800

Accessibility:

Access from Herold Street or Lunnon Street.

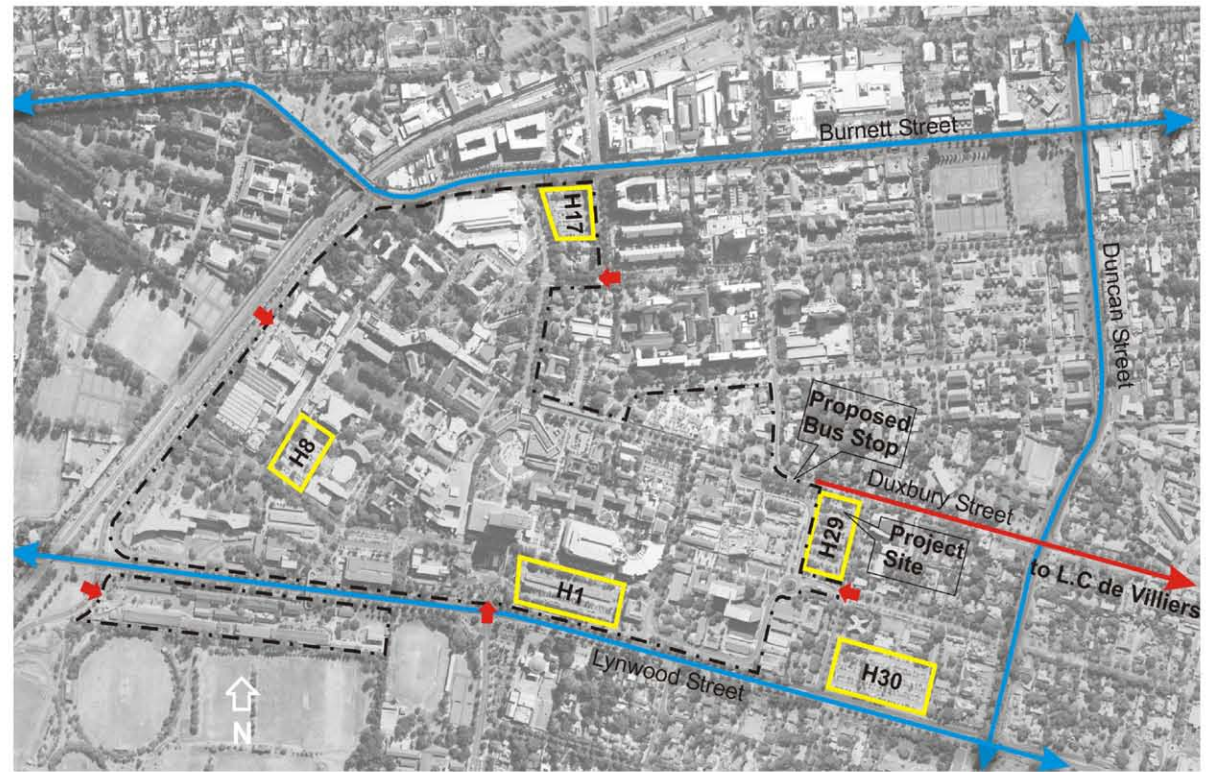
Location / walking distance from classes / personnel:

Approximately 550m from center of campus. Could serve classes on the east of Campus and possibly course attendees.

Development potential:

The possibility exists to develop the parkade in collaboration with the residential developments occurring within the area, where the higher levels could be reserved for private use.

The bus service which transports students between the men's residents at L.C de Villiers and main campus could be accommodated to the west of the project area. Two to three busses depart simultaneously at 07:00, 08:00 and 12:30 with a total of 14 busses per day containing a collective 1260 passengers being transported and dropped off at the student access point along Duxbury Street.



- - - Existing Campus Boundary Proposed Parkade Structures ➔ University Vehicular Entrances

Fig. 5.14: Proposed location of structured parking facilities

5.9 Urban Design Informants

- It is crucial that the design acknowledge the existing visual and pedestrian axes of the site.
- Attention must be focused on celebrating the corner of the development.
- Integration of building with existing Campus boundary.
- Reinforcing user participation by recognizing existing street grid through boundary treatment and pedestrian accommodation.
- Treatment of enclosure, by creating a hierarchy which defines the level of visual and physical access allowed into the intervention.
- The introduction of spatial links within the site.

5.10 Context Analysis: Issues, opportunities and threats

In terms of the opportunities and constraints for the proposed development a spatial framework consisting of three key issues are identified.

Integration Constraints

- Limited public accessibility.
- No contextual relationship with surrounding urban fabric.
- Perception of exclusivity through office park type security.

Integration opportunities

- The depth of programme and variation of function allows the site to play an integral role in regenerating interaction between Institution and general public.
- The site has the potential to effectively merge the threshold between private and public functions.
- Hierarchy between public and private domain.
- The graduation of public to private realm aids in the identification of space.

Hierarchical Constraints

- Spatial connections may be confused with freedom of access, rather than expression of flexible domain.

Hierarchical Opportunities

- Individuality of spatial configurations can provide a source of identity.
- The overlapping of hierarchical space allows for the development of social exchange and heightened perceptive experience.
- The order of hierarchy and its implementation allows for the potential of flexible spatial use, since no concrete boundary exists spatial manipulation is possible through multi functional domains.

Pedestrian connectivity

The primary users of the site are students and staff of the University, the flow of pedestrian movement is therefore an influential determinant on spatial connection.

Pedestrian Constraints

- The site is surrounded by vehicular movement, it is therefore necessary to provide for safe connections.

Pedestrian Opportunities

- The site geometry and active pedestrian desire lines provides invaluable information when connecting new buildings to existing infrastructure.
- By connecting the site to the surrounding it fosters a range of social interaction and investment by both the users of public and private realms.

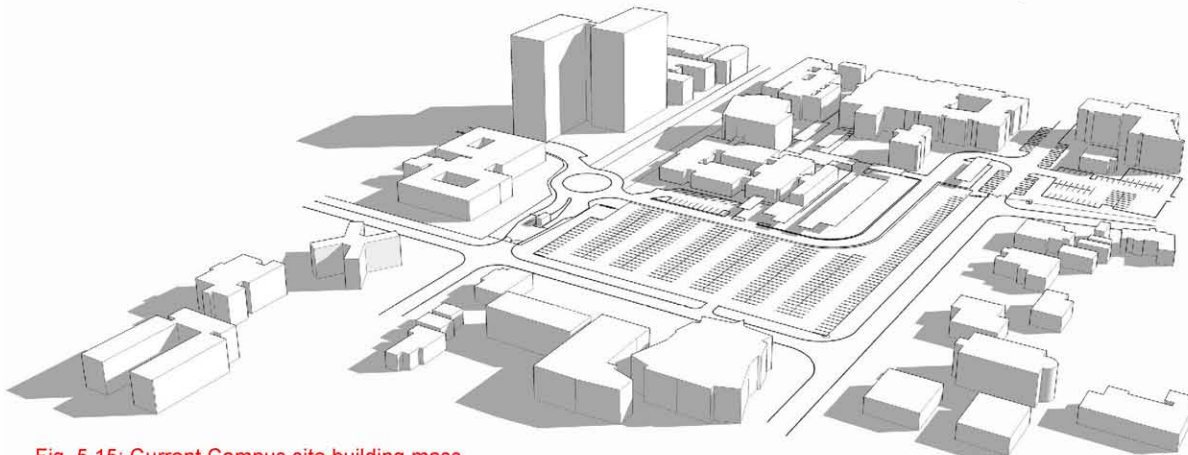


Fig. 5.15: Current Campus site building mass

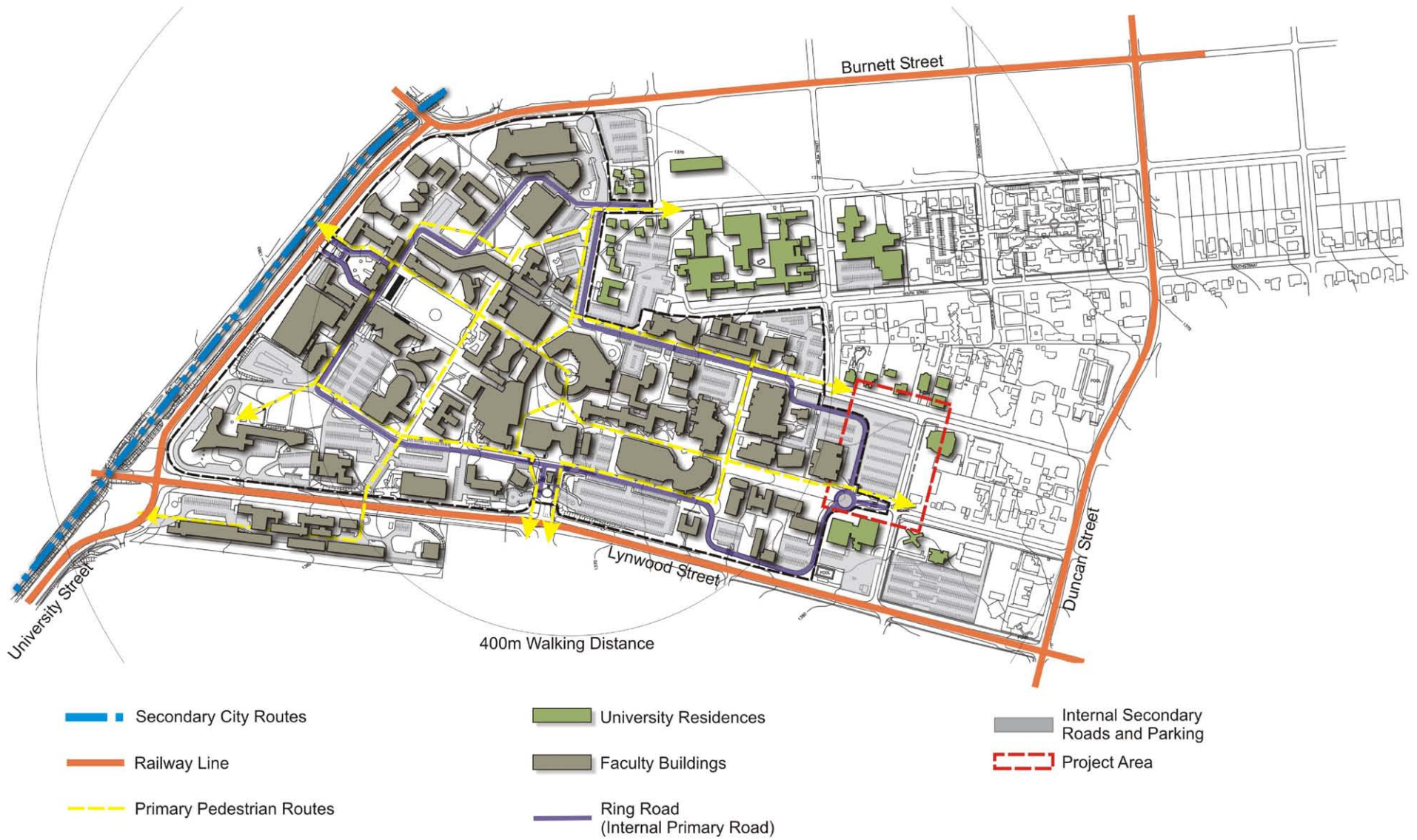


Fig. 5.16: Current Campus site forces and movement (Refer to Fig. 7.11)

5.11 Site Selection

Nature of the problem

- The site should respond to the campus's need to extend into and link with surrounding area.
- The site must address the establishment of both private and public functions, as well as enhance the sense of arrival at a UP destination.
- The site is situated on the threshold between the Campus and city; it therefore needs to be developed accordingly.
- The site is isolated and does not relate to any buildings directly.
- Due to the route that Ring Road follows just west of the site, the creation of awkward space has been created. The solution will be the relocation of a portion of the road in order to accommodate the public realm as well offer more space for development within the University.

The site was selected as a result of the following reasons.

- Its strategic location near the secure vehicular entrance.
- Its proximity to the existing Tourism House.
- The site is situated on the periphery of the Campus, allowing public participation.
- The current use does not reflect the true potential of the site.
- Its accessibility.
- Its location in terms of the tranquil setting, the variation and diversity of activities taking place in the immediate area as well as the high volume of pedestrian movement.
- Its location in proximity to the business nodes of Hatfield and Brooklyn centres.
- The possibility of the development to act as catalyst between the Campus itself as well as the community.

Vision for the site

The site is located on the periphery of the Campus, the resultant, it is the collective communities first encounter of the University. The intention will be to treat the building as a gateway building introducing the touchstones of the University to the user.

The development will comprise of two primary components: the School and the experiential/experiential Hotel, with the administrative function linking the two programmes.

Architecture of the event

Bernard Tshumi stresses the importance of cross-programming or providing multiple programmed spaces provides an architecture which allows for the generation of event occurrence. He further states that often the building scale alone ensures it of being a generator of new events, or it could simply cater for current events. It is therefore vital that the building placement be where routes or programmes converge resulting in a condition where momentary pause and contradiction occurs.

5.12 Conclusion

The spatial vision for the proposed development consists of 5 key elements.

- To establish and revitalize access routes through the exploration of place making.
- Enhance the Campus sense of place, in both the public and private areas. This will be achieved by structuring the building to accommodate the movement routes, which would integrate structure and site into a continuous set of events.
- Create a gateway development that will enhance the spatial character of the University of Pretoria's east side, by allowing choice to the user by varying the functions of the proposal.
- The services and those served will be separated. A stronger continuity of space will be possible by placing the served spaces in direct relation to the more social areas. The services will be placed toward the south edge so as to define an edge and form a buffer zone between the building and parking/ future development.
- Incorporate the site into the master framework plan of the University through cognisant planning.

The intention of the development on the chosen site will be to unify the Campus. Through this unification it is hoped that the users would become active participants rather than passive observers. Regardless of the isolated nature of the site, the precinct offers variety of choice, which is to the benefit of the community at large. The integration however does require the consideration of safety and security, as the site is located on land belonging to the University of Pretoria.

By allowing for varying degrees of visual freedom and connection that are within the limits of the programmes. The hotel and restaurant to the north will increase the eyes on the street effectively increasing the passive surveillance on the more demanding side of the development.

In terms of permeability the development will have specific programmes that allow multiple use. The courtyard area acts as spill out space for both the School and Restaurant in the event of a function requiring extra space.

It becomes necessary to formalise the streetscape on the public realm in order to accommodate the pedestrian walkways without interference of the vehicle. Structuring of the building will respect and conform to existing as well as proposed pedestrian desire lines.

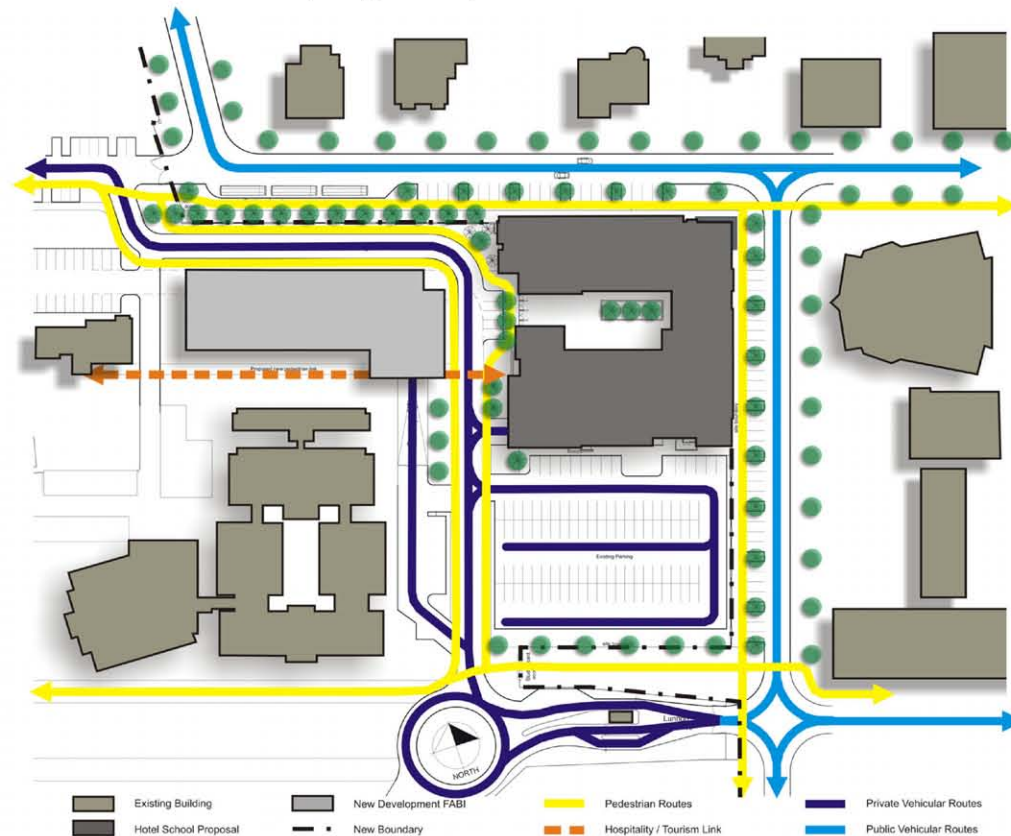


Fig. 5.17: Proposed on site forces, movement accommodation and building edge definition



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Chapter 6 _Precedents

6.1 Precedents

6.1.1 Precedent 1

Constitutional Court of South Africa, Johannesburg omm Design Workshop in association with Urban Solutions.

Situated on Constitution Hill, it incisively suggests that the South African past requires inverse narratives. Conceptually, the building is representative of elders openly discussing justice under a tree and this can be seen through the abstraction of column angle and random placement. The architectural language and values are represented through the views and positions of the collective judiciary, as well as the constitution of the country. The result of this approach was a building which reflected the victory of ideals and human rights over despair. The architectural style originated from the existing surroundings and evolved into a language that utters of openness and interwoven layering.

The project is an ensemble of modest but dignified buildings where an all-inclusive approach was taken, where the existing minor buildings are brought into compositional play to create a sense of enclosure for staff and visitor alike. The urban design and planning of the project were not seen as separate processes, but as a single unified process.

Relevance:

Transparency and participation:

The constitutional court celebrates change and invites users of the building to experience the ideals for which it stands. The uncharacteristic, slight feel of bureaucracy and



Fig. 6.1: Constitutional Court southern facade

openness are elements which make the participant feel welcome; it aims to undo the old spatial order and heal a portion of the city by creating a safe accessible and dignified environment for use by all.

Material use:

Construction systems are uncomplicated, and the palette of material was limited. The concrete formwork is untreated and left exposed with plastered brickwork and glazed curtain walls being the infill.



Fig. 6.2: Great African Stairs

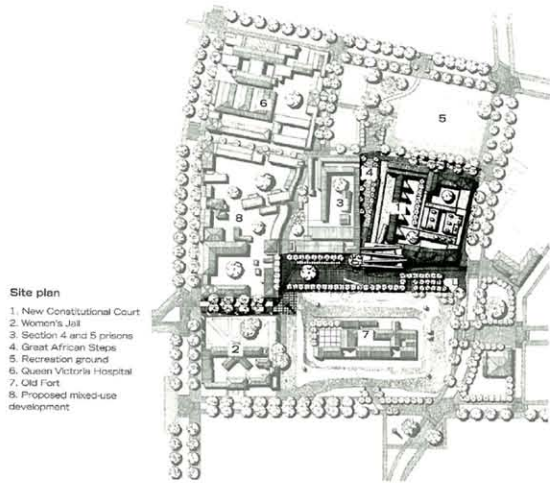


Fig. 6.3: Spatial Planning and location within context

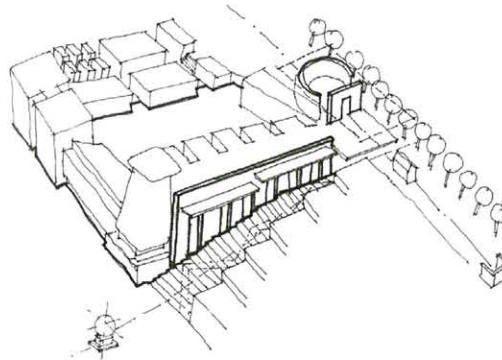


Fig. 6.5: Diagrammatic representation of connections

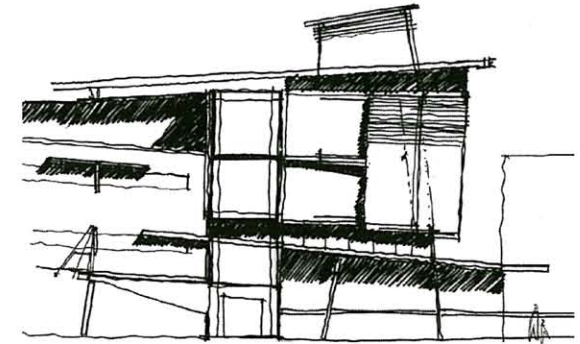
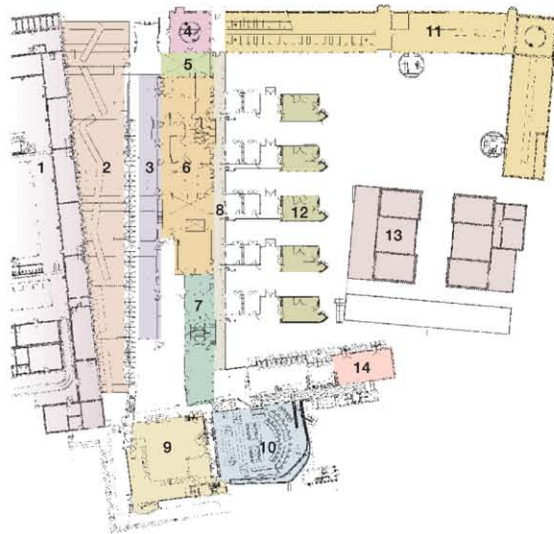


Fig. 6.8: Conceptual façade fenestration



- | | |
|------------------------------------|--|
| 1 Existing 4 & 5 gaols | 8 Internal walkway |
| 2 Great African Stairs | 9 Foyer |
| 3 Exhibition arcade | 10 Court |
| 4 Rex Welsh collection | 11 Reference library |
| 5 Public auditorium | 12 Judges' chambers |
| 6 Administration | 13 Existing sub-station |
| 7 Council robing and meeting rooms | 14 Judges' lounge, conference and comitee room |

Fig. 6.4: Floor layout and building use



Fig. 6.6: Western façade and entrance podium. The old and new are used to express the concept of harmony.

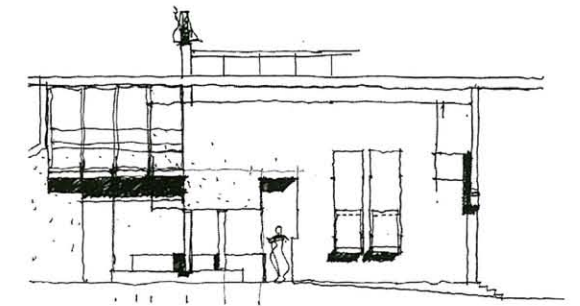


Fig. 6.9: Conceptual façade fenestration

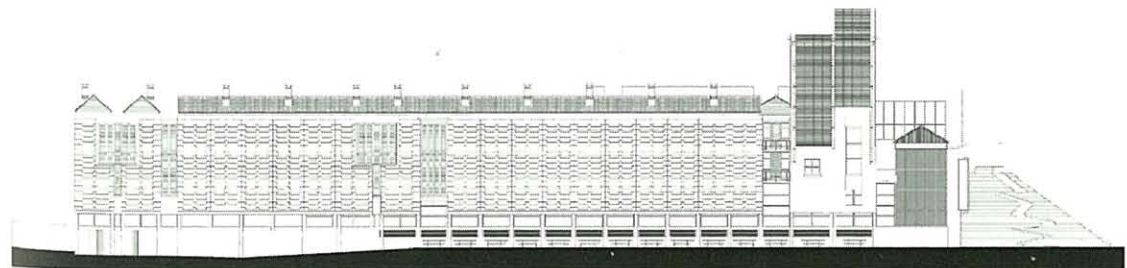


Fig. 6.7: Northern façade of Constitution Court

6.1.2 Precedent 2

Hotel Watt13, Milan, Italy Studio CaberlonCaroppi 87 Room Capacity— 4 Star

The project is situated in the Navigli canal district, where land use is a combination of design-orientated clubs, artisan workshops, homes and industrial warehouses that have been converted into lofts.

The objective of the design brief was to experiment with new concepts of hospitality, not only for the tourist and business community but also for the city and its inhabitants. The architects aim was to offer the city residents with aperitifs, brunches, business meetings, parties and events which would allow the hotel to respond to the city as a whole.

The project concentrates primarily on the image-communication aspects and on the internal-external relationship with particular emphasis being placed on the interface between intimacy and collectivity. The restaurant and bar areas are connected through spacious entrances that also extend outwards into a large open courtyard. Spatial planning, lighting, material use and chromatic effects were thoroughly studied in order to connect the hotel restaurant with the urban context. The project alternates material and chromatic contrasts, styles that range from new ethnic to technical, harmonies between natural and artificial and the relationship between full and empty volumes. The objective was to create movement which would provoke user experience and discovery.

Relevance Inclusive hospitality for the city

The hotel has positioned itself at the centre of a dynamic system of relationships ensuring that it is usable for everyone, an example being the hotel common areas, which have become multi function areas that can be exploited by the general public and in turn become a multi function complex for the city.

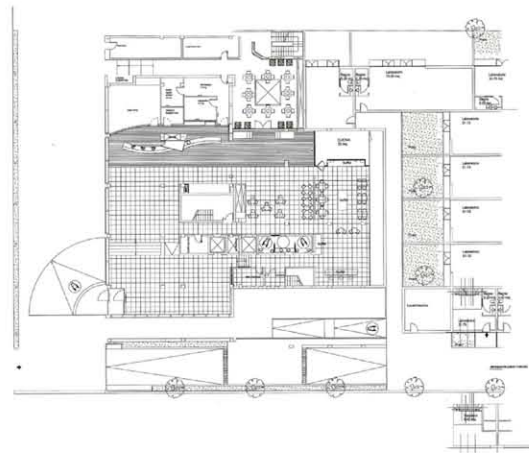


Fig. 6.10: Ground floor plan



Fig. 6.11: Hotel entrance lobby

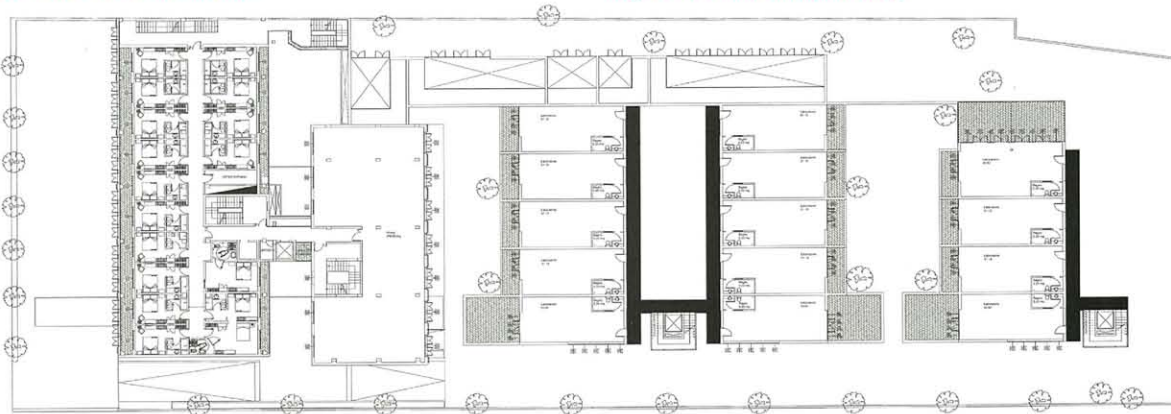


Fig. 6.12: Typical upper floor plan

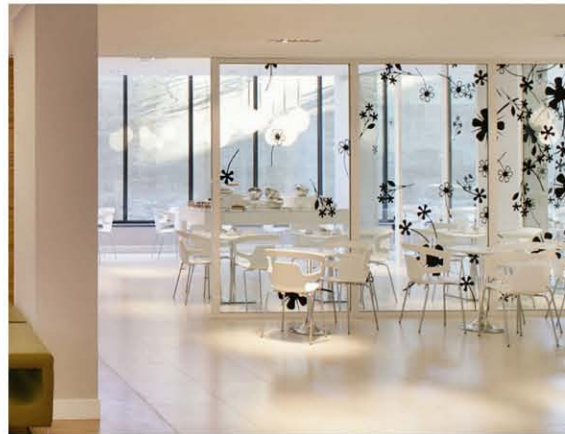


Fig. 6.13: Lighting, material use and finishing of the interior create spaces that are perceived to be bright and airy.

6.1.3 Precedent 3

Olympic College, Poulsbo, Washington, USA Muller/Hull Architectural Partnership

The area was expanding rapidly, with little room to build outwards due to the existing physical constraints. The program of the building offers adult continuing education and distance learning in a combination of classrooms, seminar rooms and labs. The brief called for a building that could readily adapt to changes in curriculum should the need arise. From the outset, the community was actively involved in the design process. The interviews with the local inhabitants led the architects to recognise the towns' modern Scandinavian roots and this is expressed throughout the building with extensive use of wood.

The classrooms are built tightly to the north of the site. The classes act as shed like volumes with clerestories and high window walls which opened to the south allowing low winter light to filter through. The treatment of lighting and climate control became primary design element to the design as does the vernacular style carpentry.

The focus was concentrated on the importance of sociability, as the structure operates during the day and evening to serve both the adult education and degree earning programs. The flexibility of the classrooms is further revealed by the accommodation of culinary arts, which has now become a standard course.

Relevance:

Planning and sociability of structure

The spatial planning encourages social interaction between students, staff and visitors alike. The lounge and lobby offer the opportunity to relax into furnished breakaway areas where informal discussion can take place without interrupting traffic flow, while enjoying optimal views. The provision for multiple functions which are grouped into a single building are simple yet effective, it allows varying groups of users to utilize the intervention at different times of day which shows its adaptive qualities.



Fig. 6.14: View along northern façade of building



Fig. 6.15: Floor plans and area use



Fig. 6.16: Wooden shed like structures enclose space where students socialize .



Fig. 6.17: Grand entrance to the school from the drop-off point



Fig. 6.18: Extensive use of full height glazing allows student visibility and the merging between interior and exterior



6.1.4 Precedent 4

Hotel Bohemia, Prague, Czech Republic
Eva Jiricna Architects
110 Room Capacity — 4 Star

Prague is a city of enormous and invigorating stylistic diversity. This magic arises from its disposition over the Vltava River, with Prague Castle omnipresent on the left bank, dominating the city's labyrinth streets and squares, hidden courtyards, grand boulevards and palaces. The French, Italian and German influences have intensified the fantastical Bohemian imagination, resulting in the decorative richness and strange dream-like juxtapositions.

The hotel is located on an urban clearing formed by the junction of three streets. The square is dominated by a decorative nineteenth century police station, which flanks the developments south side. The hotel's plain white façade is articulated by the rhythm of lightweight perforated awnings over the windows of the six floors. The building mass produced by projection and shadow is reminiscent of Czech Cubism without the distortions. The building gently introduces modernity into the historic quarter by means of using transparency, light and selective use of materials.

The hotel consists of two wings which are separated by an internal courtyard and linked by a glass corridor. The quality of light, and space as well as clear plans were important factors in the design process, and this is accomplished through the use of generous windows and glazed curtain walls, with rooms that overlook the city or into the courtyard.

Relevance

Perception of the urban experience

The city has a rich and diverse history where fantastical tendencies seem to find a place within the city fabric. The new hotel, although clearly modern, does not detract from the urban richness. Instead the building responds to the historic site and the strict building requirements.

Material choice, application and attention to detail has the ability to strengthen the perceptive experience of the guests and by doing so ensure customer loyalty.



Fig. 6.19: Consideration of the Prague context and heritage



Fig. 6.22: Typical bedroom with balcony overlooking city



- 1 entrance
- 2 lobby
- 3 bar
- 4 reception
- 5 seating
- 6 glazed lift
- 7 sunken conference courtyard
- 8 courtyard/garden
- 9 breakfast room
- 10 kitchen
- 11 bedroom
- 12 road
- 13 lift

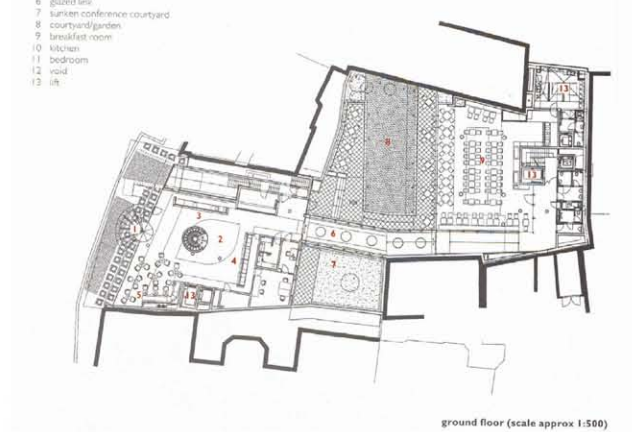
typical floor



Fig. 6.20: Internal courtyard allowing light penetration



Fig. 6.23: Attention to detail and material use.



ground floor (scale approx 1:500)



Fig. 6.21: View over Prague's skyline from hotel suite



Fig. 6.24: Presentation adds to the hotel experience



Fig. 6.25: Plans and Sections of Hotel Bohemia

6.1.5 Precedent 5

Law Faculty, University of Pretoria, Pretoria StudioKrugerRoos Architects

This precedent has been included with a particular intention as a result of the sitting on campus.

- The building shares the frayed north eastern edge of the Campus, situated to the west of the proposed development covered in this thesis, as well as sharing a common axis being the pedestrian avenue.
- The Law Building addresses similar arguments in terms of contextual setting.

Conceptually the Law Building is similar in principle to the Constitutional Court in that the brief required a transparency and dignity which reflects the ideals of South African law. It attempts to integrate urban and contextual relationships through the extensive use of lightweight performance glazing, resulting in a strong visual relationship between the campus to the south and the library. The building is host to various programmes which include administration, seminar and lecturing facilities as well as a law library. The dual main entrance to the faculty opens toward the south for students and northwards for staff.

The various functions of the building are connected by a multilevel circulation corridor or gallery arranged along its entirety. The majority of student facilities are located on ground floor in an attempt to integrate them with the rest of the Campus student realm.

Spatially the Law Faculty was designed as a city of buildings along a street with courtyards acting as nodes of interaction.

The building acts as a campus within the Campus, where the solid external walls are planes of white modern architecture that abstractly defines the edge to the surrounding neighbourhood, whilst allowing visual connections from. The contemporary building mass forms the perimeter to the proportionately scaled open air courtyards where student discussion is promoted.

Relevance

Site constraints and contextual relationships

Although the programme varies considerably to the proposed development contained within this dissertation the restrictions of site are of a similar nature. The Law Building challenges the issues of access, campus integration and hierarchy of space. Examples being:

- The north-south pedestrian avenue previously terminated without purpose, this informed the design as to where the most appropriate entrance to the intervention was.
- Vertical implementation of the programmes required various design responses; this was addressed by placing the majority of student related and public activities on the ground floor allowing the upper floors to cater for the more private functions.
- The Pretoria modern regional vernacular is perhaps best demonstrated within the built environment of the University of Pretoria; as such the building embraces this heritage by using elements such as floating roofs, pilotis, glass facades, and unfinished concrete.



Fig. 6.26: South eastern building mass



Fig. 6.27: Triple volume allows light penetration



Fig. 6.28: Concept of transparency on southern façade

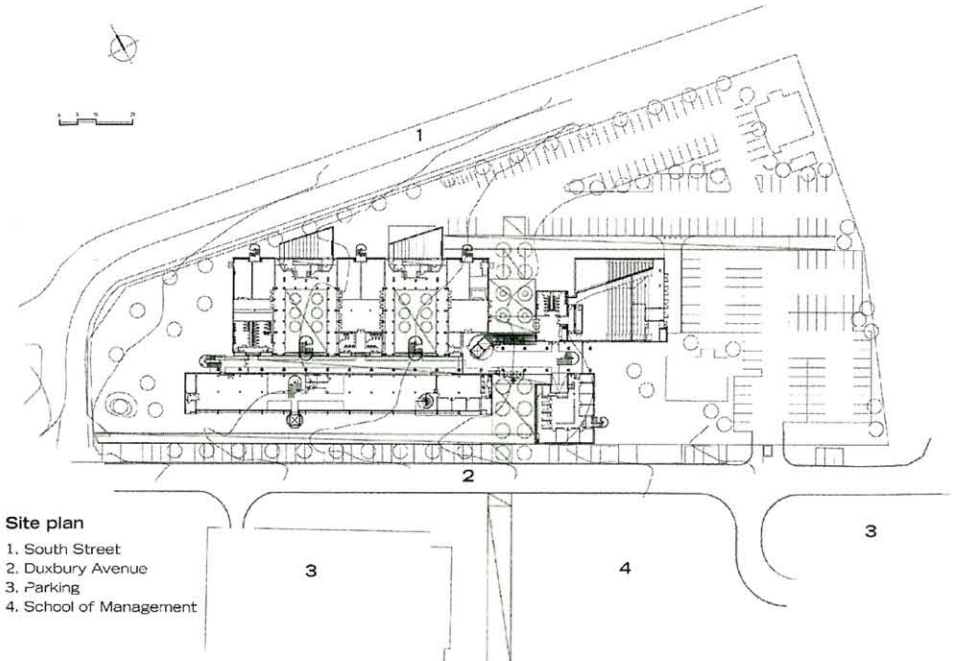


Fig. 6.29: Building placement along primary pedestrian axis



Fig. 6.30: Northern elevation

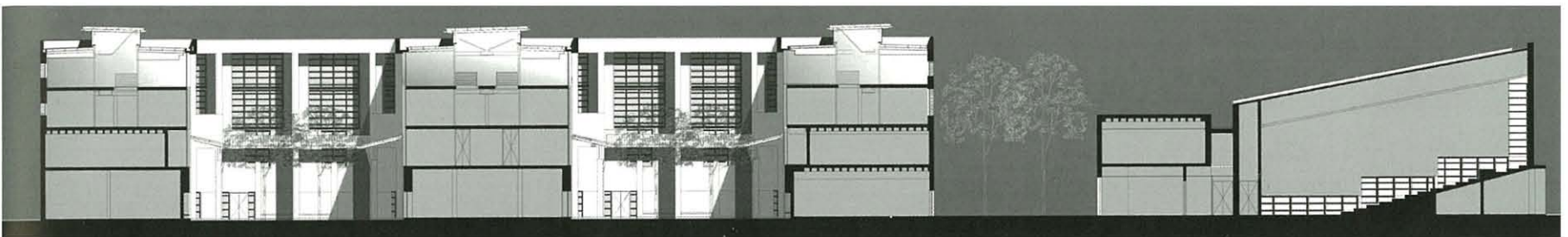


Fig. 6.31: Sectional elevation showing relationship between building and courtyard

6.1.6 Precedent 6

The Kerzner Building School of Tourism and Hospitality, University of Johannesburg

In order to fully understand the extent of the programme as well as the physical plant in relation to the activities offered, The author found it necessary to visit the Sol Kerzner School of Hospitality. The Kerzner School has the capacity to teach between 600-800 students of both Tourism and Hospitality programmes; however due to the specialist equipment and spatial relationships needed to operate the proposed development contained in this thesis attention will only be placed on the hospitality requirements of the programme.

It became clear from the outset of the exploration of the building that adaptive qualities of space were of vital importance. Commercial activities such as conferences and business lunches take place within public spaces as well as programme specific venues such as lecture halls and auditoria, however in the event of corporate functions being hosted in the dining areas the spatial requirements must be accommodated for. This is achieved through an extensive open plan front of house area.

In terms of back of house operations and requirements, the planning strategy is similar in nature to that of a large food distribution centre or retail store. The arrangement of space is linearly organised along a central service corridor from which all supportive functions branch off. The goods are received and follow this spine to their eventual destination.

Of particular importance was the fact that although the kitchens and related functions seemed to work well, management of the entire process, from goods receiving to guest service is what keeps the entire school functioning as a unit. As part of the experiential learning set out by the curriculum, the students are separated into workable groups which are assigned a task leader. This process is then repeated with responsibilities rotating so as to afford all students the opportunities of learning through the process of task accomplishment.

Although the aim of this thesis is about an architectural event, the management and control over every aspect of the day to day business of the school is critically important and must be taken into consideration.

Relevance

Understanding

The functional operations employed by the Kerzner Building are an essential component of the proposal contained in this thesis. Valuable knowledge was gained by experiencing the programme and management of such a curriculum as well as the relationship between the various functions and their spatial requirements.

Importance of Industry links

Partnerships with the private sectors are crucial aspects to consider, as the relationships fostered grow and support each other. The affiliation between the industry leaders and skills developer are of an interdependent nature.

The hospitality sector receives a continuous flow of skilled human resource and in return the school receives either funding, product support, strengthening development through sponsorships/grants or additional support concerning training and skills development.

“I have often said a country is only as promising as the future of its youth. The new School of Tourism and Hospitality will not only contribute to the future of our youth, but also ensure that our youth become experts at showing off our beautiful country. This initiative will undoubtedly ensure even more jobs for our people and the partnership with the Kerznors and industry will help our youth to acquire the best skills in this industry to compete on the international stage.”

Nelson Mandela 2006



Fig. 6.32: Interior views of restaurant and lounge



Fig. 6.33: Shared workstation for cookery students



Fig. 6.36: Approach to the main entrance of the Kerzner Building



Fig. 6.34: Skills Kitchen for practical/experiential learning



Fig. 6.37: Interior and exterior of the dining area



Fig. 6.35: Lecture facilities for theory based learning



Fig. 6.38: interior of the Private Cigar Lounge



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Chapter 7 _Building Design Development

7.1 Introduction

The Hotel School inclusive of all the supporting facilities requires the reprogramming of the site as an all-encompassing entity. The hospitality and tourism programmes have been identified as having great potential in uplifting and unifying the community as mentioned before. The urban design strategy informs the design development to a point; thereafter the potential of the physical development is explored in order to unite the peripheral site with the existing Campus framework. Focus now shifts to the implementation of the education and hospitality programmes within the ideals of the urban strategy with the intention of site reintegration.

7.2 Spatial properties

The spatial enclosure of the development has the potential to influence the interaction between the individual or various groups. The importance of space is associated with the requirement of privacy and territoriality, where it functions as buffer that provides physical and psychological protection against intruders. Enclosure without immediate visual freedom or access to open space constricts community or individual interaction. Norberg-Schultz (1980) suggests that space enclosure is the first real attempt of people to possess the environment, and its typical dimension and form varies from culture to culture.

Inside/outside

Changing space into place is a process of qualification and differentiation. Differentiation is the process of defining place, which is achieved through the use of fixed or semi-fixed elements that penetrate the building.

Qualification is the assignment of the level of involvement with regards to man's activities, or the programme. Through the process of demarcating and differentiating place, the user is able to establish a connection with the space. The phenomenological dimension of the place is therefore a practice of setting up the inside/outside which results in qualities such as territoriality, identity and privacy.

Application

For the purpose of this dissertation two systems of spatial appropriation will be explored namely space defining and space enclosure systems. The reason for considering the two systems only, is as a result of the programme nature.

The two systems are expressed architecturally through the structure, form, openings and organizational structure of the various programmes.

Due to the unorthodox placement of the building in terms the building acting as boundary, particular attention must be placed on security, as well as the private and public functions communicating correctly to the user. The inclusive quality of the building is not affected by the structural placement or systems, which will inform the user of the choices that are available throughout the development. The development has two entrances that face the public, both of which are on Duxbury Street. The Hotel foyer has a dual function in that it guides the guest and adds the necessary measures of security by controlling and directing circulation.

Safety measures consist of personnel at the reception desk of the hotel, and restaurant, while further unauthorised admittance restricting elements such as electronic access control points provide additional security to the School and the premises of the University.

Defined space.

The defined space primarily consists of public space that is permeable in nature and that offer the widest range of choice and adaptive qualities.

Enclosed space.

The space enclosure of the development is defined by the space establishing elements and fabric. The majority of enclosed space consists of the services or supportive facilities of the core processes. It also occurs where the user requires more private space and where access to the development is controlled to ensure safety.

These two systems of spatial definitions are further represented by a framework of functional assumptions:

- Privacy is an important concept for the spatial and social behaviour of the user.
- Spatial definition is impacted on by territorial requirements of the user. This refers to the control of spatial boundaries in order to claim and defend space.
- Territoriality is a mechanism for satisfying privacy needs and the desired levels of interaction.

The system of spatial enclosure is hierarchically ordered, guiding the process of spatial organisation vertically from the public to private realm.

7.3 Building Skin

In any human settlement the intention of architecture is driven by two fundamental aims: The wish to create platforms or make better use of land, and in the varying climates of the world, to provide shelter. These two generative forces guide the act of building, which constitute the basis of the form making process, and the essential requirements for performance.

Consider for a moment the earliest form of shelter by our country's indigenous people. The Khoikhoi hunter-gatherer transportable mat domes to the cone on cylinder clay and thatch dwelling of the Tswana people were primitive, yet simple and elegant forms of shelter.

Their dwelling was a holistic and simple response to the particular needs at a point in time. Through its fusion of structure and envelope it provides a design response to the exigencies of climate as well as socio-economic identity.

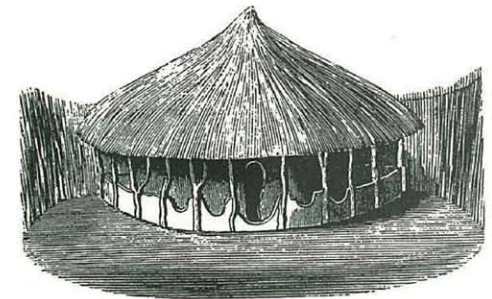
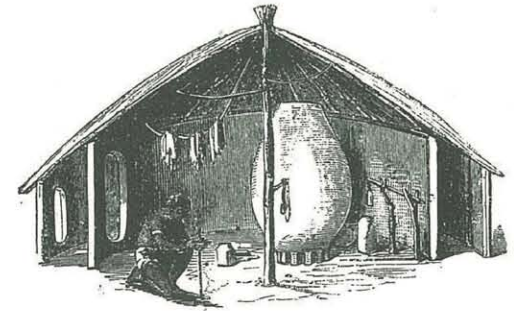


Fig. 7.3: Typical Khoikhoi dwelling enclosure

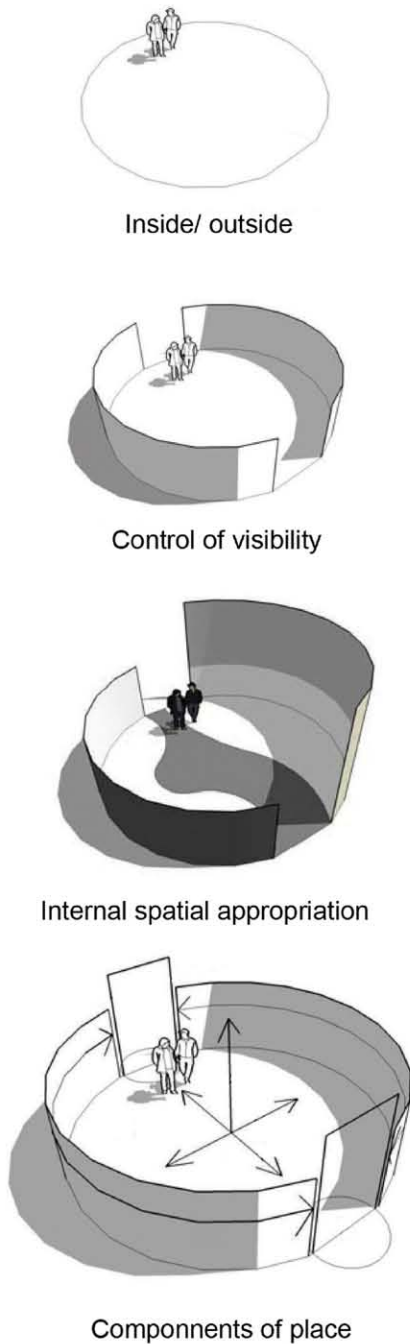


Fig. 7.1: Exploring spatial properties

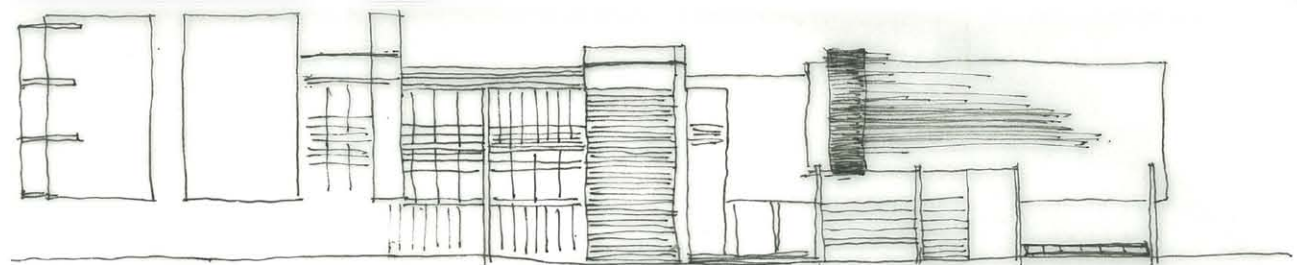


Fig. 7.2: Conceptual façade treatment

7.4 Identity of the intervention

A building which offers a positive experience to the users of a building and community alike draws identity from its programme as well as the setting in which the project is located. The preceding section revealed that public acceptance and use would be more readily achieved if the relationship between user, physical plant and contextual setting are complimentary. The intention with regards to the proposal will be to establish an identity which is inherent to the City of Pretoria.

Pretoria Regionalism

Regionalist architecture is a design response which is generated by site or 'place' specific conditions such as climate, materials, defence, economics, religion and culture. The Pretoria Regionalism is known more specifically as the Third Vernacular as it matured beyond the previous two vernaculars which were the Cape Dutch of the 18th century and the Georgian of the early 19th century. This vernacular is a modified design response of the modern movement that takes into account an economic approach to nature and landscape using natural and industrially produced building materials that are empirically responsive to climate. (Fisher, 1998)

The pioneers of the local vernacular were the Transvaal group, of which Norman Eaton was the most representative of Pretoria Regionalism. Characteristic elements used by the Third Vernacular protagonists were traditional plan forms, extensive use of brick, low pitched corrugated iron roofs, verandas and sun shy windows, as well as sensitivity to landscape and climatic conditions.

In terms of material use the emphasis was placed on the use of local materials, with the Kirkness brick being material of choice due to its implicit honesty. The Dutch and German influences were particularly important as the socialist and communist allies introduced to the local vernacular new uses of materials such as steel, glass and concrete by architects such as Le Corbusier, Dudok and Mendelsohn. Although the use of brick had been readily exploited, the industrial revolution brought about the local production of concrete, steel and glass with revolutionary new modern applications that challenged the Pretoria Regionalists.

The flat concrete roof of the International Style proved to be more innovative than the low pitched corrugated iron roofs, however the tin roof was more cost effective, resulting in the two materials being used in conjunction. Due to the activity of farming the Afrikaner had a strong connection or genius loci through the soil that they used for agriculture, this dependence strengthened their sense of dwelling and of place within the environment, which is further defined by Heidegger's concept of "wohnen". (Fisher, 1998)



Fig. 7.4: Extensive use of concrete

7.5 Architectural response

The intention of the development is to introduce elements that are representative of the Pretoria vernacular. A strong and well established modern movement within Pretoria has an influence on the building, however it is not to be regarded as a modernist building.

Elements used in the development are the extensive use of concrete roofs, with cantilevers and fins on a grid protecting the openings. Particular attention is placed on the use of floor to ceiling glazing, which allows visual commutation by user and passers-by. This is particularly evident at the corners, where visual emphasis is placed on the ideal of openness and welcoming. Within the Campus context the staircases are treated as separate elements, unifying the spaces and acting as viewing platform.

The auditorium too is articulated as a separate entity, giving the development an identity within the University. This is a regular feature of institutional buildings within Pretoria, as can be seen on the Aula at University, and is reflective of the Brazilian influence on local architecture.





Fig. 7.5: The Aula and College of Nursing—the freestanding auditorium

7.6 Application Enclosure

The building skin becomes the place where the interior space meets the exterior, it constitutes the boundary between the internal environment and the climate outside. It will define the function of the building and provide privacy, security and views while simultaneously assisting the formation of exterior space, as it defines the streetscape of both Duxbury and Herold Streets.

Layering of the façade is achieved on both the vertical and horizontal plains. The effect of layering will be created through the degree to which space is enclosed, and as such will be determined by the configuration of its defining elements such as openings and rhythm.

The initial concept of the hotel school is to discover and celebrate the functions inherent with such a programme. The building is thus conceived around the event of hospitality, particularly the process of cookery. By allowing the user or passerby visual connection through the building skin to the event from the street or restaurant area, the building becomes an event space or active platform. It displays it's own function, allowing observation and the opportunity to take part in the functions of the programme, ultimately exposing individuals to chance encounters.

The hotel suites are completely glazed to either the north or south, however layering of the skin through depth and additional moveable elements the balcony area becomes a semi public viewing platform where the guest may take part in the street activities and vice versa.

Instead of merely enclosing space within as an envelope, the space must be formed to exploit the capacity as interfaces shared by, and therefore defined by the interaction between adjoining spaces. The building enclosure therefore has the capacity to integrate, as well as divide the space and acts as the limit that separates and indicates the relationship between two spaces-between here and there, private and public.

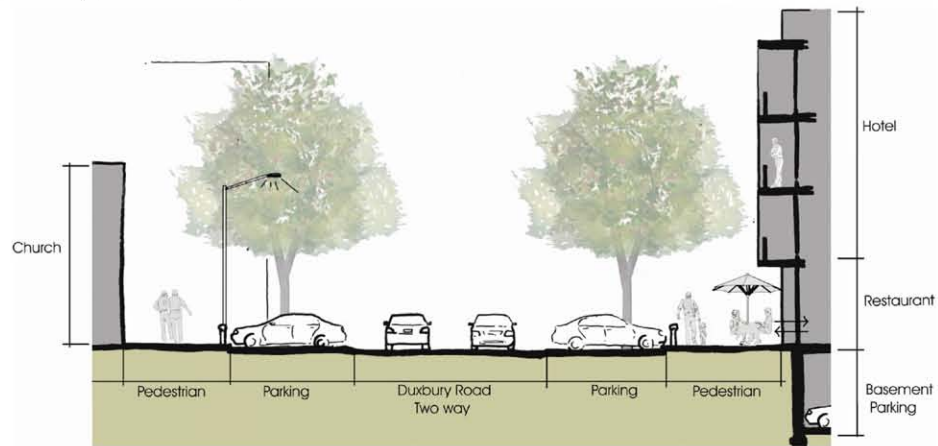


Fig. 7.6: Section through Duxbury Street illustrating proposed street character

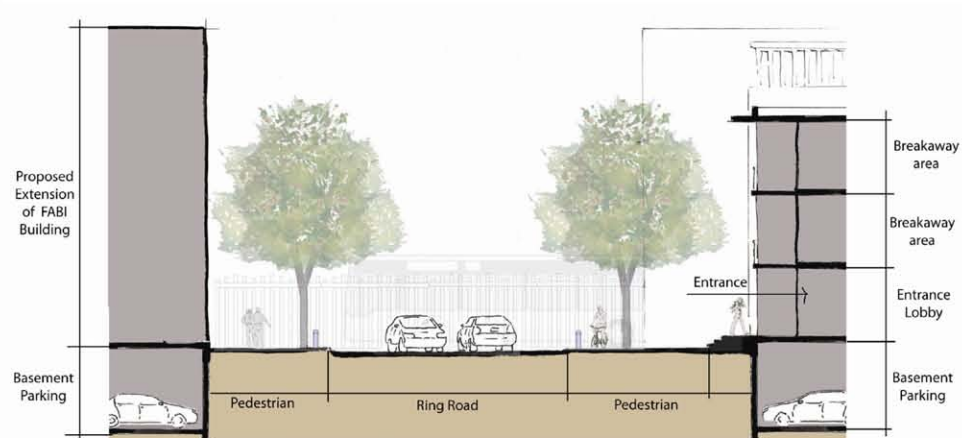


Fig. 7.7: Section through Ring Road illustrating proposed street character on Campus

Threshold

The threshold or building edge is an integral aspect of the development in the sense that it must not be clear where the inside begins and outside ends. The building edge on Duxbury Street belongs to both the proposal and to the sidewalk, it therefore becomes a collective/individual or public/private domain where the intimacy of the restaurant is also outdoors, part of the street and conducive to neighbourly congregation. It thus becomes an interspace of sorts. The courtyard area although semi public in nature allows visual freedom and thus is accessible from the street outside and could be used to draw the public into the development.

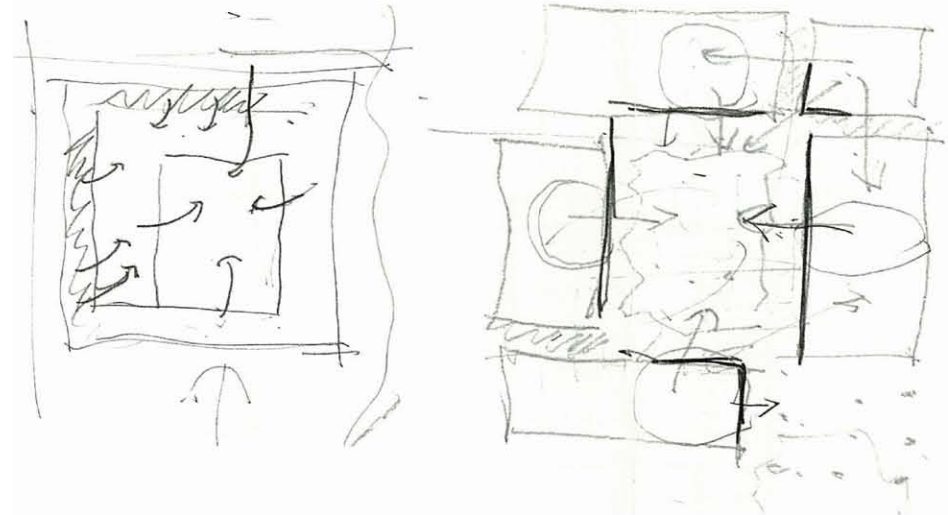


Fig. 7.9: Exploring thresholds and the relationship between mass and void

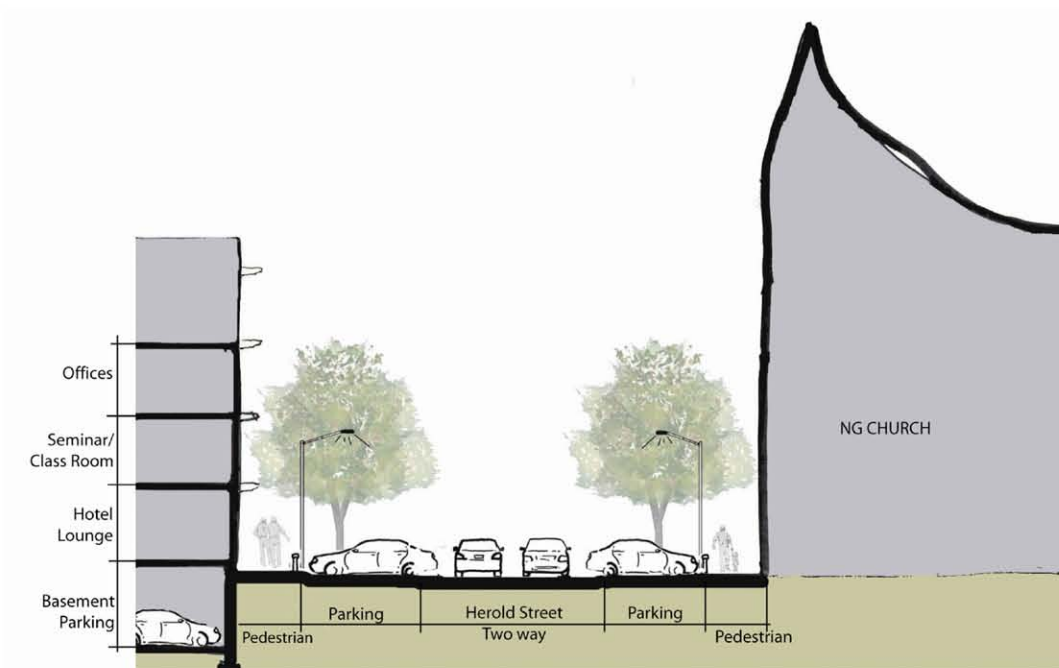


Fig. 7.8: Section through Herold Street illustrating proposed street character

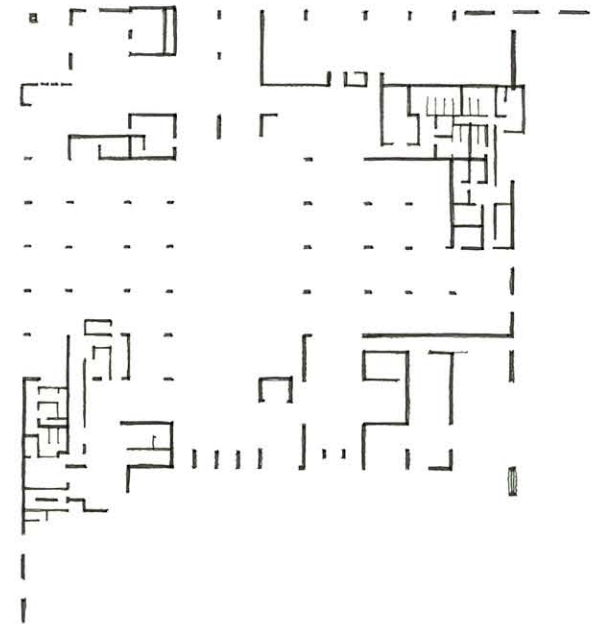


Fig. 7.10: Space defining elements

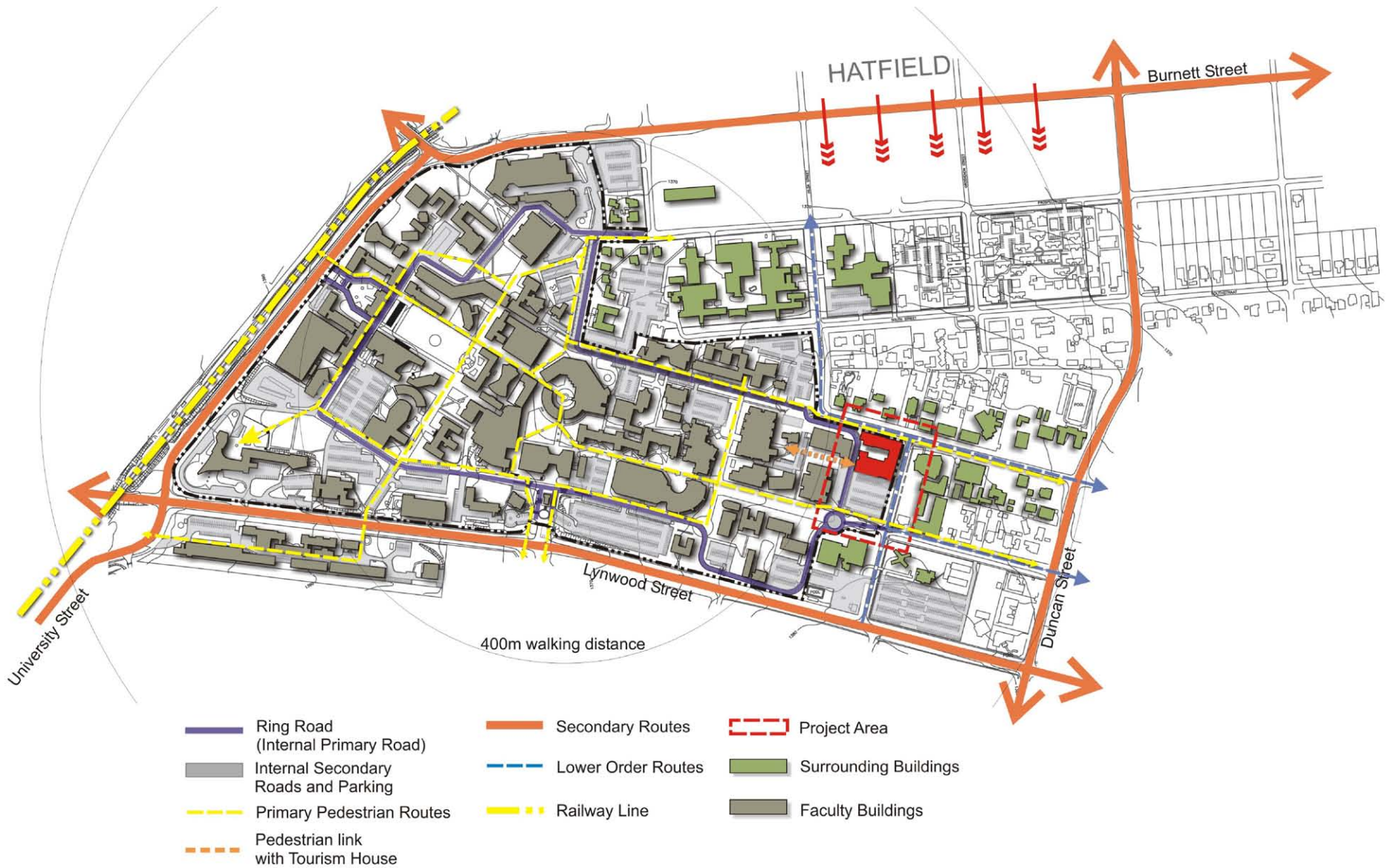


Fig. 7.11: Proposed site forces and movement after intervention (Refer to Fig.5.14)

7.7 Design Influences and site forces

Hospitality programme as generator

The Oxford dictionary refers to hospitality as the friendly and generous reception and entertainment of guests or strangers. As such the intention of the proposal is to establish an environment that is representative of such an ideal.

In order to achieve the ideals of the development acting as a hospitable place it is essential to acknowledge that the design response to programme will effect user perception.

Integration

The project achieves the integration process through:

- Defining an urban edge, thus strengthening and defining the eastern portion of Campus.
- Restructuring of open space through consolidation of place making.
- The building focuses on the user.

East-west axis

The design approach from the outset was to respect the existing street grid as this would allow for a design that would relate to the surrounding environment. As stated previously the building has been placed a slight distance away from the Erf boundary in order to accommodate the pedestrian movement. However, the proposed new extension of the FABI building, although not built, does effect the placement of the proposal. As a result, the placement of the proposal is reflective of the FABI buildings sub-structural basement system.

Views

The site has potential views at higher levels that extend to the north, towards the Hatfield Business District as well as perspectives over the Campus towards the west.

Attention to detail

The building function necessitates a high degree of quality with regards to the finishing details and material use. The building will inform the users perception of place, it is therefore essential that the building convey a noble and honest approach towards materiality. This approach will ensure that the intervention impacts positively towards the guest and context, providing a sense of identity for both.

Services

Due to the highly perishable nature of goods received it becomes necessary to place delivery points as close to the areas of preparation. The cold chain of the perishables must be maintained throughout the delivery process in order to extend the lifespan of the product. The events of the building focus on food preparation, with the deliveries occurring below ground level for the main kitchen, and on the south side of the development for the skills kitchen of the School.

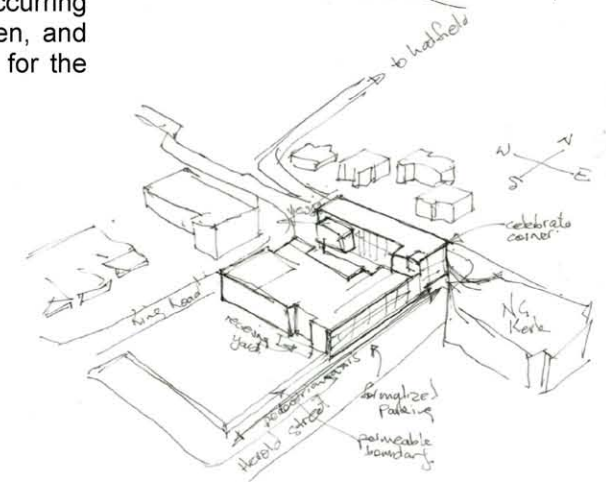
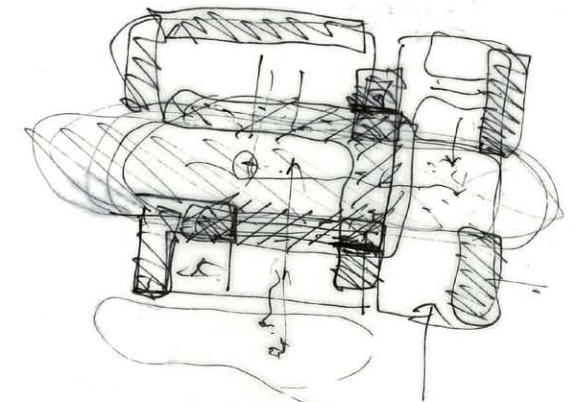
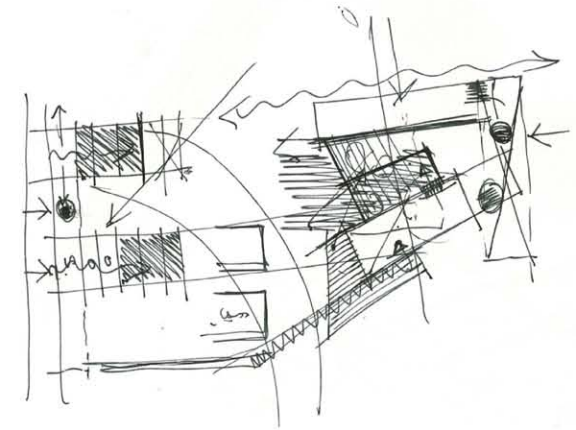


Fig. 7.12: Exploring potential service areas and their relationship to areas served

7.8 Spatial organisation

The development is organised around the event of hospitality, however the variation of function and spatial connections must inform the user of the range of access that is permissible.

Three primary uses:

- Education and supporting facilities.
- Hotel and restaurant facilities.
- Conference/seminar rooms and the hosting of functions inclusive of supporting facilities.

Three primary users

- Students and staff
- Hotel and conference guests
- The general public

Due to the three main uses and users of the building the following considerations need to be explored.

- **To allow and restrict movement through the building.**

Permeability, hierarchy of space and zones of transition enable the user to understand the levels of access permitted.

- **To allow a range of users to utilize the facilities.**

Guests and public will utilize specific facilities, however portions of the building will not be accessible. Grouping of suitable functions will accommodate the user achieving maximum choice.

- **Make provision for utilization of functions at different times of day**

Building users vary according to different times throughout the day. The Hotel guests will be using the facility mainly during the evening, whereas students will use the building mainly during the day. The general public will use the building throughout the day (Appendix 2).

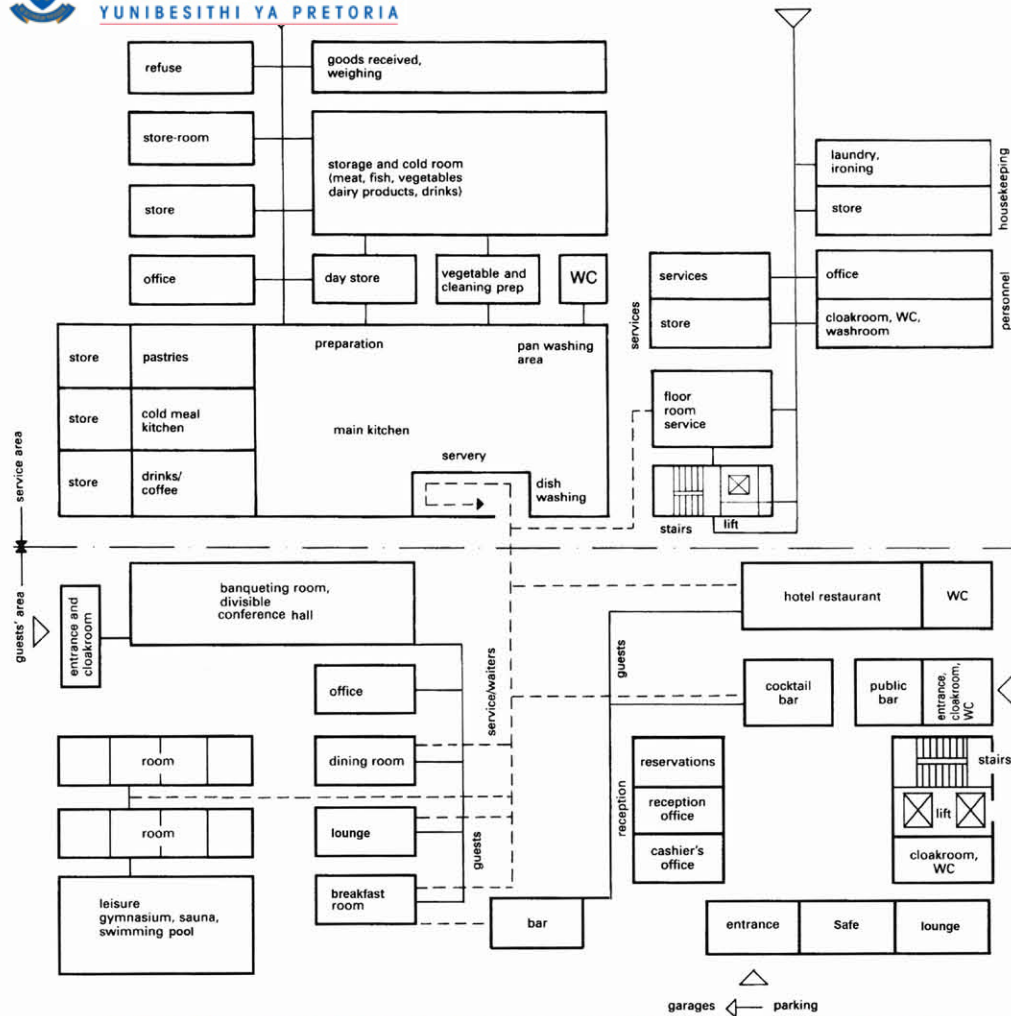


Fig. 7.13: Diagrammatic relationship of function and spatial planning within the Hospitality programme

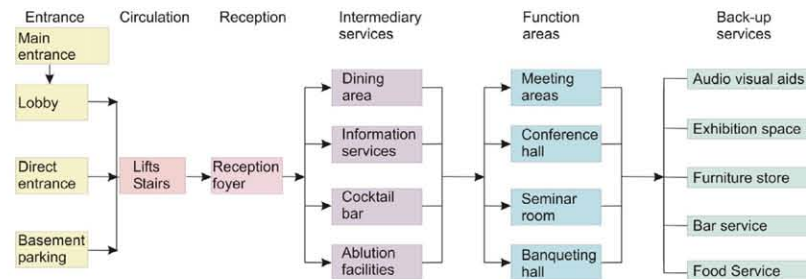


Fig. 7.14: Diagrammatic spatial relationship of public areas

7.9 Building users

Public

Public access within the building will be limited to the use of the restaurant dining areas located on both ground floor as well as the first floor balcony overlooking the courtyard.

Hotel and Conference guests- semi public

Guests at the Hotel will have the opportunity of being able to explore more of the building. The strategic placement of electronic control points will be necessary to control access to student facilities.

Hotel Management and Professional Cookery students - private

The programme caters for the student learning about hotel management and professional cookery. The student will have complete access to the building, as it will be part of the curriculum to have experiential training. In this instance the students are allocated particular tasks and they are therefore responsible for the organising of events as well as the guests' general wellbeing.

Public, private and service components

The three building components are planned around a courtyard area which acts as common link between the public and private functions. The services which support the Restaurant Kitchen are below ground and out of view to the visitor, whereas the receiving area for the Skills Kitchen is located at the south of the Building.

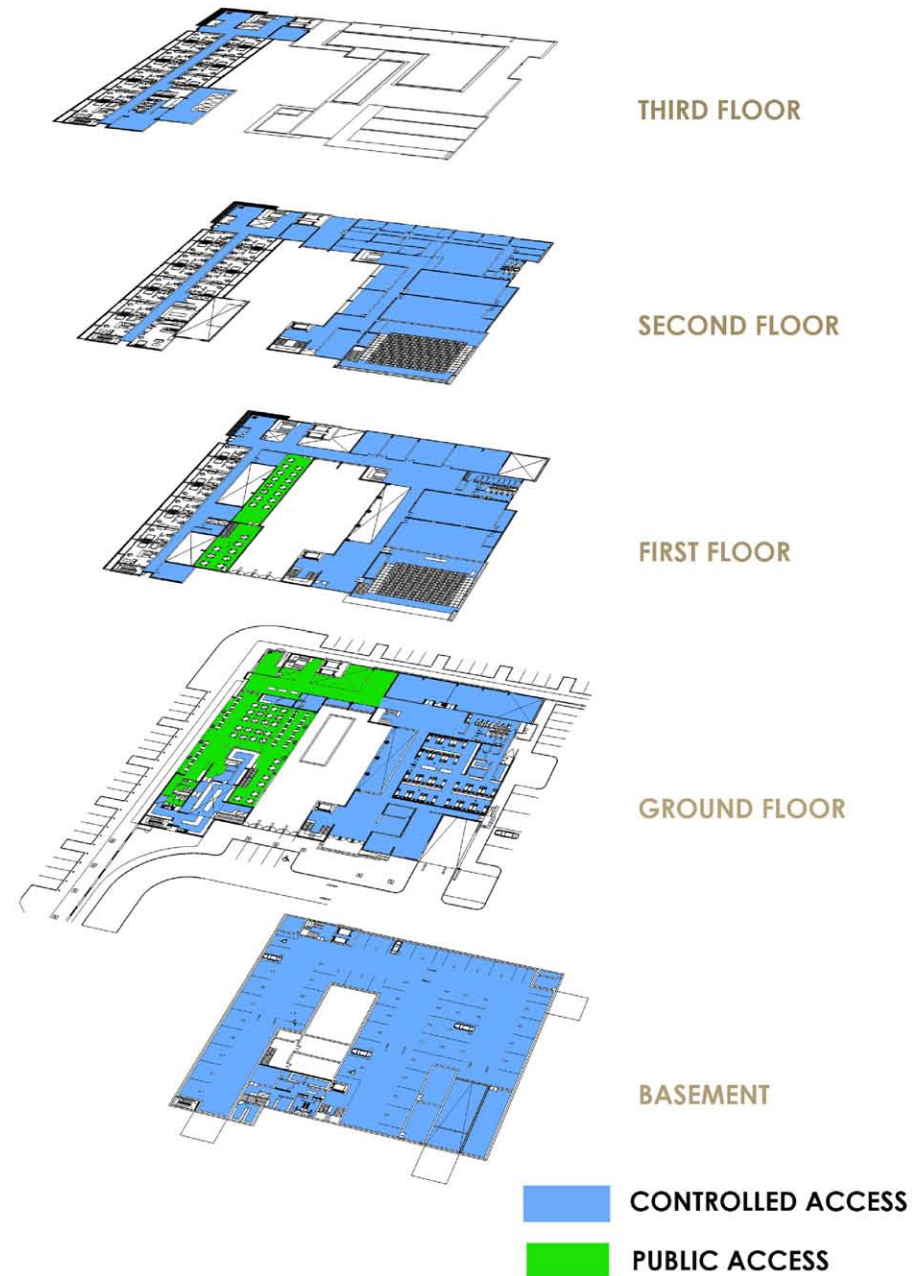


Fig. 7.15: Spatial diagram indicating controlled access and public areas

7.10 Programme Restaurant

The restaurant is placed along Duxbury Street sidewalk as this route accommodates the majority of pedestrian and vehicular traffic past the site. It has been placed centrally so as to respond to the courtyard and allow public users to be drawn through into the open court. In the event that a function requires additional space, the courtyard acts as outside dining with the skills kitchen acting as support to the main kitchen. Final year students are responsible for the majority of operations occurring in the restaurant. This forms part of the curriculum as experiential training which ranges from cookery to business management.

The restaurant is serviced from the basement below where the staff facilities are situated.

Supporting operations functions:

- Staff/student shower and change rooms.
- Receiving area and goods storage.
- Laundry.
- Offices chef and receiving-back of house.
- Floor manager office and cash up area-front of house.

Supporting dining functions:

- Guest restrooms.
- Wine cellar and private dining below.
- Upper floor dining and balcony overlooking the Campus.

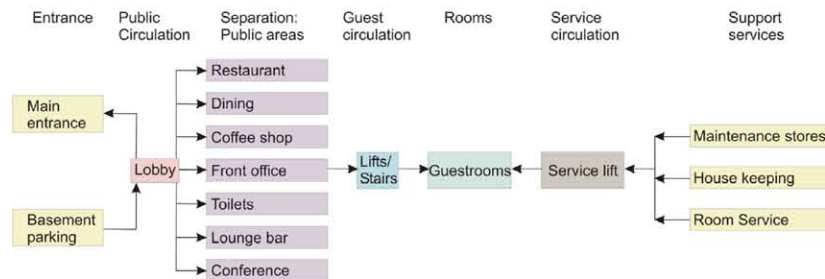


Fig. 7.16: Diagram indicating connections and circulation

Hotel

Hotel suites are either north or south facing. The majority are oriented towards the north for maximum northern exposure. All suites are fully glazed on one side, however sliding wooden doors provide privacy as and when necessary.

The hotel, being a four star rating requires an eighteen hour per day room service, thus all hotel suites are serviced via a dumb waiter that is centrally located on each floor.

Supporting operation functions:

- Reception.
- Administration office.
- Room service and storage.
- Laundry and linen store.

Supporting guest functions:

- Breakfast room on each floor.
- Social lounge on each floor.
- Conference and seminar rooms.
- Gym on third floor.
- Sauna on third floor.
- Exclusive pool and bar area on third floor.
- Courtyard.

Conference and seminar rooms

These facilities are located on the ground and first floors of the eastern wing of the development. These facilities provide a link between the School and Hotel functions as the areas will be used by both. The seminar rooms will be hired out to the corporate community, as well as providing for additional lecture rooms for students of the Tourism House.

These facilities will be serviced by either the skills kitchen of the school or the restaurant. The auditorium will be used by any group large enough to warrant the use of the facility.

Supporting operation functions:

- Restrooms.
- Breakaway areas.
- Snack areas.
- Lounge.
- Furniture store.
- Courtyard.

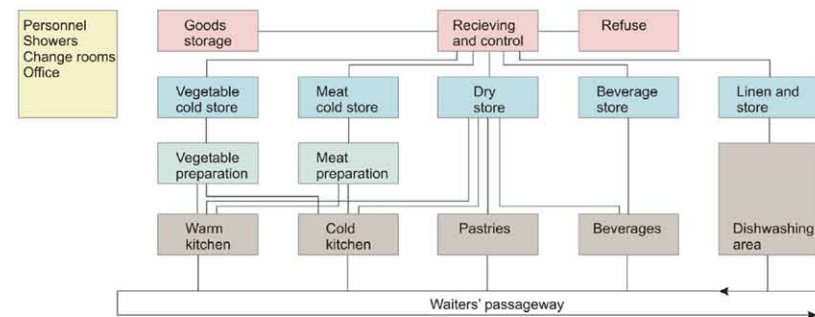


Fig. 7.17: Diagram indicating circulation and function connections of Restaurant

School

Placement of the school is set well into the interior of the site. This response affords the student a better learning environment as there is less interference from the happenings of the street.

Students and staff of the school have unrestricted access to all the functions. The Hotel and Restaurant facilities provide senior students with experiential training. The school is the initial training facility and provides basic experiential training and theoretical knowledge to all students.

Supporting operation functions:

- Reception.
- Reading room and library.
- Skills Kitchens, including lecture/chef office.
- Receiving area and goods storage.
- Separate Skills kitchen restrooms.
- Guest and student restrooms.
- Staff offices and meeting room.
- Gallery area. This area could act as display or examination area.
- Auditorium.
- Classrooms/seminar rooms.
- Computer room.
- Storage.

Supporting student/staff functions:

- Breakaway areas.
- Server room.
- Waiting area/lounge.
- Courtyard area.

USE

- Hotel Suites
- Offices
- Social Space
- Conference Facilities
- Classrooms
- Vertical Circulation
- Dining
- Kitchen
- Storage
- Services
- Services & Storage
- Bathrooms

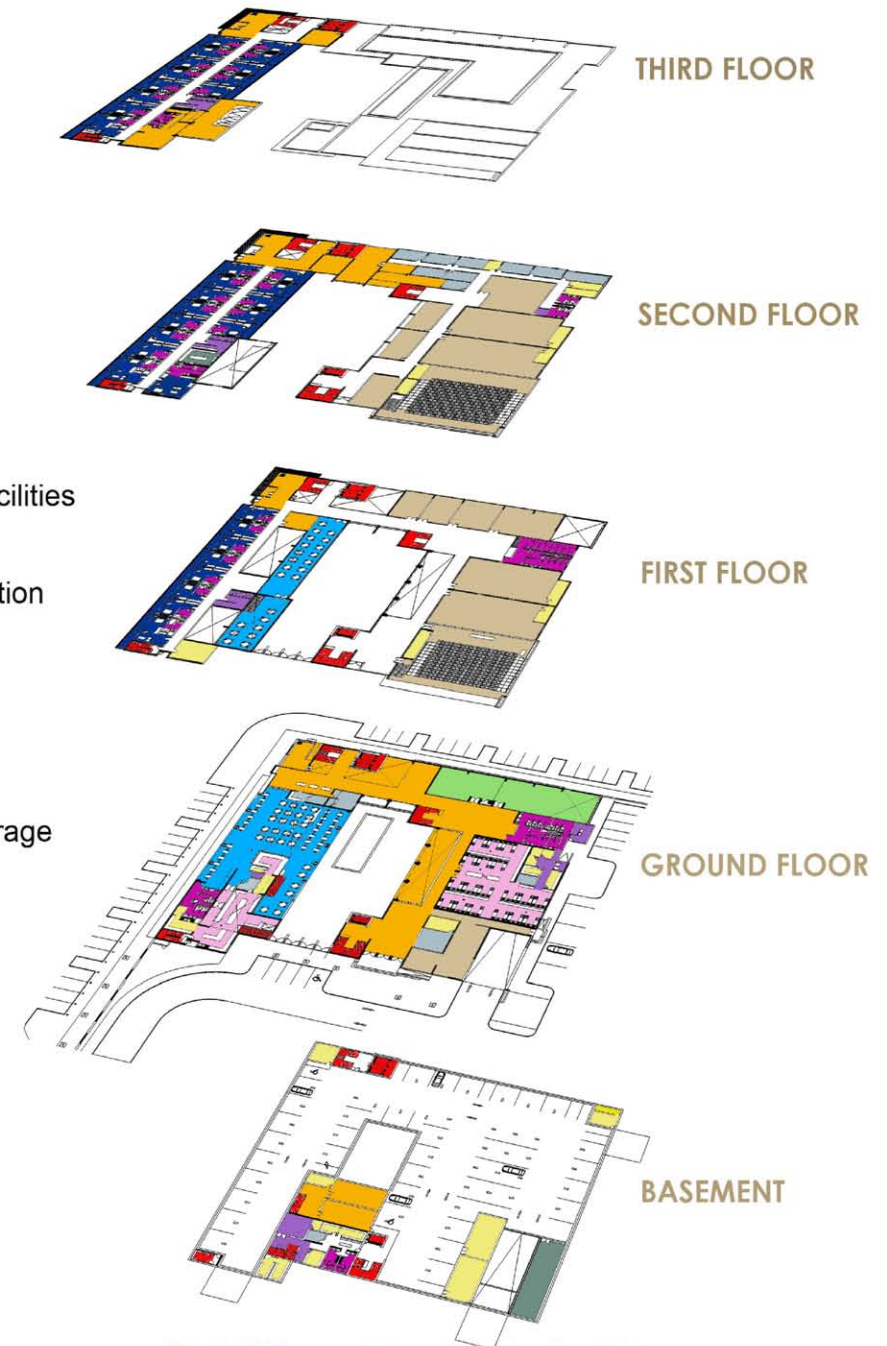


Fig. 7.18: Diagrammatic representation of spatial use

7.11 Circulation

The intention from the outset of the design process was to strengthen and reinforce the existing surrounding city fabric by drawing inspiration from the indigenous character of the neighbourhood. The site presents a wealth of potential however is terribly underutilized. At present the pedestrian movement around and through the site is accommodated for only by the sidewalks of Duxbury and Herold Streets. The Duxbury street sidewalk is the primary pedestrian axis of the site, it was for this reason that the public function is placed on it. The informal parking on the sidewalks presents a particular design challenge to the site, it was therefore appropriate to step the building edge further back to allow for better pedestrian movement.

The accommodation for the disabled user is one of the primary design objectives. The presence of lifts in both the School and Hotel wing ensures the accessibility for disabled users throughout the building, as well as providing the necessary ablution facilities.

Due to the site being located on the University, security is an essential design component. It is therefore necessary to plan the circulation routes with accessibility to the various spaces and their hierarchies in mind. The semi private or student circulation areas are dominant, where different levels of access are required. The public areas are concentrated around the Restaurant where the main circulation routes do not intrude and physical access is restricted. The possibility does exist to allow the general public into the courtyard area as an outdoor dining area.

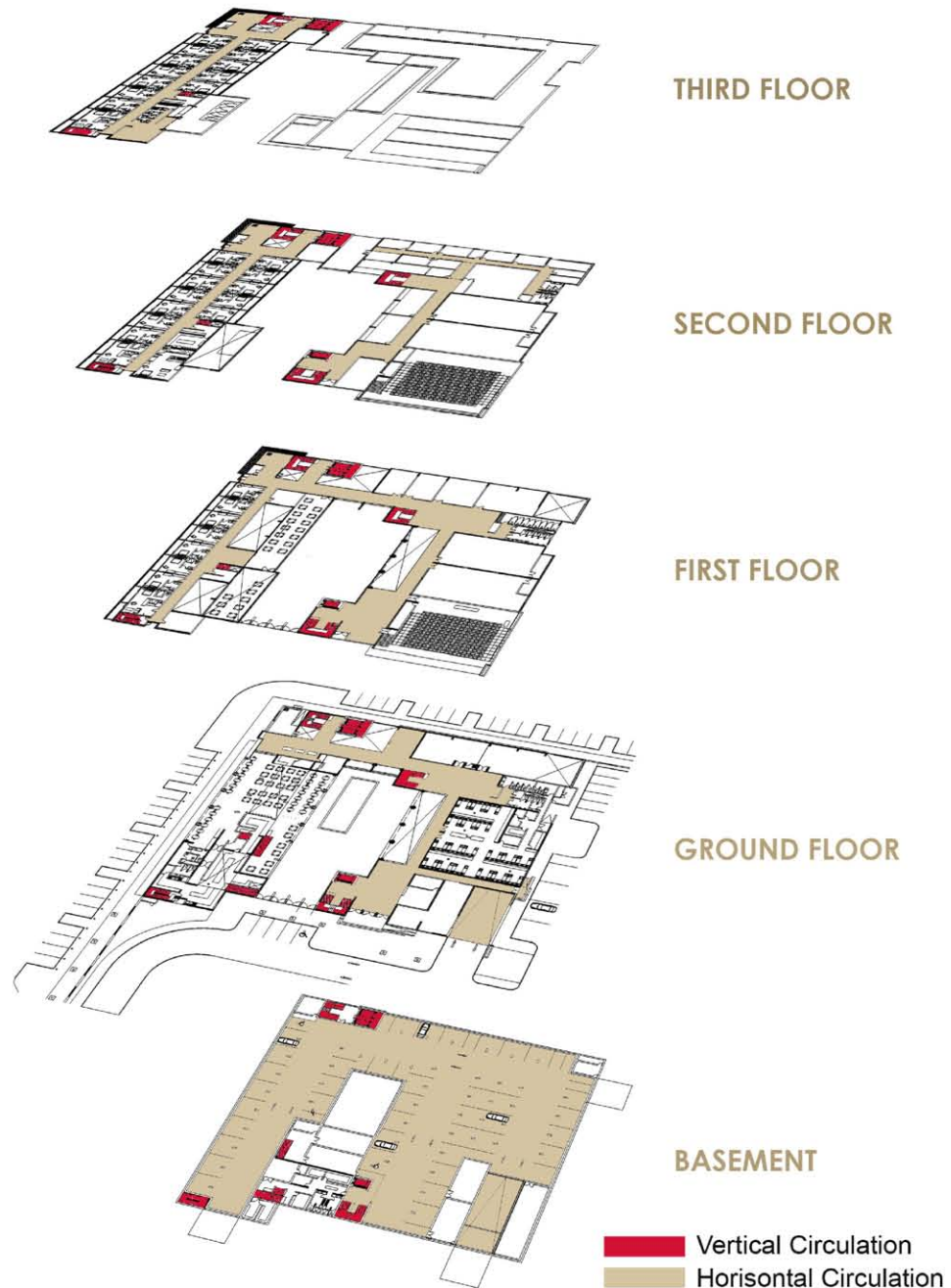


Fig. 7.19: Diagrammatic representation of circulation

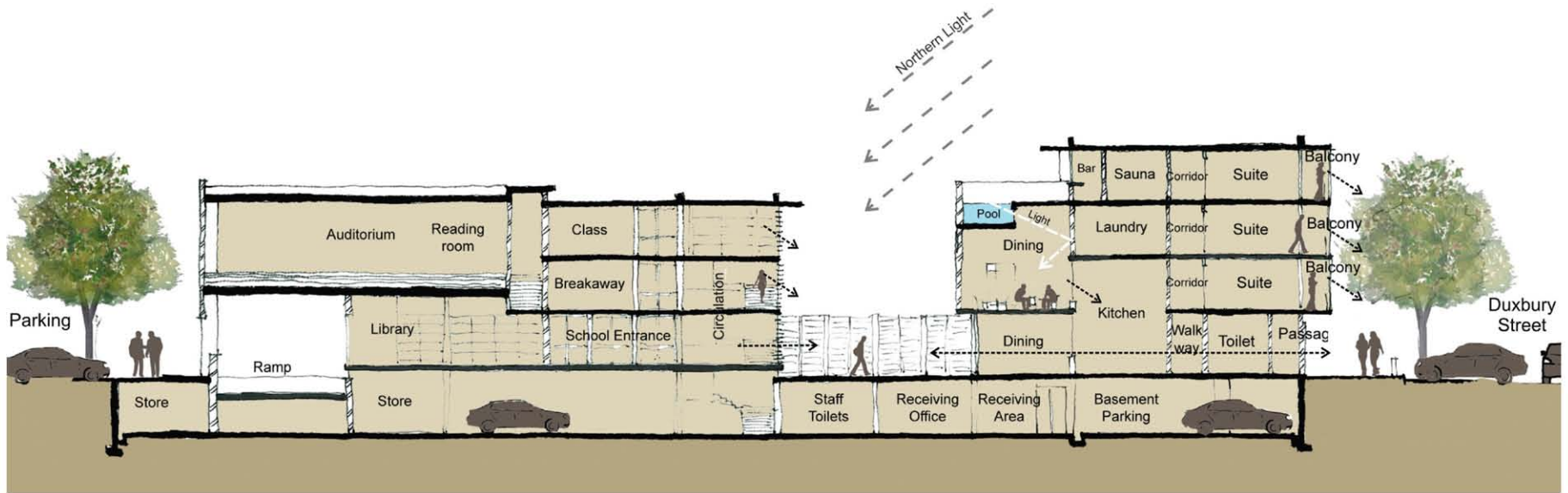


Fig. 7.20: Section looking westwards - exploring the building as viewing platform

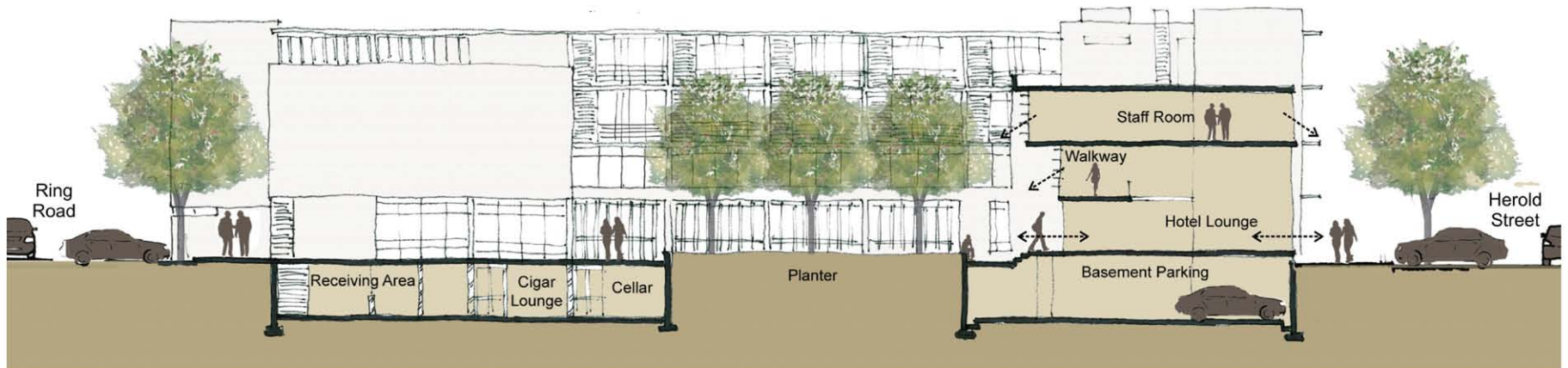


Fig. 7.21: Section looking northwards - exploring the building as viewing platform



Fig. 7.22: View towards south east showing public and private domain of intervention



Fig. 7.23: View towards south west showing corner of development



Fig. 7.24: Perspective view towards north east



Fig. 7.25: Perspective view towards south east



Fig. 7.26: Perspective view of courtyard area



Fig. 7.27: Perspective view of hotel component, looking towards south west



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Chapter 8 _Technical Investigation

8.1 Introduction

The issues of accommodating programme integration and public participation are at the core of the design process. These particular issues become progressively more complicated as building functions vary, as there are varying appropriate solutions to the contrasting building uses. As stated in the problem statements the proposal is to act as physical manifestation of reintegration, as apposed to the current alienated appearance of the University as institution.

8.2 Design Summary

The project is a multi functional building located on the University Main Campus, with its core activity being a School of Hospitality Management. The building consists of three wings, namely the Hotel to the north, the School to the south, with the binding wing being the administrative and conference facilities to the east.

The generator for the project is one of context, where the design intent is a process of overlapping the various contextual layers such as structure, spatial perception, function and access. The objective at completion is to produce a considerate and site specific project which offers flexibility through structure to its users whilst not compromising the integrity of Campus security.

The site is an underutilized land parcel as a result of its present use, which is used as student parking, however as stated in the contextual analysis there are provisional plans to accommodate the student parking at the corner of Herold and Lynwood Streets.

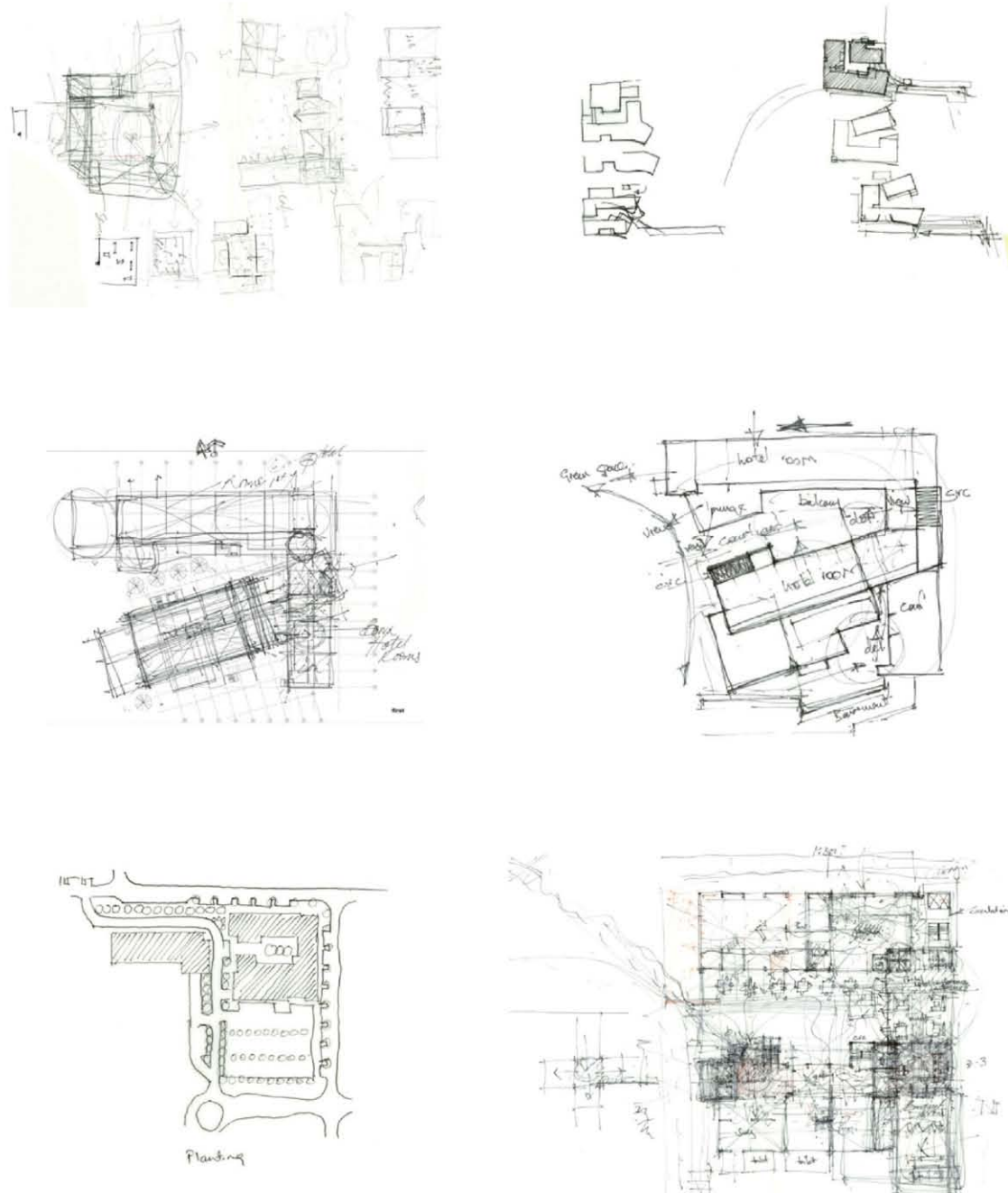


Fig. 8.1: Design Development

8.3 Structure

A concrete structure is selected due to economic factors, as well as being representative of the University and surrounding architecture. The material properties of concrete are further exploited through the versatility and plasticity of the medium. The concrete together with brick infill increases the building mass which has a positive effect in terms of robust design and passive climate systems as it reduces the amplitude of the heat gain cycle.

Concrete columns are used extensively throughout the building, with 110mm diameter rainwater down pipes cast into the bulk of those columns placed at the outermost fringe of the building. The grid spacing is 5.5m x 7.5m, which was decided upon as a result of the basement parking layout.

Through consultation with an engineer, it was decided to use 255mm deep reinforced concrete slabs with the exception being the balconies which would be stepped down to a depth of 170mm. All of the slabs will be cast in situ with reinforcement acting in two or more directions. The relatively short spanning distances allow more flexibility in terms of spatial configuration and future adaptability as well as eliminating the need for concrete beams.

An exposed structural steel frame is used at the main entrance of the School as well as the Hotel, with large glazed surfaces resulting in a more lightweight appearance to a building that has a predominantly bulky mass.

The vertical enclosure consists of glazing, face brick or concrete infill; however the design intention was to allow for passive surveillance and active interaction, which requires that the users and public alike could be participants of visual contact through the intervention. It is for this reason that the majority of non permeable vertical enclosure occurs on the more private elevations such as the western and southern facades, whereas the northern elevations have enclosures which are set back in order to allow an intermediate zone where the user experiences the manipulation of interior and exterior space.

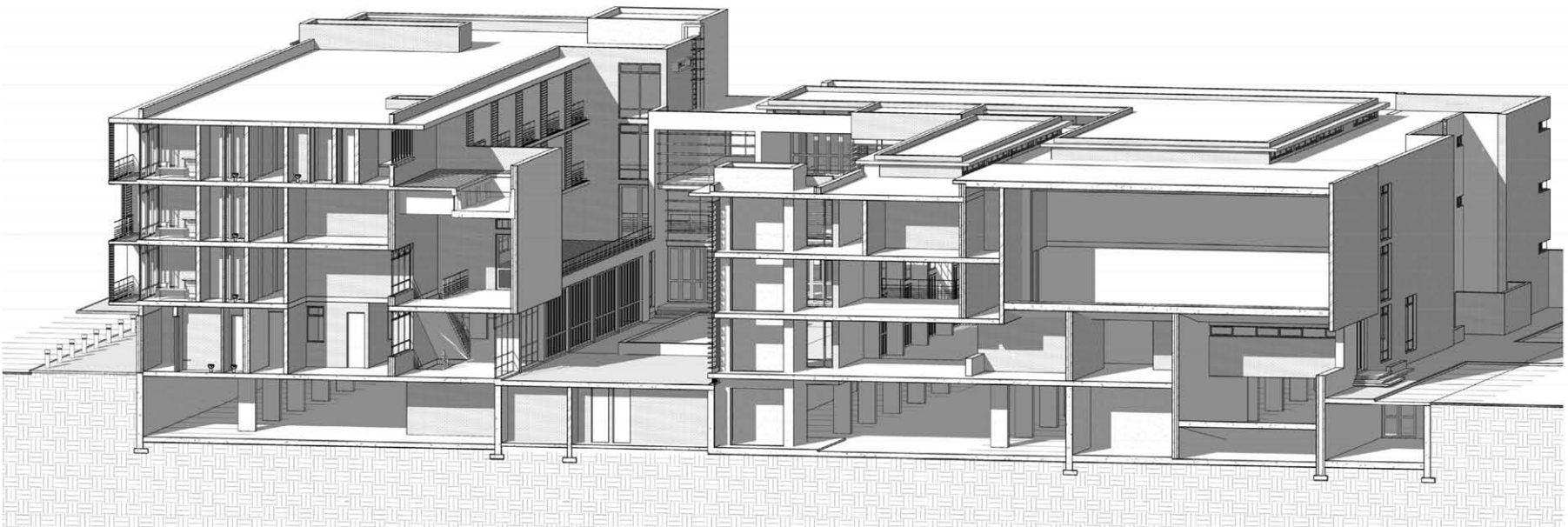


Fig. 8.2: Spatial and structural composition

8.4 Materials

The materials used in the construction of the building occur frequently within the context of the Pretoria vernacular. All of the chosen materials and labour will be sourced locally.

Reinforced concrete

The versatile nature of concrete makes it easy to mould and form. It is a stout and conventional building material in South Africa for which skilled workers are readily available. The medium offers considerable mass to a building which can be useful when generating a design that utilizes the passive climate systems, as it greatly reduces the amplitude of the heat gain cycle.

The structure is reinforced concrete, it is therefore essential that the exposed material be finished and shuttered at a high degree of quality. A variety of finishes are used throughout the building therefore reusable shuttering is to be thoroughly cleaned before reuse. Shuttering panels are to be steel plate or wood where complex forms are used, such as the auditorium and overhangs.

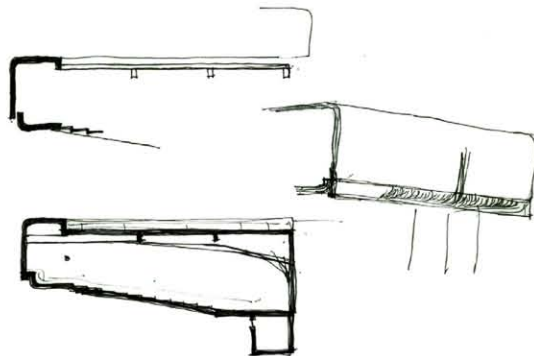


Fig. 8.3: Exploration of Auditorium form

Brick

The extensive use of red brick places the building firmly in its context, since these bricks are a commonplace within Pretoria, particularly with regards to the older buildings situated on Campus and surrounds. Although the face bricks are more costly than stock bricks the benefits outweigh the higher price in terms of lower maintenance, increased load bearing capacity, higher durability, thermal mass and its resistance to fire.

Glazing

Glass is used extensively to allow natural light into the building, exhibit its interior to the outside and to project through and onto the facades. The concept of merging public and private spaces provided the opportunity of using glazing to visually connect and optimise interaction between public and private domains.

Laminated glass is used throughout the building because of the inherent qualities of the medium. These include its strength and acoustic insulation properties which are used on the east and west facades as well as the thermal barriers which are used on the northern façade.

The concept of enabling interaction between building user and urban dweller is a primary design objective; this is achieved through the extensive use of floor to ceiling glazing, which allows ample natural light into the building.

The transparent nature of the material enables the ability to create layers within the city fabric, to exhibit the building interior, particularly the kitchens to the public and effectively merge the public and private spaces. Central to the concept of the design is the celebration of the kitchen. The use of glass on street level allows for full visual access through the building from the street into the School Skills Kitchen, whilst restricting physical access.



Fig. 8.4: Steel component and glazing at Hotel entrance

Timber

Aesthetically the material provides psychological warmth to the intervention however; due to the relatively high maintenance, regardless of treatment the use of wood is limited in the project. Treated Meranti hardwood has been used in the

construction of the horizontal external louvers within the courtyard since it is an abundant renewable resource and it offers a natural aesthetic to the users of the courtyard space. All wood that is exposed will be finished with 500 grit sand paper, stained and alkyd varnish applied in order to accentuate its natural grain.

Steel

The tensile and compressive properties of steel are essential in the building. Steel sections are used as structural members with exposed steel components being treated to prevent rust stain from occurring on the walls. All steel sections are to be painted. Most steel elements used are pre fabricated, therefore they must be pre painted with anti corrosive primer. After onsite assembly it is to be painted with enamel finishing.

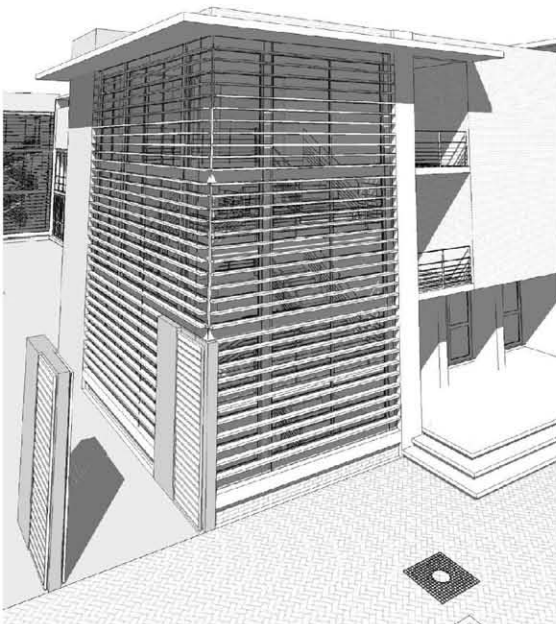
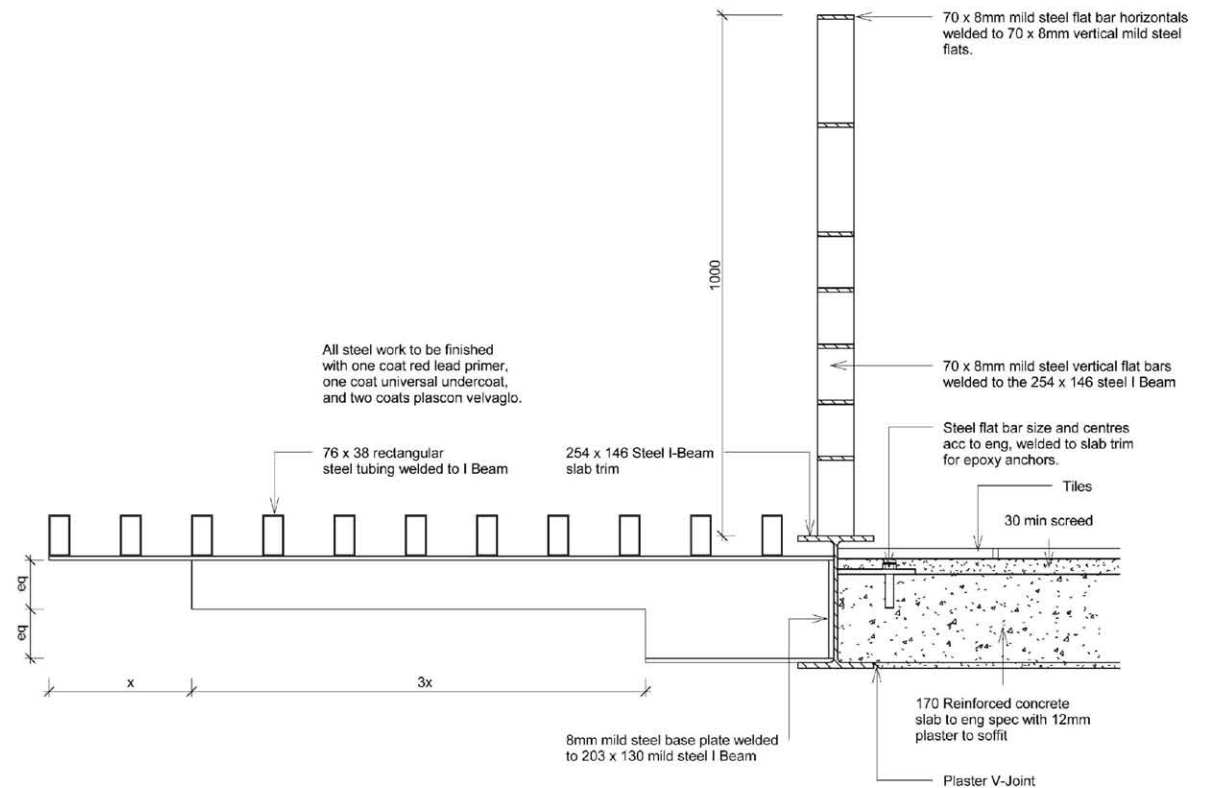


Fig. 8.5: Use of timber to soften building edge and provide shading



HORIZONTAL STEEL LOUVRE AND BALLUSTRADE DETAIL 1:10

Fig. 8.6: Steel component detail

8.5 Passive climate control

Pretoria has a moderate climate, it therefore offers a reasonable level of comfort to the user during the summer months, however during the winter additional heating is often required.

The passive systems used are designed to reduce heat gain of the building in summer and expose the building to sunshine during the winter in order to store heat in mass. It is therefore important to have a well insulated building in order to achieve the desired results, which would lighten the loads placed on the mechanical air conditioning systems. The placement of the double volume gallery adjacent to the Skills Kitchen will stimulate airflow by creating an air pressure differential which would reduce the load placed on mechanical ventilation.

8.6 Passive systems

Orientation

Due to the design intentions the building is predominantly orientated west-east. This allows for maximum northern exposure.

- The deep overhangs on the north shield the building from direct heat gain whilst allowing for natural lighting.
- The higher thermal mass to the west for heat storage and slow release.

Of particular importance to the design are the factors of maintaining the views, allowing natural light to filter into the building as well as allowing for the necessary cross ventilation required.

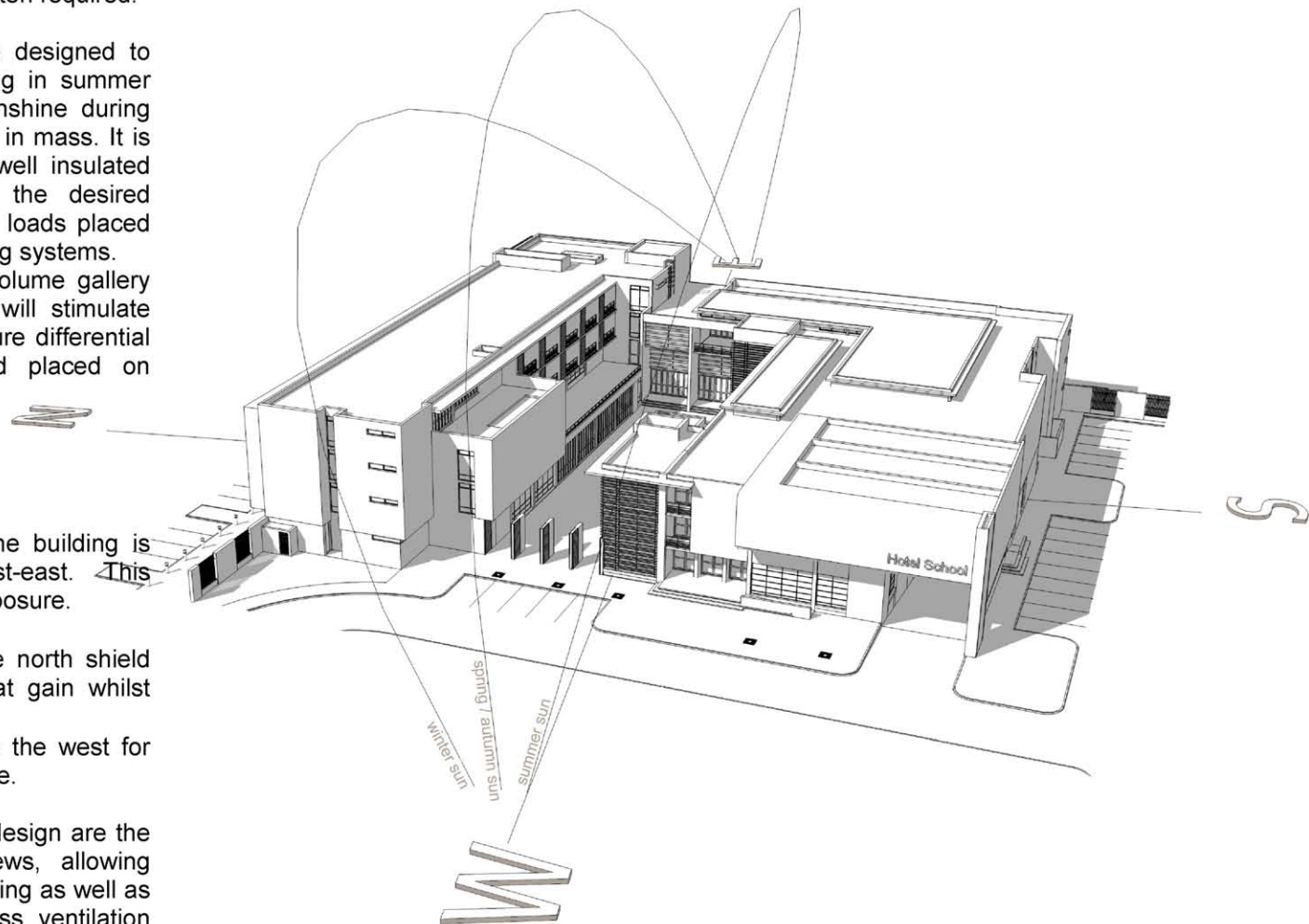


Fig. 8.7: Seasonal sun paths

Passive heating

Passive heating is a system that collects solar heat, without the use of external mechanical power to distribute it. Solar collection may be either direct (solar radiation entering directly into a space) or indirect (solar radiation heats an area which then continues to heat the area when the solar exposure has passed).

Due to the building programme, users will be present at varying times throughout the day. Students will occupy the school during the day only, whereas the hotel guest will be present during the evening. Thus both systems are appropriate, however the approach to the system will vary.

The overhangs are designed to allow winter sun to enter directly into the building, while keeping summer sun out. This causes the interior of the building to be heated in winter by the sun's energy, while remaining cool during the summer.

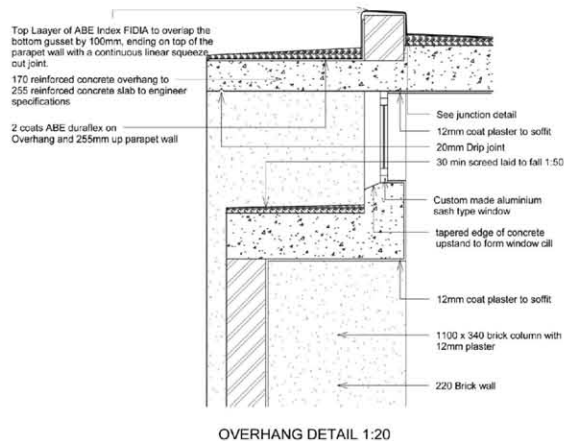
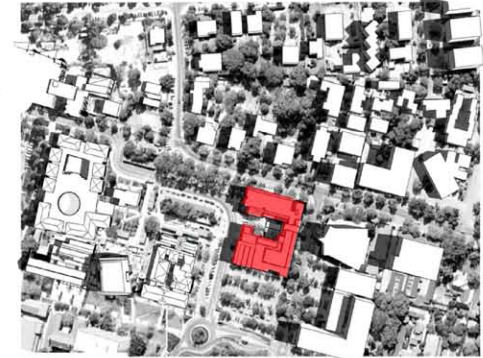


Fig. 8.8: Detail of clerestory box window



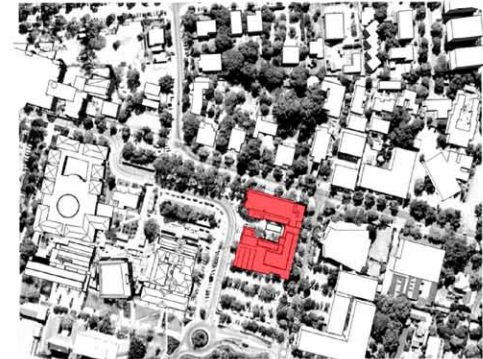
Winter 08:00



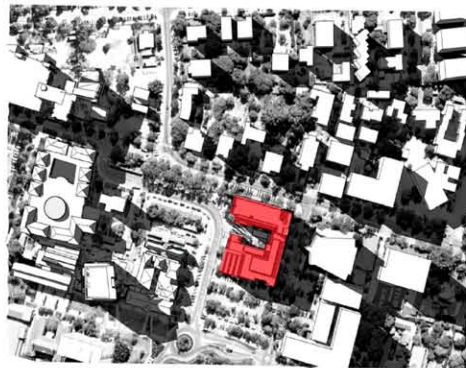
Summer 08:00



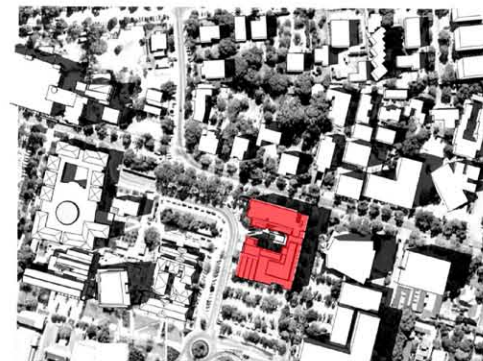
Winter 12:00



Summer 12:00



Winter 16:00

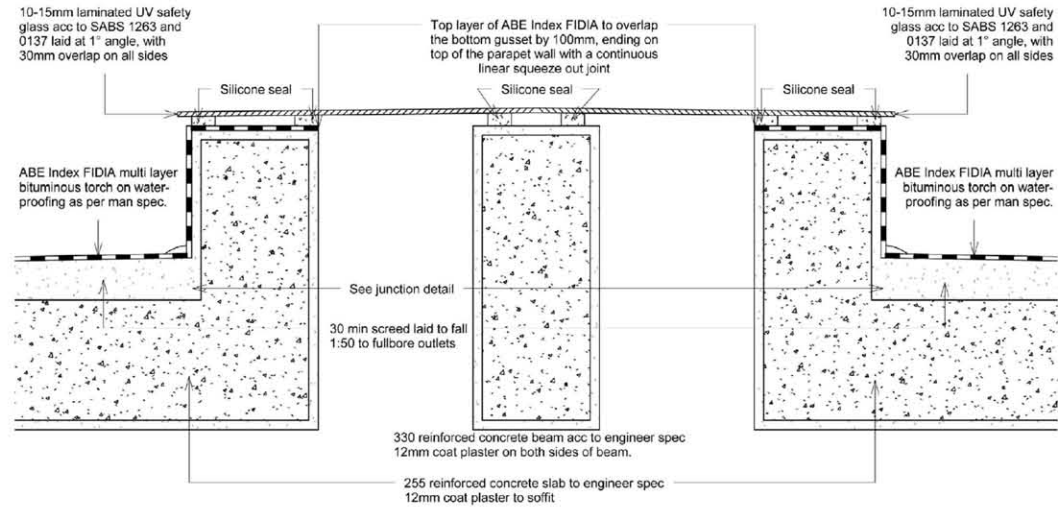


Summer 16:00

Fig. 8.9: Shadow study

8.7 Lighting

The strategy for lighting the building interior is predominantly by daylight which would be supplemented by artificial lighting when necessary. The courtyard layout offers good natural lighting, however direct natural lighting is not desired for the school as it creates glare, it is therefore necessary to maximise diffused light entry. Where the building depth becomes too deep such as the larger class rooms on the first and second floors natural lighting is supplemented by clerestory windows. The eastern, western and northern windows are controlled for reasonable day lighting solutions whilst the and south facing windows provide a uniform light source.



SKY LIGHT DETAIL 1:10

Fig. 8.10: Sky light detail

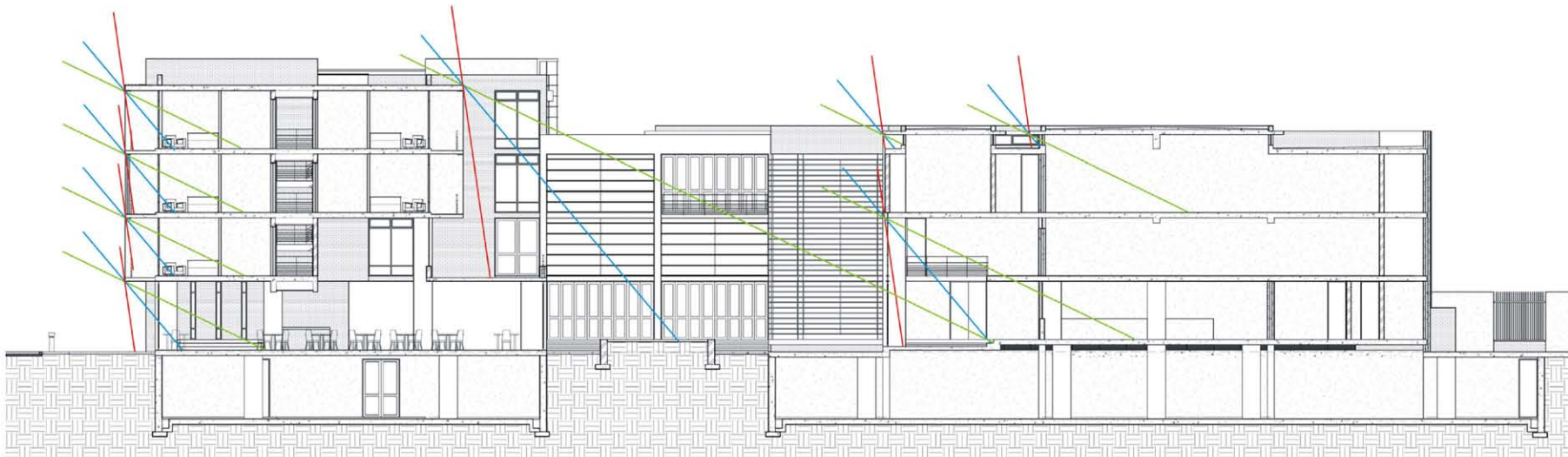


Fig. 8.11: Vertical sun angle penetration



8.8 Air-conditioning systems

Multi system mid wall type air conditioning units will be used throughout the majority of the building with the compressor unit installed on the roof. The system reduces unnecessary energy consumption by allowing user control over individual rooms or suites. The auditorium will use a similar higher capacity system, with the compressor unit located in the basement.

8.9 Water catchment and re-use

Rainwater harvesting will be feasible, due to the large roof area of the development, however the water harvested will not be used for human consumption.

Average monthly Rainfall :
36mm

Total roof area:
2666 m²

Total harvested rainwater:
95m³/ month = 95 kilolitres

Cost of R3 / KL of water / annum :
R3420 / Annum

Water use in toilets:

20 x flush / toilet / day at 8 litres / flush

The water used for flushing 30 latrines of the School Faculty alone amounts to 4800 litres / day.

Total harvested = 95000 Litres / month

Total required = 144000 Litres / month

Therefore 20 days worth of flushing requirements will be catered for by the capacity of the rainwater harvesting system.

Storage

10 x 9000 litre water storage tanks are required in basement level. In the event of inadequate rainwater storage, the municipal water supply would supplement the flushing requirements by means of a switch valve. All water tanks to be equipped with overflow valves that direct excess water to municipal connections.

8.10 Landscaping

Although the site is currently in a state of neglect it is softened by the existing established trees. The indigenous trees that are disturbed during the construction phase will be transplanted to the interior periphery of the site in order to soften the Ring Road edge as well as offer natural shading during the summer months. Although the *Pinus patula* (Pine trees) trees on Duxbury Street sidewalk are exotic, their size and historical significance contributes to the pedestrian sense of experience.

The courtyard area acts as visual and physical link between the building wings, it is therefore necessary to use sculptural trees which would act as central focus as well as influence the micro climate of the yard. The *Combretum erythrophyllum* trees will counteract heat radiated from hard landscaped surfaces by means of transpiration.

Surfaces

Public areas around the building cater for a high degree of pedestrian usage, it is therefore crucial that durability and comfort be considered. The ground surface surrounding the building will be a combination of pre-cast concrete blocks of an exposed aggregate medium in colour as well as clay paving bricks.

Where a more intimate scale is required, the application of varying textures and the use of smaller units will further define the public spaces, such as the northern and eastern sidewalks.

8.11 Services

The integration of internal and external service shafts have been incorporated into the design.

- The plant room for the auditorium is located in the basement with a dedicated ventilation shaft.
- Separate data, Telkom and electrical services are located within the lift shaft.
- The hotel suites above are serviced by a dumb waiter situated between the bar and kitchen on ground floor.
- The Restaurant kitchen has a dedicated ventilation and extraction shaft.
- The Restaurant receives stock using a hydraulic service elevator from the basement below where receiving, storage and staff ablution facilities are located.
- The skills kitchens for the Hotel school receive goods from the south of the site via the receiving area which is accessed from Ring road, as this allows for more efficient utilisation of space in the public areas without interference of back of house activities.

8.12 Fire strategy

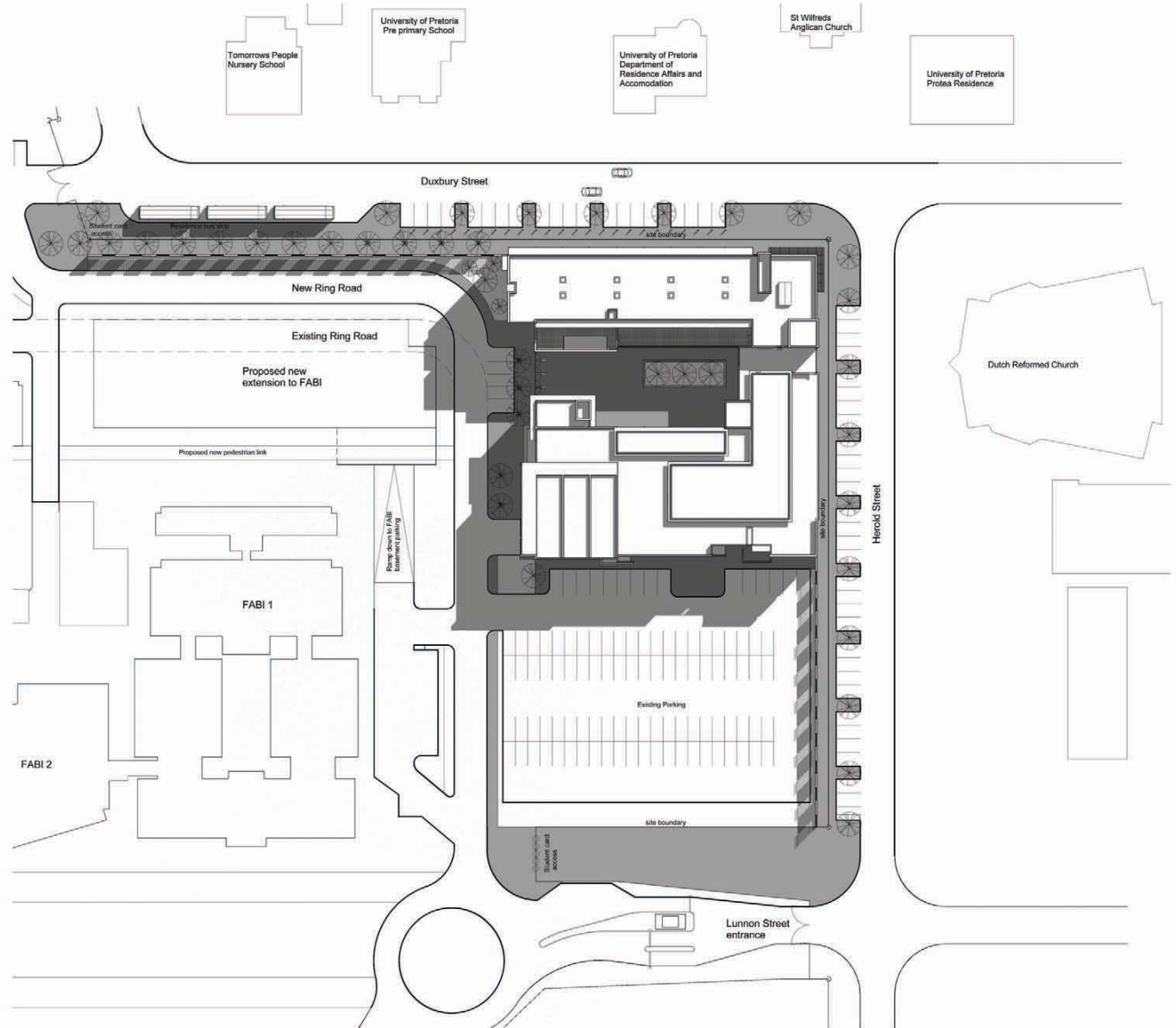
Escape routes

According to SABS 0040 section TT16, emergency escape routes are not required where the travel distance measured to the nearest escape door is not more than 45m provided such building is not more than two storeys high.



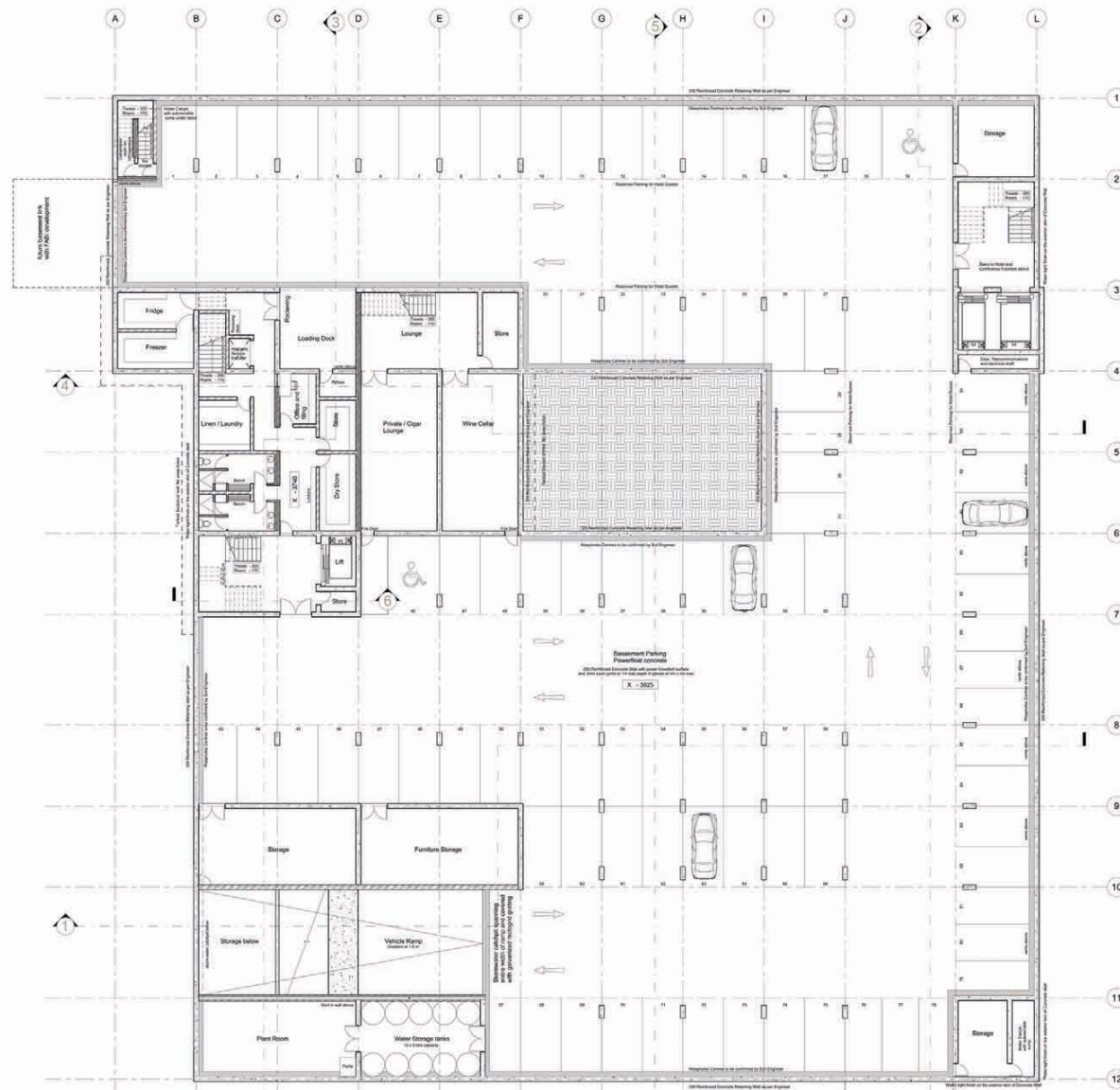
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Chapter 9_Technical Report



Site Plan

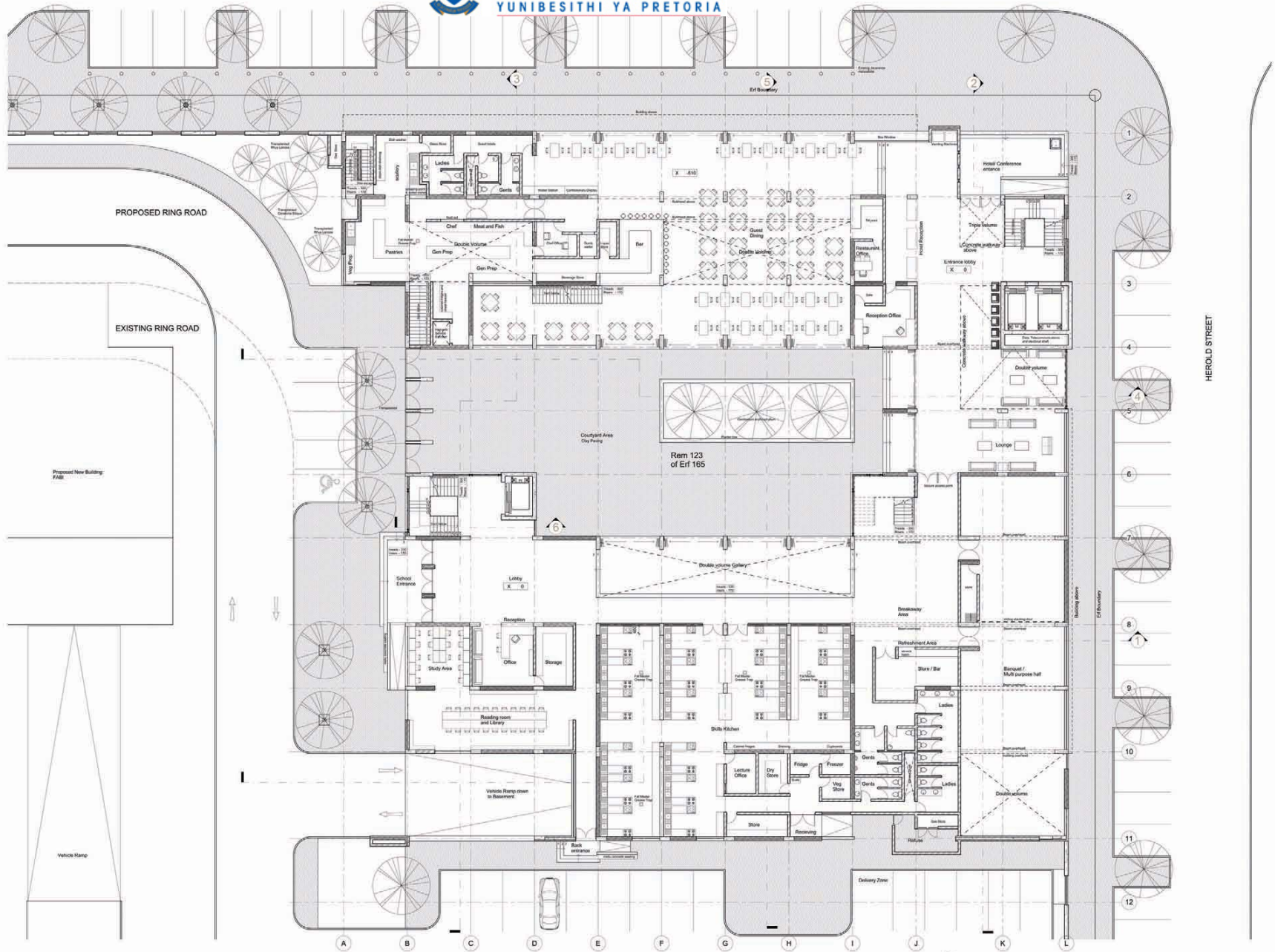




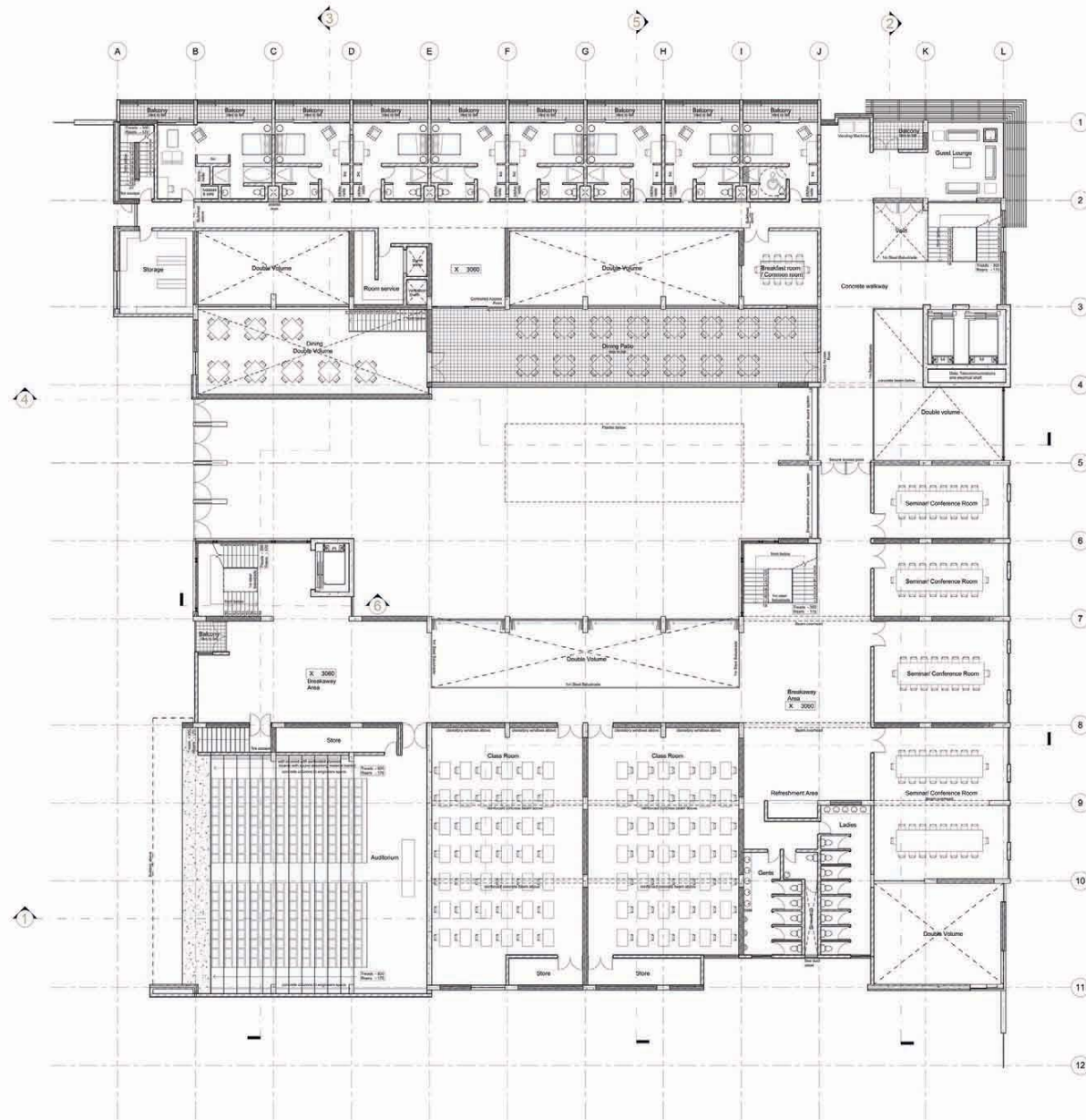
Total parking 94 bays

Calculations for required parking bays:
Table 2: 305 SABS 5900-1992
Nelson Architects Data 2012
Student: 1 Parking Bay per 3 Students = 10 Bays
Catering Staff: 1 Bay per Manager = 10 Bays
Catering Staff: 1 Bay per 3 Staff = 20 Bays
Hotel Guests: 1 Bay per Bedroom = 20 Bays

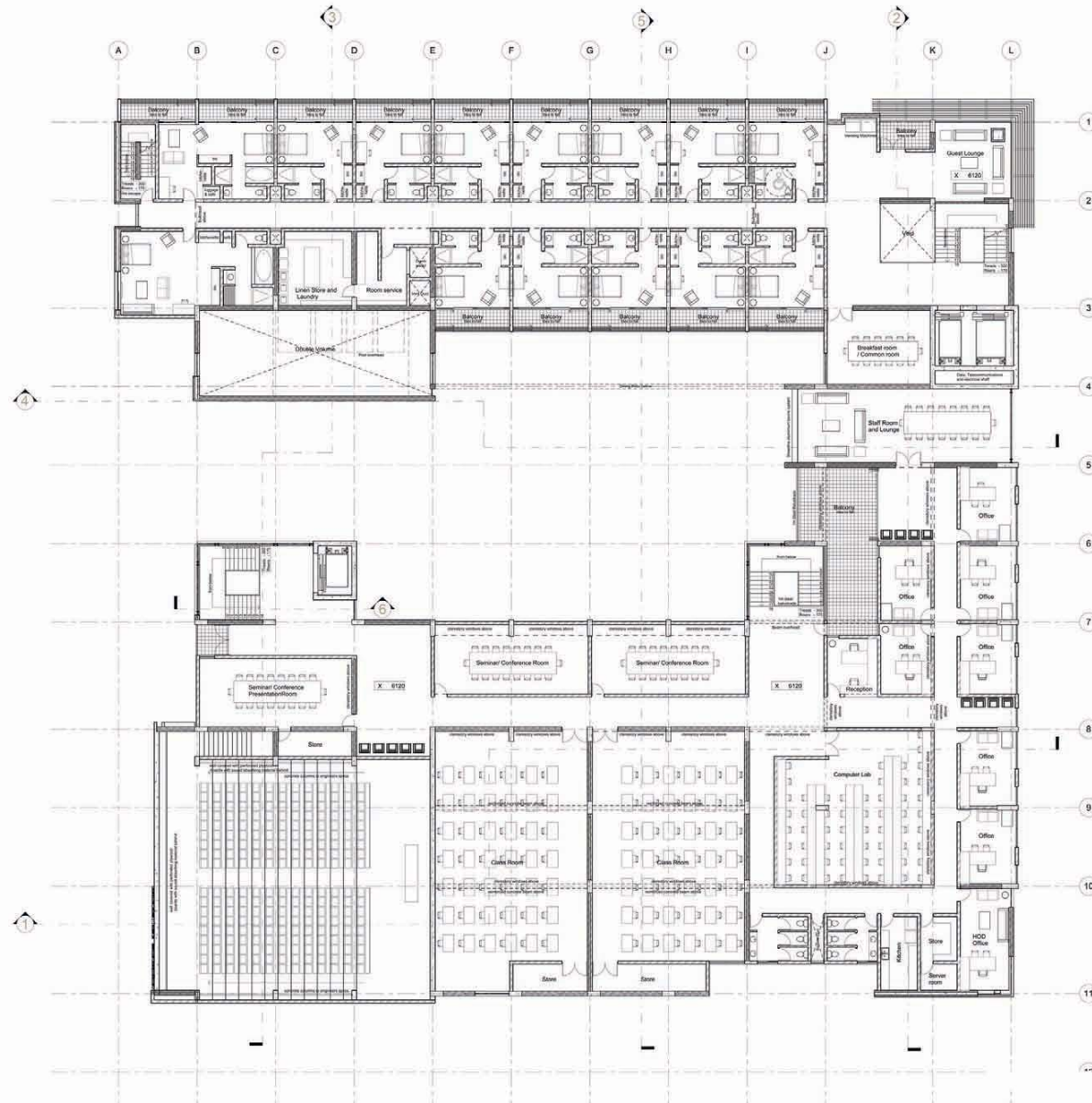
Basement Plan



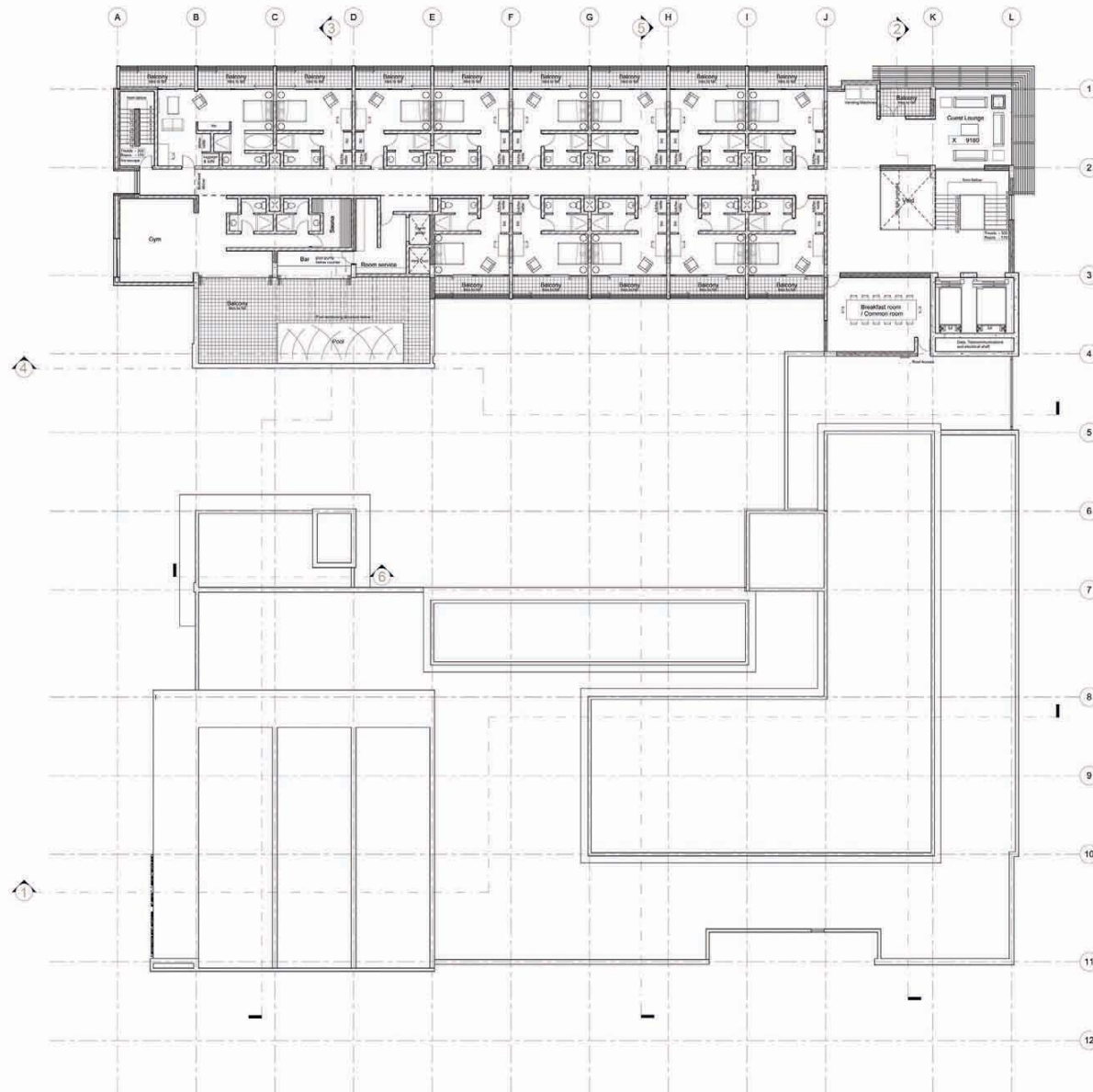
Ground Floor Plan



First Floor Plan



Second Floor Plan



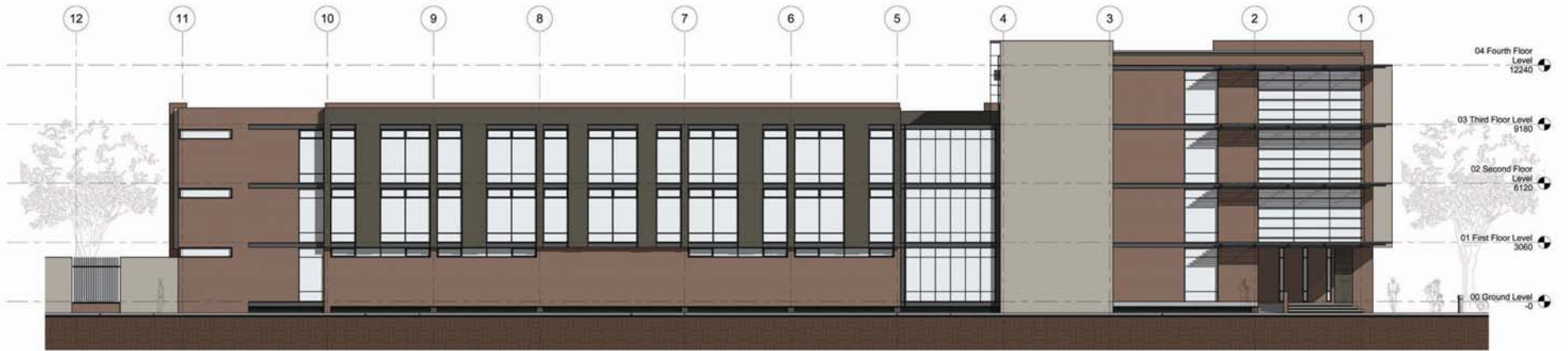
Third Floor Plan



Northern Elevation 0 1 2 3 4 5 6 7 8 9 10



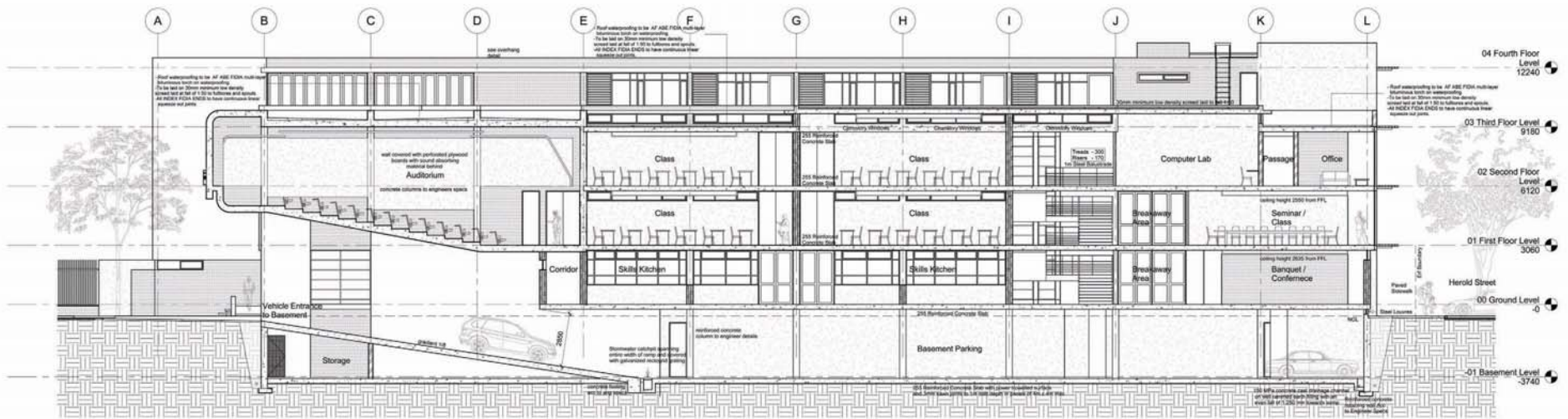
Western Elevation 0 1 2 3 4 5 6 7 8 9 10



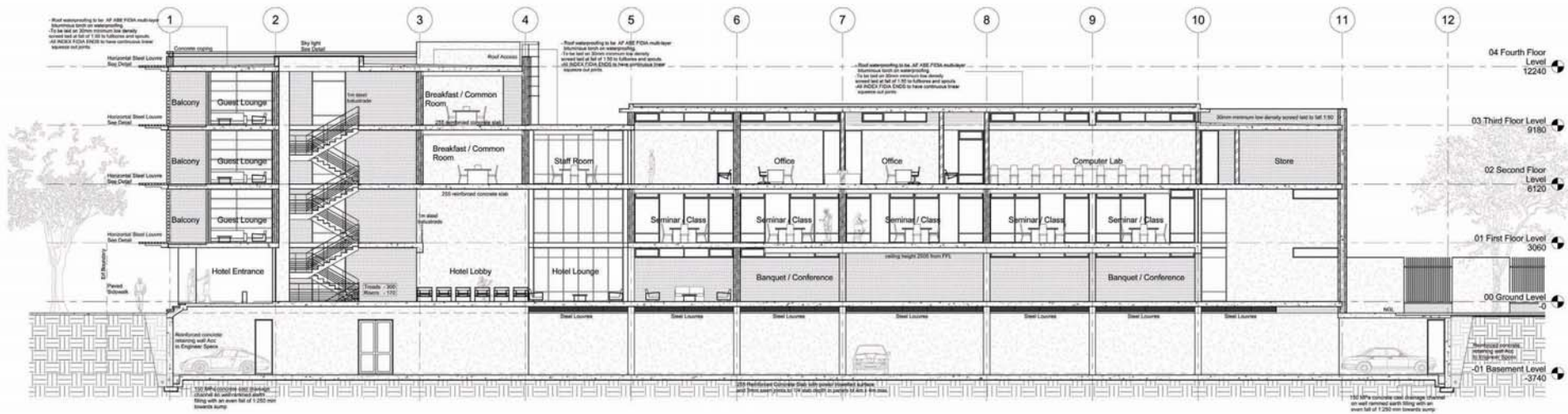
Eastern Elevation 0 1 2 3 4 5 6 7 8 9 10



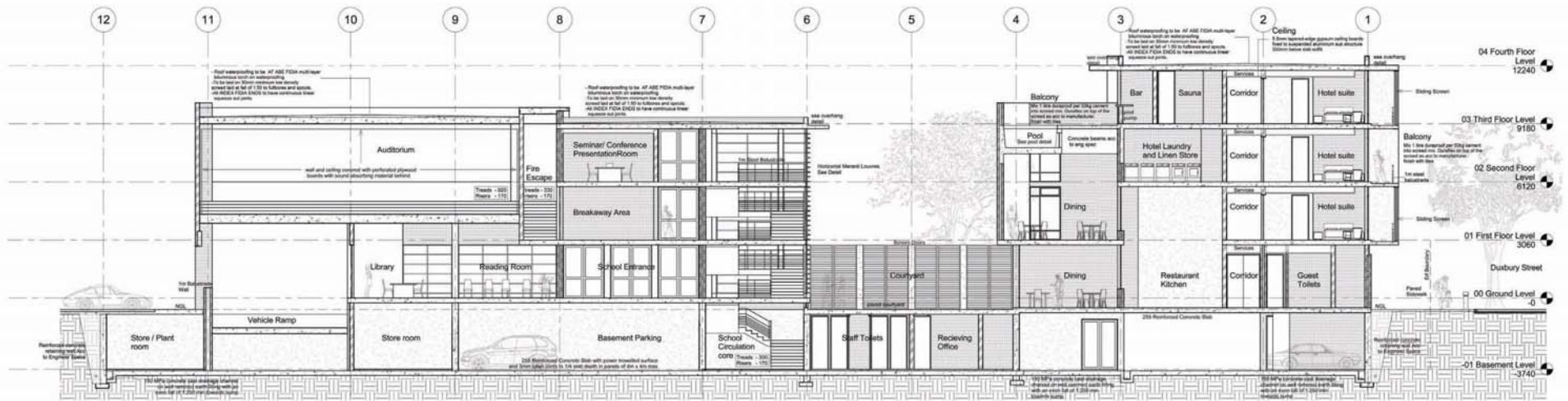
Southern Elevation 0 1 2 3 4 5 6 7 8 9 10



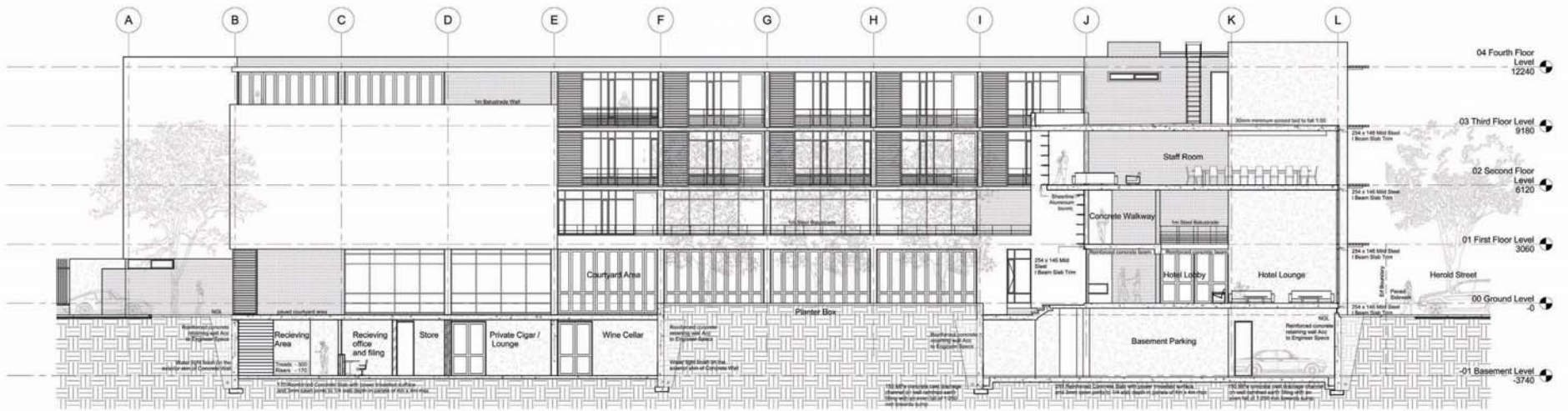
Section 1 0 1 2 3 4 5 6 7 8 9 10



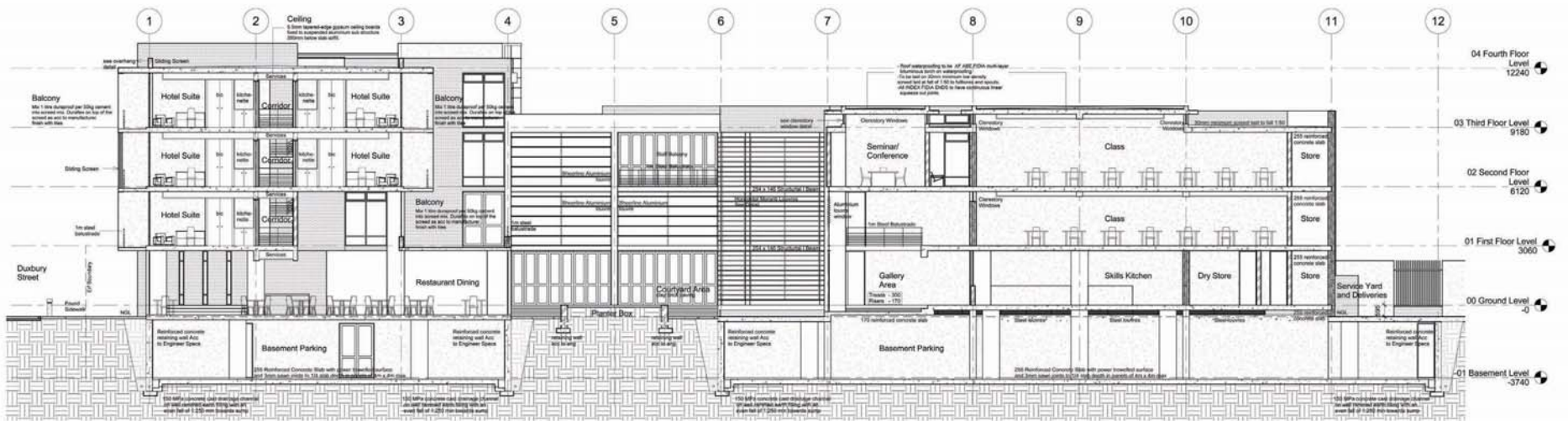
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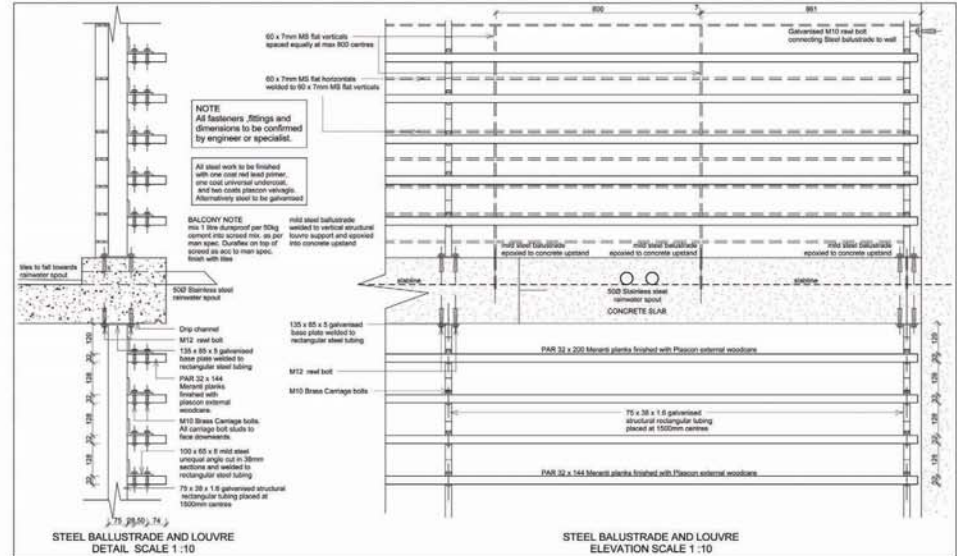
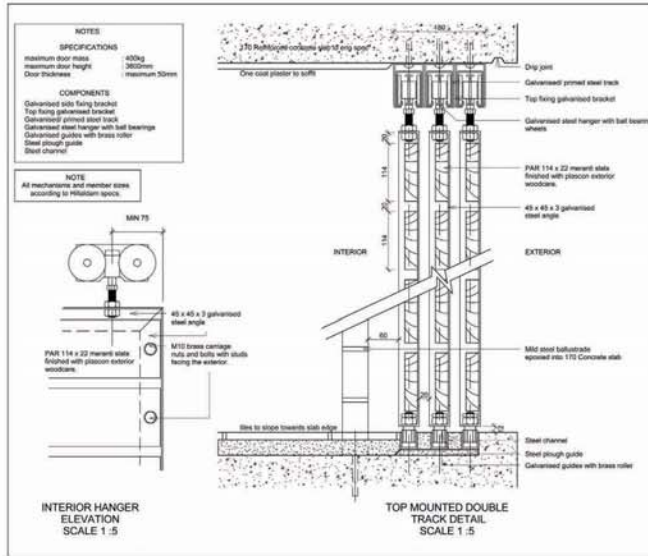
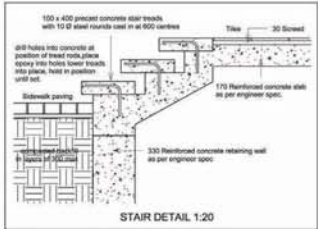
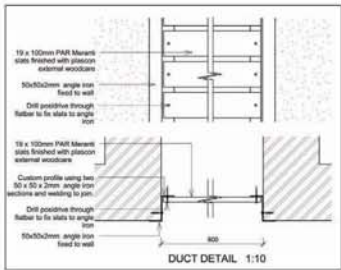
Section 3 0 1 2 3 4 5 6 7 8 9 10

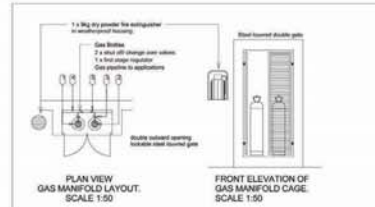
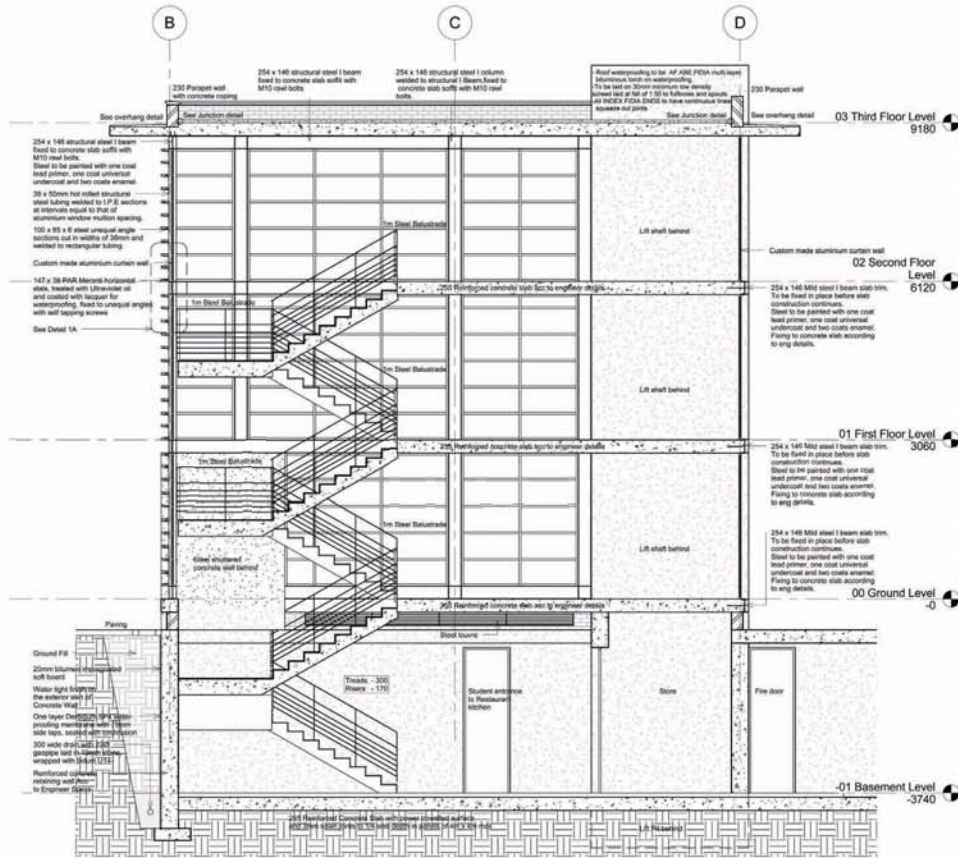


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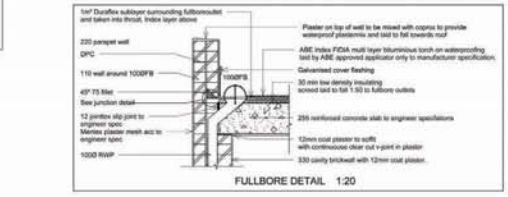
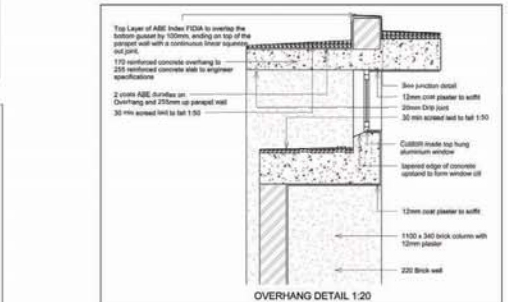
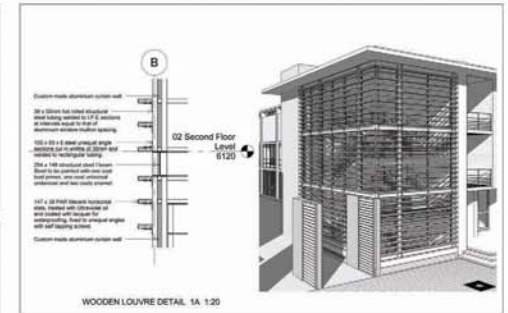
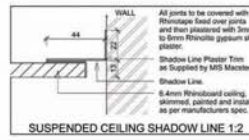
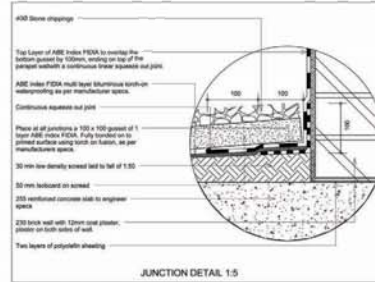


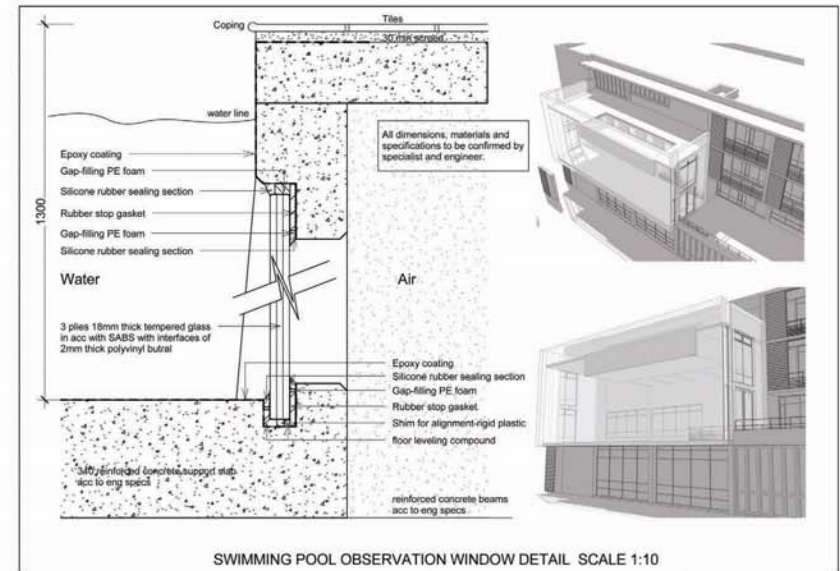
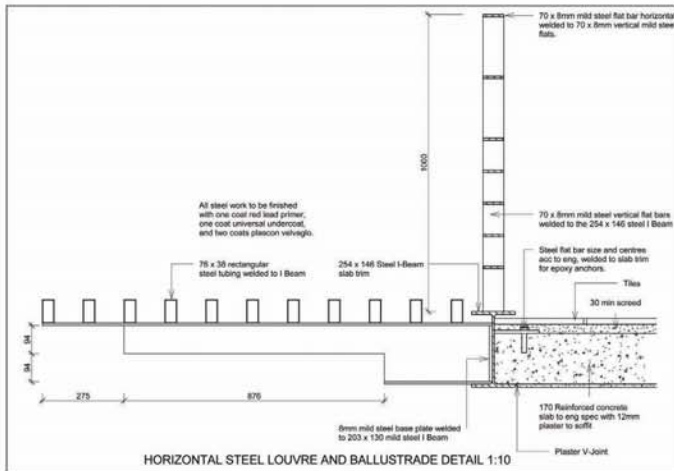
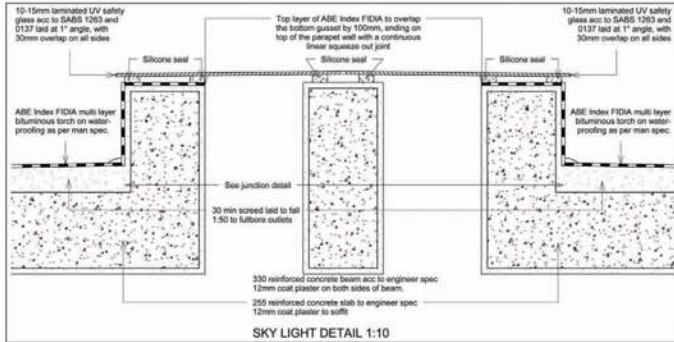
Section 5 0 1 2 3 4 5 6 7 8 9 10





- 1 - 400L LPG CYLINDER
 - 2 - 400L LPG CYLINDER
 - 3 - 400L LPG CYLINDER
 - 4 - 400L LPG CYLINDER
- GAS NOTE:**
ALLOW FOR MANIFOLD TYPING SIGNIFICANTLY DISPLAYED AS PER SAFE SET
ALL SIZES AND SAFETY DISTANCES TO BE CHECKED ON SITE AND MADE UP TO COMPLIANCE WITH BASE SET FIRST STANDARDS
ALL INSTALLATIONS ARE SUBJECT TO LOCAL AUTHORITY APPROVAL INCLUDING ALL BY-LAWS PERTAINING TO GAS INSTALLATIONS INCLUDING PERSONS ALLOWED TO WORK UNDER ANY CIRCUMSTANCES
ALL MANIFOLD AND EQUIPMENT TO BE PROVIDED AT ALL TIMES AND IS TO BE MAINTAINED IN A GOOD WORKING CONDITION AND MAINTENANCE TO BE KEPT UPON AT ALL CONVENIENT TIMES AND POSSIBLE OBSTACLES WHICH MAY HINDER ACCESS TO GAS FACILITY
ALL SAFETY AND WARNING NOTICES TO BE PROMINENTLY DISPLAYED TO THE GAS FACILITY IS BY AUTHORIZED PERSONS ONLY
ALL OPEN DRIVES ARE SEALED OR BUILT UP
ALL BUILDINGS TO COMPLY WITH BASE SET
ALL ELECTRICAL WORK TO COMPLY WITH BASE SET
NO GAS TO BE SUPPLIED UNTIL REGISTRATION OF GAS INSTALLATION BY LOCAL AUTHORITY





9.2 Conclusion

The dissertation investigated the reprogramming of a portion of land on the University of Pretoria's periphery. The aim was to exploit boundary and facilitate transition through suitable programme. It is the intention of the author to allow the University to commit to the ideal of place making along its borders, this commitment would signify the Institutions lifelong journey to partnership building and self transformation within the urban context.

The fundamental determinant of the investigation was the influential hypothesis of urban planning, and was consciously explored throughout the design process. The approach towards an inclusive environment was shaped by the ideals of creating a place of refuge with character and an identity which the user would easily relate to.

The predominant quality of this inclusive approach is the definition of the intervention, the boundary or edge. The significance of this element is carried on through the design discourse as it becomes central to the convergence of space. The threshold becomes the plane where conflict and function are merged to form a third dimension, a "between" inside and outside, celebrating the inclusion and exclusion of that particular function where contradiction and conflict is free to occur.

The empirical theories of the urban planners suggest that conducive urban environments are those that offer choice. However it becomes clear that effective spatial planning requires an established variation to programme or the introduction of new programmes that accommodate for the creation of nodes around which new space can sustain itself.

The site provided for particular design challenges particularly with regards to connectedness, however through the programme of hospitality the possibilities of integration and public use became critical components which allowed for the unification of Campus and its surrounds.

The location of the intervention allows diversity to define the district edge, it allows for chance encounters and it becomes a node of unpredictability in the sense that perhaps it would be perceived as ill placed or peculiar. This in itself becomes the flourishing aspect of its diversity, its unpredictable use and its subjection of monotony. Cities and the buildings which form them have the capacity of providing something for everybody only when they are created for everybody. As mentioned in the first pages of this dissertation the aim was to oppose the current translations of space within the South African city. This dissertation proposes an architecture that fulfils its programmatic requirements responsibly, while taking into account its effects within the social and environmental context. Community response and active engagement are crucial to the success of the project, it is therefore important to consider the perceptive realities which come to the fore as a result of the intervention.



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Appendix 1: Occupancy classes and accommodation schedules

Function	Class	Occupancy	Ground Floor	Area	Population	Male	Female
Restaurant	A1	1/m ² or 1/seat	Education:	+350m ²	+80 users	2 wc; 3 urinal; 3 hwb	5 wc; 3 hwb
Office	G1	1/15m ²	Conference:	+250m ²	+65 users	2 wc; 3 urinal; 3 hwb	5 wc; 3 hwb
Hotel	H1	2/Bedroom	Restaurant:	+400m ²	+200 users	2 wc; 2 hwb	2 wc; 2 hwb
Education	A3	1/5m ²	First Floor				
Conference	A3	1/5m ²	Education:	+550m ²	+120 users	3 wc; 2 urinal; 3hwb	5 wc; 3 hwb
			Conference:	+250m ²	+60 users	2 wc; 1 urinal; 2hwb	3 wc; 2 hwb
			Second Floor				
			Education:	+700m ²	+140 users	facilities on level below	

Accommodation Schedule

Basement

		Notes
Parking	96 Bays	1 Parking bay/hotel guest 1 Parking bay/3 Senior student 1 Parking bay/Staff member
Storage and plant	280m ²	
Receiving and Storage (Restaurant)	167m ²	Minimum of two parking spaces for deliveries
Laundry (Restaurant)	13m ²	
Wine Cellar (Restaurant)	59m ²	Fire escape necessary
Private Lounge (Restaurant)	115m ²	Fire escape necessary

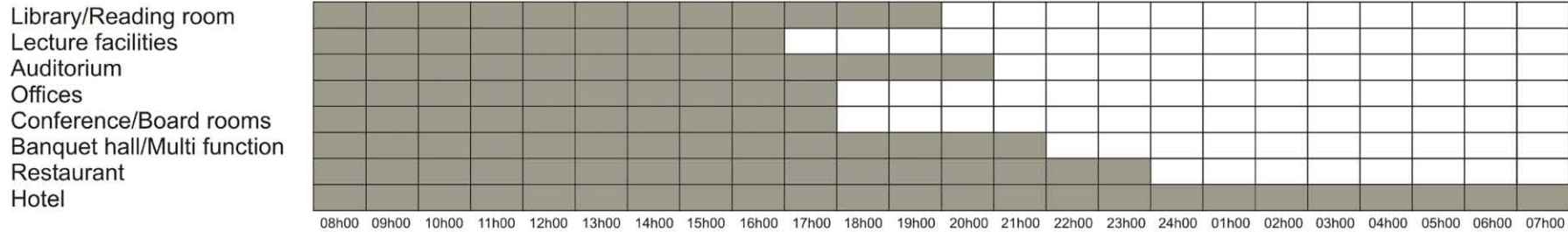
Ground Floor

	School	
Reception	47m ²	
Reading room and Library	112m ²	
Skills Kitchens	326m ²	Gas storage according to SABS 0400
Receiving area and Storage	80m ²	
Gallery Area	460m ²	
Banquet Hall/Multi Function	293m ²	Storage for furniture: folding tables and stackable chairs
Restaurant		
Kitchen and Bar area	256m ²	Gas storage according to SABS 0400
Dining	550m ²	Furniture store in basement
Office	21m ²	
Hotel		
Reception and Office	52m ²	
Foyer and Lounge	49m ²	

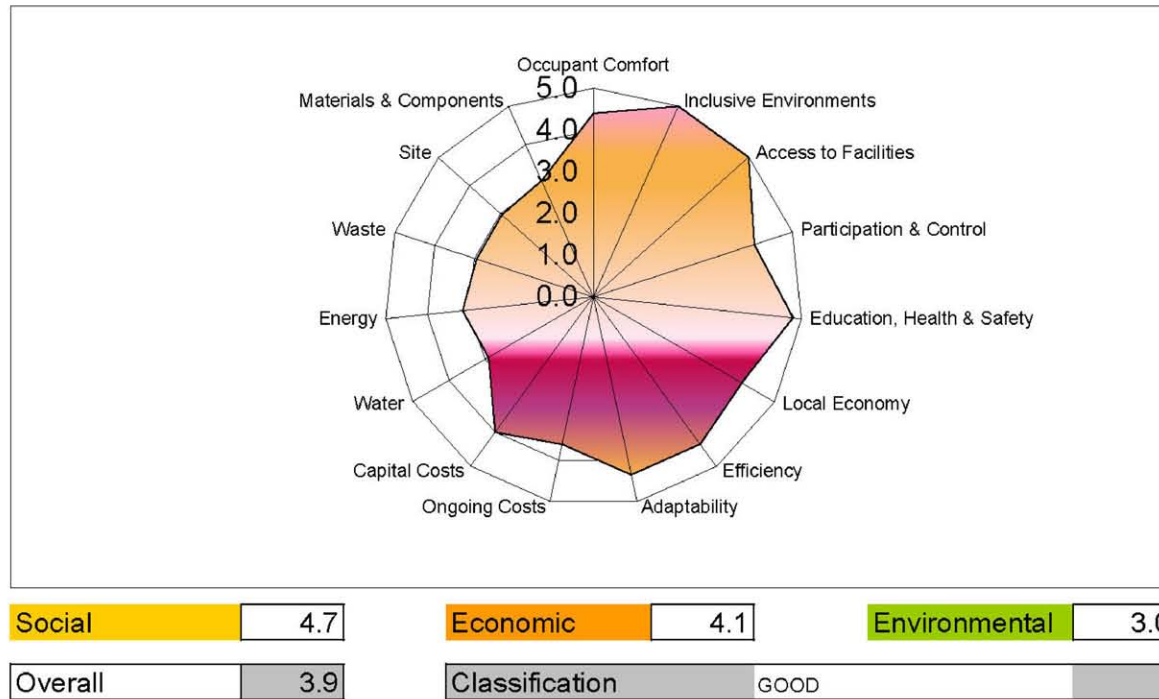


First Floor		School	Notes
Auditorium	234 Seats	362m ²	Fire escape necessary
Lecture Rooms		406m ²	
Seminar/Conference Rooms		285m ²	
Dining		Restaurant	
		105m ²	
7 x Double Rooms		Hotel	
1 x Executive		37m ² (each)	1 room per floor to be allocated to disabled user
Breakfast Room		56m ²	
Lounge		30m ²	
Store		68m ²	
Room Service		35m ²	
		25m ²	
Second Floor		School	
Reception		16m ²	
8 x Office		182m ²	
Staff Room		85m ²	
Kitchenette		9m ²	
Storage		22m ²	
Computer Lab		123m ²	Server room requires air conditioning
Covered Balcony		58m ²	
Lecture Rooms		587m ²	
11 x Double Rooms		Hotel	
1 x Executive Room		37m ² (each)	
1 x Luxury Room		56m ²	
Breakfast Room		63m ²	
Lounge		40m ²	
Linen Store		68m ²	
Room Service		29m ²	
		25m ²	
Third Floor		Hotel	
12 x Double Rooms		37m ² (each)	
1 x Executive Room		56m ²	
Gymnasium and Sauna		88m ²	
Breakfast Room		40m ²	
Lounge		68m ²	
Bar		13m ²	
Room Service		25m ²	
Total Area of Building			
		Basement	3851m ²
		Ground Floor	2713m ²
		First Floor	2815m ²
		Second Floor	2524m ²
		Third Floor	1034m ²

Appendix 2: Building usage over duration of the day



Appendix 3: Sustainable building assessment tool (SBAT-P) V1



Building Performance - Social

Criteria	Indicative performance measure	Measured	Points
SO 1 Occupant Comfort			4.4
SO 1.1 Daylighting	% of occupied spaces that are within distance 2H from window, where H is the height of the window or where there is good daylight from skylights	90	0.9
SO 1.2 Ventilation	% of occupied spaces have equivalent of opening window area equivalent to 10% of floor area or adequate mechanical system, with unpolluted air source	100	1.0
SO 1.3 Noise	% of occupied spaces where external/internal/reverberation noise does not impinge on normal conversation (50dba)	85	0.9
SO 1.5 Thermal comfort	Temperature of occupied space does not exceed 28 or go below 19°C for less than 5 days per year (100%)	85	0.9
SO 1.5 Views	% of occupied space that is 6m from an external window (not a skylight) with a view	80	0.8
SO 2 Inclusive Environments			5.0
SO 2.1 Public Transport	% of building (s) within 400m of disabled accessible public transport	100	1.0
SO 2.2 Information	High contrast, clear print signage in appropriate locations (100%)	100	1.0
SO 2.3 Space	% of occupied spaces that are accessible to ambulant disabled / wheelchair users	100	1.0
SO 2.4 Toilets	% of space with fully accessible toilets within 50m	100	1.0
SO 2.5 Fittings & Furniture	% of commonly used furniture and fittings (reception desk, kitchenette, auditorium) fully accessible	100	1.0
SO 3 Access to Facilities			5.0
SO 3.1 Children	All users can walk (100%) / use public transport (50%) to get to their childrens' schools and creches	100	1.0
SO 3.2 Banking	All users can walk (100%) / use public transport (50%) to get to banking facilities	100	1.0
SO 3.3 Retail	All users can walk (100%) / use public transport (50%) to get to food retail	100	1.0
SO 3.4 Communication	All users can walk (100%) / use public transport (50%) to get to communication facilities (post, telephone and internet)	100	1.0
SO 3.5 Exercise	All users can walk (100%) / use public transport (50%) to get to recreation / exercise facilities	100	1.0
SO 4 Participation & Control			4.1
SO 4.1 Environmental control	% of occupied spaces able to control their thermal environment (adjacent to openable windows/thermal controls)	75	0.8
SO 4.2 Involvement	% of users actively involved in the design process (workshops / meetings with models / large format drawings)	50	0.5
SO 4.3 Social spaces	Social informal meeting spaces (parks / staff canteens / cafes) provided locally (within 400m) (100%)	100	1.0
SO 4.4 Sharing facilities	5% of facilities shared with other users / organisations on a weekly basis (100%)	100	1.0
SO 4.5 User group	Active representative user group involved in the management of the building / facilities / local environment (100%)	80	0.8
SO 5 Education, Health & Safety			4.8
SO 5.1 Education	Two percent or more space/facilities available for education (seminar rooms / reading / libraries) per occupied spaces (75%). Construction training provided on site (25%)	100	1.0
SO 5.2 Safety	All well used routes in and around building well lit (25%), all routes in and around buildings (25%) visually supervised, secure perimeter and access control (50%), No crime (100%)	90	0.9
SO 5.3 Awareness	% of users who can access information on health & safety issues (ie HIV/AIDS), training and employment opportunities easily (posters/personnel)	90	0.9
SO 5.4 Materials	All materials/components used have no negative effects on indoor air quality (100%)	100	1.0
SO 5.5 Accidents	Method in place for recording all occupational accidents and diseases and addressing these	100	1.0

Building Performance - Economic

Criteria	Indicative performance measure	Measured	Points
EC 1 Local economy			4.1
EC 1.1 Local contractors	% value of the building constructed by local (within 50km) small (employees<20) contractors	80	0.8
EC 1.2 Local materials	% of materials (sand, bricks, blocks, roofing material) sourced from within 50km	80	0.8
EC 1.3 Local components	% of components (windows, doors etc) made locally (in the country)	100	1.0
EC 1.4 Local furniture/fittings	% of furniture and fittings made locally (in the country)	50	0.5
EC 1.5 Maintenance	% of maintenance and repairs by value that can, and are undertaken, by local contractors (within 50km)	100	1.0
EC 2 Efficiency			4.4
EC 2.1 Capacity	% capacity of building used on a daily basis (actual number of users / number of users at full capacity*100)	85	0.9
EC 2.2 Occupancy	% of time building is occupied and used (actual average number of hours used / all potential hours building could be used (24) *100)	80	0.8
EC 2.3 Space per occupant	Space provision per user not more than 10% above national average for building type (100%)	80	0.8
EC 2.4 Communication	Site/building has access to internet and telephone (100%), telephone only (50%)	100	1.0
EC 2.5 Material & Components	Building design coordinated with material / component sizes in order to minimise wastage. Walls (50%), Roof and floors (50%)	90	0.9
EC 3 Adaptability			4.2
EC 3.1 Vertical heights	% of spaces that have a floor to ceiling height of 3000mm or more	85	0.9
EC 3.2 External space	Design facilitates flexible external space use (100%)	90	0.9
EC 3.3 Internal partition	Non loadbearing internal partitions that can be easily adapted (loose partitioning (100%), studwall (50%), masonry (25%))	70	0.7
EC 3.4 Modular planning	Building with modular structure, envelope (fenestration) & services allowing easy internal adaptation (100%)	80	0.8
EC 3.5 Furniture	Modular, limited variety furniture - can be easily configured for different uses (100%)	90	0.9
EC 4 Ongoing costs			3.6
EC 4.1 Induction	All new users receive induction training on building systems (50%), Detailed building user manual (50%)	70	0.7
EC4.2 Consumption & waste	% of users exposed on a monthly basis to building performance figures (water (25%), electricity (25%), waste (25%), accidents (25%))	20	0.2
EC 4.2 Metering	Easily monitored localised metering system for water (25%) and energy (75%)	100	1.0
EC4.3 Maintenance & Cleaning	Building can be cleaned and maintained easily and safely using simple equipment and local non-hazardous materials (100%)	70	0.7
SO 4.5 Procurement	% of value of all materials/equipment used in the building on a daily basis supplied by local (within the country) manufacturers	100	1.0
EC 5 Capital Costs			4.0
EC 5.1 Local need	Five percent capital cost allocated to address urgent local issues (employment, training etc) during construction process (100%)	100	1.0
EC5.2 Procurement	Tender / construction packaged to ensure involvement of small local contractors/manufacturers (100%)	100	1.0
EC 5.3 Building costs	Capital cost not more than fifteen % above national average building costs for the building type (100%)	100	1.0
EC5.4 Sustainable technology	3% or more of capital costs allocated to new sustainable/indigenous technology (100%)	100	1.0
EC 5.5 Existing Buildings	Existing buildings reused (100%)	0	0.0

Building Performance - Environmental

Criteria	Indicative performance measure	Measured	Points
EN 1 Water			2.9
EN 1.1 Rainwater	% of water consumed sourced from rainwater harvested on site	70	0.7
EN 1.2 Water use	% of equipment (taps, washing machines, urinals showerheads) that are water efficient	100	1.0
EN 1.3 Runoff	% of carparking, paths, roads and roofs that have absorbant/permeable surfaces (grassed/thatched/looselaid paving/ absorbant materials)	50	0.5
EN 1.4 Greywater	% of water from washing/relatively clean processes recycled and reused	0	0.0
EN 1.5 Planting	% of planting (other than food gardens) on site with low / appropriate water requirements	70	0.7
EN 2 Energy			3.2
EN 2.1 Location	% of users who walk / use public transport to commute to the building	40	0.4
EN 2.2 Ventilation	% of building ventilation requirements met through natural / passive ventilation	70	0.7
EN 2.3 Heating & Cooling	% of occupied space which has passive environmental control (no or minimal energy consumption)	70	0.7
EN 2.4 Appliances & fittings	% of appliances / lighting fixtures that are classed as highly energy efficient (ie energy star rating)	85	0.9
EN 2.5 Renewable energy	% of building energy requirements met from renewable sources	50	0.5
EN 3 Waste			3.0
EN 3.1 Toxic waste	% of toxic waste (batteries, ink cartridges, flourescent lamps) recycled	75	0.8
EN 3.2 Organic waste	% of organic waste recycled	85	0.9
EN 3.3 Inorganic waste	% of inorganic waste recycled.	85	0.9
EN 3.4 Sewerage	% of sewerage recycled on site	0	0.0
EN 3.5 Construction waste	% of damaged building materials / waste developed in construction recycled on site	50	0.5
EN 4 Site			3.0
EN 4.1 Brownfield site	% of proposed site already disturbed / brownfield (previously developed)	100	1.0
EN 4.2 Neighbouring buildings	No neighbouring buildings negatively affected (access to sunlight, daylight, ventilation) (100%)	100	1.0
EN 4.3 Vegetation	% of area of area covered in vegetation (include green roofs, internal planting) relative to whole site	10	0.1
EN 4.4 Food gardens	Food gardens on site (100%)	0	0.0
EN 4.5 Landscape inputs	% of landscape that does not require mechanical equipment (ie lawn cutting) and or artificial inputs such as weed killers and pesticides	85	0.9
EN 5 Materials & Components			3.1
EN 5.1 Embodied energy	Materials with high embodied energy (aluminium,plastics) make up less than 1% of weight of building (100%)	95	1.0
EN 5.2 Material sources	% of materials and components by volume from grown sources (animal/plant)	30	0.3
EN 5.3 Ozone depletion	No materials and components used requiring ozone depleting processes (100%)	100	1.0
EN 5.4 Recycled / reuse	% of materials and components (by weight) reused / from recycled sources	20	0.2
EN 5.5 Construction process	Volume / area of site disturbed during construction less than 2X volume/area of new building (100%)	60	0.6

Appendix 4: Newspaper articles

Superb cooking is all about taste

Student chefs must master latest techniques

FOOD FOR
THOUGHTDIANE
DE BEER

□ A spectacular Lorraine Meaney death-by-chocolate dessert.

If you have images of chefs screaming wildly in out-of-control kitchens, Lorraine Meaney, vice-principal, head chef and senior pastry lecturer at the Prue Leith Academy in Pretoria is a picture of calm. She talks about her passion to turn out beautiful dishes and well-trained students.

Ever since she can remember, Lorraine has been interested in food. She grew up in a home where people enjoyed food and with a dad who loved to cook hearty Irish dishes from his homeland – she got passed the genes.

But this smart chef didn't cut any corners when it was time to do her training. She applied to the Carlton and the Sandton Sun for apprenticeships and was pleased that in the end she accepted the Sandton offer. "The Carlton closed just a few months later and I would have been stranded," she says. But she still remembers their kitchens which made a huge impact on her. "They were fantastic," she says.

The days of those kind of kitchens with a brigade of chefs are probably over except in a few of the world's largest hotels or restaurants. What she does appreciate was learning how to deal with people in these circumstances. "If you get things right and stay under the radar, even angry chefs cannot shout at you," she says.

She quickly learnt to do things right. And once she conquered the basics, it was off to London and Ireland that she fled. Here, among others, she worked at the very swish Le Soufflé and experienced how things got done in a classy kitchen when preparing dishes that had to be served as soon as they popped out of the oven. She also trained as a pastry chef in Dublin to further sharpen her skills.

It was at Johannesburg's super-smart Saxon where she first started practising her pastry skills and where Lorraine discovered her true



□ Lorraine Meaney with her students in the Prue Leith kitchen.

passion. "There aren't any boundaries any longer," she says and this is what is so exciting in today's restaurant kitchen. The sky is the limit as long as you can make it work. But, and this is where the teacher talks, your foundation needs to be solid before you can start playing around.

It doesn't matter how good the food looks, if the taste isn't there, it doesn't matter. On the day of our chat, they were serving a lunch in the restaurant Prue Leith runs on a professional basis, to food students from the University of Pretoria.

For Lorraine the menu reflected some important aspects in the lives of these young people looking at a career in the food industry. "They

need to expose their palates to different things," she says and she believes all the new techniques (the foams etc) should be introduced into our cookery schools but a balance should also be established. "The students need to know what's out there and should master the latest techniques if we want to stay abreast of the international food game."

As a pastry chef par excellence (and have seen and tasted a lot of her work), her favourite is desserts. She opts for a combination of classical and elegance and as always, it is as much about taste as style.

If the kitchen is a place where you think you could make a career, remember that you will be feeding others and hardly get five minutes to

tuck in yourself. "The work is very physical and the hours don't encourage a social life but other than that, I love the restaurant as well as teaching future chefs." It's all about passing on her knowledge. And when she no longer wants to guide her young students through their kitchen paces, she wants to stay abreast of it will be on her terms.

When she opens her own place, it will be small, hands-on and she will be cooking from the heart. In the meantime, both her food and her students can be put to the test at the exquisite fine dining Prue Leith Restaurant at 262 Rhino Street, Hennopspark, Centurion, for dinner from Wednesdays to Saturdays. Call 012 660 3260 for bookings.

Article 1: (Pretoria News, June 21 2008)

Vreemdelinge betree vrouekoshuise sonder moeite

Adam Heyns

Koshuise vir vrouestudente is al lermens veilig. En dis klaarblyklik die inwoners se eie skuld.

'n Ondersoek deur *Kampus-Beeld* het skokkende feite onthul van meisies wat lukraak veiligheidshekke vir vreemdelinge oopmaak en hulle só toegang tot die koshuise gee.

By vyf van die agt koshuise kon dié verslaggewer tot by meisies se kamerdeure kom. Dit is meestal gedoen met die hulp van vrouestudente, onbekend aan die verslaggewer, wat die koshuise se veiligheidshekke oopgemaak het.

Prof. Roelf Visser, direkteur van koshuisaanleenthede en behuiging, het gesê hy is "regtig bekommerd" oor die laksheid van die studente. "As 'n student gevang word wat 'n baksteen voor 'n deur sit of vreemdelinge laat inkom, sal daar beslis 'n dissiplinêre ondersoek ingestel word. Indien die student skuldig bevind word, sal dit die einde van sy of haar verblyf in die koshuis beteken," het Visser gesê.

Mnr. Colin Fouché, direkteur van veiligheidsdienste, sê al die vrouekoshuise het goeie veiligheidsstelsels.

"Daar is enorm baie geld bestee om die koshuise te beveilig. Die stelsels is egter net so goed soos die swakste skakel.

"As die studente mense by die hekke laat inkom en klippe of asblikke voor die deure sit, kan ons niks daaraan doen nie. Studente moet kollektiewe verantwoordelikheid vir hul veiligheid aanvaar," sê hy.

Die skakels in die veiligheid-

stelsels van die koshuise is in die lig van die getuienis maar swak.

Elsje Blignaut en Marlise Moolman, albei HK-lede van Assterhof, was geskok toe hulle uitvind hoe maklik dit is om hul koshuis te betree.

"Ek het gister met hulle (die eerstejaars) daarvoor gepraat," sê Blignaut.

'n Student van Erika wat anoniem wou bly, het gesê sy het onlangs 'n *random* ou in haar gange gesien. "Ons toiletstiplet is die hele tyd opgelig en hierdie is 'n dameskoshuis!" sê sy.

Die koshuise is na bewering bewus van vreemdelinge wat deur die veiligheidsnetwerk glip.

'n HK-lid van Erika, Thumelo Lephala, vertel hoe 'n vrou verlede jaar deur hul gange ge-loop, aan deure geklop en glo artikels uit die oop kamers gesteel het.

By Nerina is die sekuriteit blykbaar beter. "Hulle steel nie in hierdie koshuis nie," beweer Lize Jordaan, primaria. Sy sê dit kan dalk veiliger wees omdat dit 'n redelik klein koshuis is en vreemdelinge maklik identifiseer kan word.

Die algemene indruk ná die ondersoek was dat meisies in die koshuise nie op hul hoede is nie.

Die koshuise waar die eerstejaars by die ontvangs 'n direkte uitsig op die deur het, was tot 'n mate die doeltreffendste om vreemdelinge uit te hou.

Diefwering op alle grondvloere, deure wat gesluit word en elke koshuis se enkele ingang, help wél om boosdoeners uit te hou.

Lees op bladsy twee hoe die koshuise geïnfiltreer is.

Article 2: (Beeld, 16 April 2008)



Universities, technikons heading for troubled times

MELANIE PETERS
and FIONA GOUNDEN

Departments of engineering and architecture at universities and technikons across the country face a serious shortage of lecturers and resources and are running into trouble.

Academics complain that tight budgets, dwindling numbers of lecturers, swelling student numbers, a lack of resources and a struggle to fill posts because of poor salaries are the main problems facing their departments.

A report on the gravity of the situation in the engineering sector is currently before the Joint Initiative on Priority Skills Acquisition (Jipsa), a government programme to start a nationwide campaign to train graduates and unskilled people in different fields of work.

There are close to 300 vacancies in engineering departments in universities and universities of technology in the country. Added to that, the report shows, a further 1 000 academic staff are needed to cope with an increase in students.

The report showed that there

was one lecturer for every 56 students, where the international standard was one lecturer for every 25 students.

And a survey by the SA Institute of Architects, in conjunction with the joint initiative, shows that 80% of the country's architectural practices have shortages of 40%.

The University of Cape Town's head of civil engineering, Professor Mark Alexander, said they were working with a tight budget. It was all very well that the government had injected cash into some universities that had used the money to

build more lecture theatres, but this was not sustainable.

"We have real concerns around the country. We have increased student numbers. But we are finding it difficult to fill lectureships because we cannot compete with salaries in the private sector, which are 50% higher."

The university's department of architecture was facing similar problems.

Head of department Professor Lucien le Grange, warned that they were battling to accommodate the increasing number of students.

"We have increased our intake but are battling with a lack of resources. There are not enough studios and lecturers. A lot of the students need extra attention.

"There is a great demand for more graduates, but how do we meet this need with resources we don't have? It's difficult to fill posts because many of the graduates go into the private sector."

He said UCT's graduates were still highly regarded around the world. "But it will not necessarily stay this way because of diminishing resources."

Article 3: (Pretoria News, 9 August 2008)

PRETORIA NEWS WEEKEND

SATURDAY MAY 17 2008

Education is key to bridging the wealth gap – Zuma

SA will never unite if the gap between rich and poor is not bridged, ANC leader Jacob Zuma said in a speech prepared for delivery yesterday.

"We cannot have a united nation when the bulk of the country's wealth is retained in the hands of an extremely small minority," Zuma said at a University of Zululand graduation ceremony at Empangeni in KwaZulu-Natal.

"We cannot have a united nation when a significant section of our society remains in poverty, or do not have access to quality education, or still live without basic services like water or housing."

Zuma, who is chancellor of the University of Zululand, said the ruling party decided at its Polokwane congress in December that education should be the focus of a five-year social transformation pro-

gramme. "We are therefore examining all aspects of our education system, from early childhood development to higher education, from literacy campaigns to the training of artisans and learnerships.

"While we work to meet our immediate skills needs through initiatives like the Joint Initiative on Priority Skills Acquisition, we must build a school system that prioritises quality, access and excellence."

Zuma said one of the apartheid regime's worst evils was the lack of proper education to all.

"By determining that black South Africans should be prevented from doing anything more than the most basic manual labour, the apartheid regime severely stunted the development of our society.

"Through your efforts ... you have proved apartheid architect Hendrik Verwoerd wrong." – Sapa

Article 4: (Pretoria News, 17 May 2008)

Varsities close to capacity

Education Minister Naledi Pandor said in Durban on Thursday that the government hoped to achieve a higher education enrolment of 820 000 students by 2010 and increase that by a further 100 000 students by 2015.

However, investigations by the department's "enrolment planning process" showed that the higher education system was close to capacity as far as physical infrastructure and academic staffing resources were concerned.

Pandor said government was looking into expanding existing institutions and establishing new institutions.

She expressed concern that student fees had become an increasing portion of university income. In 2000 student fees accounted for 24% of university income and 29% by 2005. – Sapa

Article 5: (Pretoria News, 22 March 2008)