1. PROBLEMS AND GOAL STATEMENT

1.1 Problem Statement

In accordance with Government’s policy regarding the restructuring of higher education in South Africa, the University of Pretoria (UP) incorporated the former Vista University into its structure since January 2004. The University of Pretoria Mamelodi campus is located in the south/eastern part of Mamelodi on the corner of Hans Strijdom Avenue and Hinterland Street.

Currently the UP Mamelodi campus offers selected academic tuition; student numbers are limited and several facilities are underutilized. The campus is isolated from the surrounding neighbourhood and fenced off with a concrete security barrier. Access to the campus can be obtained through one main entrance on Hinterland Street. The previous Vista campus, built during the apartheid political dispensation, served a specific purpose for that period. Currently, with declining student numbers and most students prefer studying at the main campus of the UP, facilities are under utilized. Buildings and facilities are, however, in excellent condition and well maintained.

On an urban level, the campus functions as an isolated and disjointed entity, alienated from the surrounding urban community with social and virtual boundaries constraining both the university and urban environment growth.

The problem statement to be addressed in this study, therefore, consist of the following interrelated design issues:

- The urban qualities of the UP campus and its integration with the residential urban environment and;
- The residential environment surrounding the UP Mamelodi campus, which is a fast growing residential node with a growing informal dwelling population and;
- The university’s role in the regeneration of the residential urban environment.
Figure 1-3 illustrates the project location within the context of Mamelodi. The campus, indicated with blue, is located on the corner of Hans Strjodom and Hinterland Road. Residential growth and informal trading characterize the urban environment. From the aerial view, it is evident the campus is fenced off and alienated from the surrounding environment.
Figure 1-4 illustrates the specific site, highlighted in blue, allocated for this project. The site with its surrounding context can be seen on these images. Movement corridors on the western and southern edge with residential on the northern and south/western edge of the site.

1.2 Goal Statement

This thesis seeks to present the following:

- An Urban Design Framework for the urban regeneration of the UP Mamelodi campus into an university village by integrating human settlement and psychosocial qualities, public and private sector interfaces and social cohesion on the campus, and;
- A framework for the site provided that includes a mixed use development with housing options, a Housing Support Centre that connects the campus and residential environment and retail opportunities with formal and informal trading.

In addition to these, the argument examines appropriate design responses for redefining the campus into a housing research precinct and connecting the academic institution by means of a Housing Support Centre with housing projects. The proposed project acknowledges the need to see housing as:

- A design instrument to regenerate urban environments, and;
- An instrument of spatial restructuring by creating a sustainable human settlement.
1.3 Research Questions

The first question, that guides this research, is what the impact of urban regeneration would be on the integration of the UP Mamelodi campus within the urban context of surrounding residential areas. The unique character of the campus, diverse surrounding dwelling practices and cultural and social differences of the inhabitants of the area should be incorporated in any research.

The second question deals with spatial qualities. What psycho spatial qualities need to be addressed in order to facilitate optimal human sustainable qualities and dwelling conditions for the thousands of potential dwellers on the campus interface?

The third question deals with housing support. Could a Housing Support Centre, jointly managed by the University and a Housing Institution, facilitate and support the dwelling process of potential dwellers. Could a Housing Support Centre contribute to the regeneration of the campus into a housing precinct with academic discourse and in the process contribute to joint University and community involvement in the housing process of low to medium low-income dwellers?
1.4 Hypothesis

The hypothesis that drives this thesis is the principle that housing be seen as a fundamental design tool in the regeneration of urban environments. A campus interface with mixed use, medium density housing, a Housing Support Centre with linkages between the university and the residential environment and pedestrian circulation routes connecting fundamental nodes, would result in a regenerated urban environment. The Mamelodi campus could be part of a regenerated housing precinct, with qualities of an urban human settlement.

1.5 Importance of the Study

Of those in need of housing in South Africa, almost 69% earn less than R1500 a month. These potential dwellers could be regarded as a vulnerable section of the dwelling community. In the past, many of these dwellers had been exposed to bad policies, inferior building practices and financial exploitation. Not only do they need financial assistance, but also administrative, technical and logistical support, as well as legal, and moral support, financial support, technical support etc. The University of Pretoria Mamelodi campus, being situated in the middle of a housing node, should have a Housing department with academic housing discourse. Linking the Housing Department with a Housing Support Centre, would result in an academic housing discourse, continued housing research, policy making, implementation, community involvement, global housing design and overseeing housing projects of quality.
Housing for the urban poor should not be seen in isolation from the valuable public assets that constitute and urban public environment.

The intention of this study is to emphasize the interrelationship between housing needs, human needs, housing support, dwelling issues, housing research, policy making and particular housing responses to the latter. The concept of house as physical dwelling form, compared to home being an emotional experience based on a meaningful relationship between dwellers and their dwelling place, is discussed.

Housing for the poorest of the poor, should be properly administered. This housing process could be administered and facilitated by means of housing support in the form of information, assistance and skills transfer.

### 1.6 Delimitations

The housing process proposed in this thesis, will exclude the following:
- Legislation, administration, funding, municipal approval and legal process regarding social housing and medium density housing projects.
- Testing of soil conditions. Soil conditions to be taken as optimal for the proposed structures.

### 1.7 Client Profile

The proposed Housing Support Centre is to be a joint venture by the University of Pretoria and an accredited Social Housing Institution. Social rental housing units developed on the site would to be the housing rental stock of a Social Housing Institution. Co-operative housing units to be developed on the site would be the collective property of a housing co-operative, with an association of people who collectively own and govern the housing units.
Social Housing Institutions (SHI) develops, own and manage its own rental stock without any intermediary associations. According to the Government’s draft policy on Social Housing (2003) Social Housing Institutions are expected to:

- Develop and/or manage housing stock for low to moderate-income residents
- Promote the creation of quality living environments for low and middle-income residents
- Reinvest any operational surpluses in further housing development
- Initiate accreditation application and comply with the accreditation requirements of the Social Housing Accreditation Board
- Consult with local governments with a view to developing social housing stock within the framework of the IDP of the areas within which they operate
- Consult with residents through meaningful participation
- Inform residents on issues relating to consumer protection
- Observe and operate within a best practice and value regime as supported by national policy
- Comply under all conditions with the Ministerial National Norms and Standards in respect of Permanent Residential Structures, the National building Regulations and the technical standards imposed by the National Home Builders Registration Council, where applicable.

Approved SHI’s will thus be entitled to free in-kind Social Housing Foundation capacity-building support for the purpose of submitting its accreditation application and business plan. A pre-establishment grant will also be made available through Social Housing Foundation.

After provisional accreditation, an SHI will be entitled to a combination of establishment cost and capacity building grants (to be specified in the business plan to be approved and out of which it can pay for further Social Housing Foundation support, if so required) for a maximum period of five years to full accreditation. Capacity building cost items will be eligible for grant support as per Social Housing Foundation costing (on reimbursement or voucher basis).
1.8 Assumptions

The Housing Support Centre should be a joint venture between the University of Pretoria and an accredited Social Housing Institution. Funding for social rental residential development on Hans Strjidom Drive should come from combined investments by the Gauteng Housing Department, Gauteng Partnership Fund, the National Housing Finance Corporation and a Social Housing Institution. The local authority, City of Tshwane, will provide the land.

A further assumption is that a Capital Restructuring Grant system for social housing be put in place. The innovation in this system is that it provides capital grants to support social housing projects of a particular description and delivery standards in selected restructuring zones.

The assumption to be made is that the site provided be located in a restructuring zone. If not, then exemption of this condition would be granted, as it was the case with some mega social housing projects like the N2 Gateway project in Cape Town. The assumption is to be made that cost grants be provided to the SHI by the government through the MEC/provincial housing department/Capital Restructuring Grant of R125 615-00 per unit, upon provisional accreditation, at a normative level adequate to cover institutional overhead expenditure.

The residential units are expected to have a social impact on the area.

Figure 1.9 Image by author, 2008, the site seen from Hans Strjidom Road
1.9 Existing Urban Framework

Figure 1.10 illustrates the existing and potential housing increase in the urban environment. The campus is alienated from the urban environment with visual, political, and social barriers. No linkages exist between the campus and the environment. Fundamental nodes in the area are cut off from the campus by means of a concrete fence and result in poor pedestrian circulation, linkages, social spaces, corridors and retail opportunities.

The campus has only one entrance on Hinterland Road with a ring road system running along the fence, serving neighbourhoods next to the campus. Hans Strjidom Road serves as main entrance to the eastern suburbs of Mamelodi, but also functions as the main activity and transportation corridor/spine running through the entire eastern Mamelodi. Figure 1.11 illustrates the secluded and constrained urban qualities of the area. The campus interface is secured with a concrete fence and inhibits social cohesion and the formation of a human orientated settlement.

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Figure 1.10 Image by author, 2008, Illustrating residential growth in an eastern direction

Figure 1.11 Image by author, 2008
1.10 Proposed Urban Framework for Mamelodi

For purposes of this thesis, the intension is to integrate the Mamelodi campus with the urban residential environment and to generate a positive urban environment with residential projects, public institutions, public spaces, movement patterns and corridors.

The proposed urban framework (Fig 1.12) includes regeneration and restructuring strategies based on the principles of human settlements. Regeneration can be defined as the renewal of the existing environment with the purpose of improving their present condition and transforming it into a sustainable human settlement.

The Mamelodi campus should be part of an integrated sustainable human settlement with various housing, retail, recreation, education and community development opportunities. The campus must be part of a university village where the urban fabric is designed at a human scale and where buildings become nodes of social and academic interaction. Exterior spaces could become sociable spaces.

The Hans Strjidom Avenue interface serves as important node/catalyst and should be explored in terms of regenerating and integration proposals. Slowdown of traffic in favour of pedestrian

Figure 1.12 Group Urban Framework, 2008
circulation and movement corridors could see the emergence of new public spaces. Currently, the area is underutilised and underdeveloped with isolated spaces. The area lacks spatial cohesion and is somewhat spatially disjointed. The latter is to contribute to the challenging socio-spatial qualities of this urban environment.

The campus and Hans Strjidom Avenue interface should be treated as a social space with urban design qualities.

1.11 Design Proposal for the Given Site

On a design level, the following design interventions are proposed:

- A Housing Support Centre (HSC), a joint venture between the University of Pretoria and a Social Housing Institution. This HSC could function as link between the campus, surrounding urban residential developments and future social housing projects in Mamelodi.
- A Social Rental Housing development of medium density to include mixed-use rental accommodation (social rental housing).
- A market area linking the HSC and existing taxi-parking area on Hinterland Road.
- Proposals are made for further housing projects such as co-operative housing with co-operative ownership and incremental housing. Incremental housing to include informal settlement upgrading and self built housing projects.