Macro Context
The study area is in Pretoria which falls under the City of Tshwane Metropolitan Municipality. Pretoria is the central business district (CBD) of Tshwane and also the administrative Capitol of South Africa.

Figure 35: Chinese girl.

Figure 36: Map of the world.

Figure 37: Map of South Africa.

Figure 38: Map of Tshwane.
Meso Context
Spatial Development Framework

Pretoria

GAPP Architects designed the Nelson Mandela Development Corridor. This area along the Apies River is the division between the eastern suburbs and the CBD.
The City of Tshwane Metropolitan Municipality proposed a development framework for Hatfield, stretching from Lynnwood Road to Church Street. The initiative is to intensify the density this area.
**Geomorphology**
Gravel, with a clay and silt covering, is mainly found in the Pretoria region.

**Hydrology**
The Apies River is the main river of Pretoria and flows northwards past the east side of the CBD. Other streams include Walker and Skinner Streams as branches of the Apies River.

**Ecology**
Tswhane forms part of the Highveld ecological region. It is identified by grasslands and thorn trees. Pretoria is known for its jacaranda trees, covering the streets with purple flowers during October. These trees dominate the campus.

**Topography**
Pretoria is geographically situated on the 25°44’S and 28°11’E. It is 1330m above sea level and is nestled between the Magaliesberg, Daspoortridge, Skanskop and Klapperkop. These ridges all run parallel to each other.

**Climate**
Pretoria falls in the Highveld climatic region. It mainly has dry mild winters and wet warm summers with afternoon thunderstorms during December to February. It has an average of 700mm rainfall per year.

The average daily temperature for winter (March to August) is at a maximum of 22 °C and a minimum of 11 °C and for summer (September to February) a maximum of 27 °C and minimum of 18 °C. Pretoria has east-north-easterly to east-south-easterly winds in the summer and southwest to northeast winds in the winter. The average annual humidity is 59%.

The solar incidence in Pretoria is 80% maximum sunshine in the summer and 67% minimum sunshine in the winter.

The vertical sun angle at summer solstice (21 March – 23 September) is 64.24° and at winter solstice (22 June) is 40.73°. (Holm 1996)

**Site analysis**
The study area under investigation is bordered by Duncan Road on the east side, Lynnwood road on the south side and Bumett Street on the north side. These roads are also the main arteries feeding the CBD from the eastern suburbs.

The University of Pretoria was founded in 1908, after Jan Smuts proposed a split from the Transvaal University College in Johannesburg. At the time of the founding, Transvaal was a colony of the British Empire. British architects, like Herbert Baker, who worked for the Department of Public Works had great influence on the architecture of the campus. (Fischer 1996:33)

In 1930 the university became an Afrikaans-language institution, after much protest from the staff and students. From then the campus buildings were designed by architects, like Gerhard Moerdyk, who maintained an Afrikaner culture and identity. (Fischer 1996:33)

The university is currently holding more than 50 000 students. The acronym TUC came from its first name Transvaal University College, and therefore a student from this university would be called a ‘tukkie’. (www.up.ac.za)

**Spatial Development Framework**
University of Pretoria Hatfield Campus
Holm Jordaan Group designed a development framework for the main campus.
Figure 43: Map of the campus indicating proposed framework by Holm Jordaan Group. Red building represent new additions to campus.
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Figure 44: Map of the campus indicating buildings and building uses.
001 The Administration building was designed by Brian Sandrock and completed in 1968 in the Brazil Modernism style. The nick name of this building is the “skip”, because of the distinctive prow-like projection.

002 The Engineering tower was designed by Brian Sandrock and completed in 1975 in the Neo-Brutalism style.

003 Agriculture.

004

006 The Aula was designed by Karel Jooste (Philip Nel Architects) and completed in 1958 in the Brazil Modernism style. The use of concrete was exploratory for its time. This building was the major venue for operas, ballets and dramas in the city until the State Theatre was completed in 1980.

008 The Old Merensky Library was designed by Gerard Moerdyk and completed in 1938 in the so-called Boere Deco (Art Deco period) style. The building has many symbols, empowering the Afrikaner Volk. The name derives from the biggest donor of the project, Hans Merensky, a mining and forestry magnate at the time.
The New Merensky Library (currently called the Academic Information Services) was designed by Louw Marais (Marquard & Kuhn Architects) and completed in 1975 in the Neo-Brutalism style.

Kaya Rosa was the first building on the campus. It is designed in a Victorian/European Eclecticism style.

Tukkiewerf was completed in 1925 in the Baker School style (Herbert Baker style). The architect of this building is unknown.

The Cloister Hall was designed by Gerald JC Bernhard and built by WL Jones and completed in 1944.

The Chapel was completed in 1925 in the Baker School style (Herbert Baker style). The architect of this building is unknown.

Student Centre.
The Visual Arts building (Old L.O. building) was designed by Burg-Lodge and Burg Architects and completed in 1974 in the Pretoria Regionalism style.

The Building Science building was designed by A.L. Meiring and completed in 1960 in the International Style. In 1973 D.S. De Beer made alterations to the building in a Neo-Brutalism style.

The Speech Therapy building (Old Weather Bureau Building) was designed by W.F. Fleischman (Department of Public Works) and completed in the 1930’s in the Bauhaus / International Style. This is one of the campus buildings representing Pretoria’s brick architecture.

The Drama building is designed in the Baker School style (Herbert Baker style). Boken Lier.
The information technology building (old education – law) was designed by Louw Marais (Marquard & Kuhn Architects) and completed in 1973 in the Neo-Brutalism style.

The humanity sciences building was designed by Brian Sandrock and completed in 1977 in the Neo-Brutalist style. This was the first Neo-Brutalist building on campus. The nickname for this building is the ‘konsertina’.

The theology building (old literature 2) was designed by Burg-Lodge and Burg Architects in the academic revivalism style. This building also represents Pretoria’s brick architecture.
The Musaion & Amphitheatre was designed by Brian Sandrock and completed in 1961 in the Brazil Modernism style.

The Electrical Engineering building was designed by Steyn & Viljoen in the Neo-Brutalism style.

The Old Arts building was designed by J.S. Cleland and P. Eagle (Department of Public Works) and completed in 1911 in the Baker School style (Herbert Baker Style).

The Old Chemistry building was designed by J.S. Cleland and P. Eagle (Department of Public Works) and completed in 1911 in the Baker School style (Herbert Baker Style).
The Economic & Management Sciences building was designed by Samuel Pauw and completed in the 1980’s in the Post-Modernism style. This building also represents Pretoria’s brick architecture and was the first Post-Modern building on campus. This building brought the scale of the Humanities building down to a more appropriate campus feeling.

The Conference Centre was designed by Samuel Pauw in the Post-Modernism style.

New Law Faculty was designed by Kruger Roos Architects and completed in 2002. The building has won numerous national architectural prizes.

New Lecture Halls was designed by Earthworld Architects and is currently under construction.

The Zoology building was designed in the Baker school style (Herbert Baker style).
The Geography building was designed by Brian Sandrock in the Dutch Modernism style (brick building). 

The Student services building (Old Kollege Residence) was designed by the Department of Public Works and completed in 1915 in the Neo-Romanesque style.

The first Natural Sciences building was designed by Steyn & Viljoen Architects in the Neo-Brutalism style.

The Mineral Sciences building was designed by A.L. Meiring and P.R. Nel and completed in 1955 in the Brazil Modernism style.

The second Natural Sciences was designed by A.L. Meiring & P.R. Nel and completed in 1955 in the Brazil Modernism style.

The Chemistry building was designed by Moerdyk & Watson Architects and completed in 1943 in the Dutch Modernism style. This building also represents Pretoria’s brick architecture.
The Home Economics building (Old Agriculture) was designed by J.B. Dey (Department of Public Works) and completed in 1920 in the Baker School and Cape Dutch Revival styles. This was the first brick building that represented Pretoria’s brick architecture.

The Technical Services building was designed by Tectura and completed in 1975 in the Neo-Brutalism style.

The Mathematics buildings (Old Administration) was designed by Gordon Leith and completed in 1931 in the Mannered Neo-Classicism style. (Fischer 1996)
Vehicular and pedestrian routes

The campus aims to be pedestrian friendly, by minimising vehicular traffic. All students have to park outside the campus, but this tends to be a security issue. A number of proposed car parks will solve this problem. A series of taxi and bus stops surrounds the campus, making it easier for students and staff to travel. A shuttle service from the residences to the campus has also been put into place and is used to its full potential. A rapid bus service between the eastern suburbs and the CBD also gives opportunity for trouble-free commuting.

The Gautrain Rapid Rail station in Hatfield, currently under construction, will give accessibility to the campus for students travelling from Johannesburg.

Legal Regulations

The UP campus has a permissible floor area ratio of 2.5 and a height restriction of 6 storeys (+/-18m).
Figure 92: Map of campus showing pedestrian and vehicular routes.
Site analysis

The proposed site under investigation is located on the northern edge of the campus ring road. This section of road used to be part of Duxbury road, connecting the student centre with Duncan road with a vehicular access road. The road has been closed since then, for security reasons, but is still used by students walking or cycling from the university residences. It is one of the main pedestrian arteries feeding the campus from Hatfield.

The site is surrounded by a collection of old and new buildings, some currently under construction. The cloister complex (consisting of the chapel, Tukswerf building and the cloister hall), student centre and new lecture halls.

The Student Centre, being the western border of the site, serves as the main gateway to student activities. Unfortunately this building has proven not to respond to the context or student requirements. Students even have to walk past the delivery yard to enter the centre. A new student centre as thesis project (2008) is proposed by Francois Malan.

The function of the cloister complex has changed to a mini-student centre since 1984. It accommodates the Student Council, the Central Rag Committee, the Bureau for Student Development and the Perdeby (the Rag newspaper). The chapel is used for student weddings and probation sermons by prospective ministers. The cloister hall is used for socials, performances by the drama students and partially as a cafeteria. (Clarke 2008) The functions held in these buildings compliment and give motivation for the proposed health and wellness centre.

The new lecture halls, currently under construction, across the road on the northern edge of the campus, create a square between itself, the chapel and the cloister hall; introducing the walkway leading towards the south, anew.

From this analysis a language for the proposed building has been derived. Brick buildings and Brazil Modernism dominates the campus and can be used in an appropriate contemporary way, as can be seen from the new Law faculty and in-the-making lecture halls.
Figure 95: North elevation of the chapel.

Figure 96: North entrance to Economic and Management Sciences building.

Figure 97: Perspective of the new Law faculty.

Figure 98: Three dimensional sketch of the chapel.

Figure 99: Front elevation of TUKS health.

Figure 100: North elevation of TUKSwerf.

Figure 101: West elevation and entrance to cloister hall.

Figure 102: Perspective of existing student centre.