

**THE DEVELOPMENT OF HIGHER-DENSITY LOW-INCOME HOUSING IN THE CAPE  
METROPOLITAN AREA: A CASE STUDY OF PHILIPPI EAST**

by

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## Declaration

I declare that *The Development of Higher-Density Low-Income Housing In The Cape Metropolitan Area: A Case Study of Philippi East* is my own work, that it has not been submitted for any degree or examination at any other university, and that all the source materials I have used or quoted have been indicated and acknowledged by complete references.

.....

15 August 2002

Selwyn Walter Willoughby





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## Abstract

Cape Town, like other South African cities, experiences phenomenal population growth as a result of natural increase, rural-urban and intra-urban migration. The population growth is exceeding the ability of all spheres of government to provide adequate housing. In an attempt to rapidly respond to this crisis, subsidies are provided to qualifying beneficiaries to build free-standing dwellings. Simultaneously the Metropolitan Spatial Development Framework (MSDF) proposes a vision of an integrated functional city by proposing to increase residential densities in areas with the potential to improve the quality of life of the populations. The current low-income housing delivery programme is thus conflicting with the vision of the MSDF.

The aim of this research is to assess the feasibility, and to identify enabling mechanisms of building low-rise, higher-density low-income residential dwellings in Philippi East, a developing metropolitan node. Philippi East is the only node in the metropolitan area that is underdeveloped and located centrally within the poorest section of Cape Town. There are various concerns relating to housing within this area, however, the research focuses on three inter-related areas of concern, namely, access to appropriate urban land, appropriate housing density and access to finance.

Central to the research is the identification of vacant land and the classification of the identified land in terms of its strategic value. The identification of strategic land determines the type of density that is appropriate and this in turn will establish the financial parameters for such a project. The research has found that in Philippi East, most of the appropriate land for higher-density low-income land is privately owned, and that current legalisation is focussed on accelerating the release of publicly owned land. Thus, the legalisation will have little effect on the study area, where land is urgently needed for housing. Non-legislative measures have been identified as alternative mechanisms to secure private land for housing. Philippi East as a study area, is strategic in terms of the MSDF criteria, and therefore its residential densities could be developed to maximum recommendations. However, the contextual situating does not allow for high-rise developments, but rather a low-rise higher-density built form with a net dwelling density of approximately 100 d/ha.

The research concludes that the short-term benefit of the subsidy is not complimenting the long term vision of the city, i.e. the subsidy amount by itself allows for the construction of a small freestanding dwellings that is perpetuating sprawl within Philippi East. To construct low-rise higher-density dwellings larger than the current 10m<sup>2</sup> freestanding dwelling, additional finance is required. The research identifies that all spheres of government must play a pivotal role in mobilising additional public and private funding to ensure that the metropolitan node develops as intended by the city vision.



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## Key Terms

**Activity corridors:** A Band of high-density mixed-use development concentrated along a public transport route.

**Activity spines:** Refers to the central road within the corridor.

**CCT:** City of Cape Town

**CMC:** Cape Metropolitan Council

**Density:** The concentration of people or buildings, usually expressed as per hectare.

**DFA:** Development Facilitation Act

**DoH:** Department of Housing

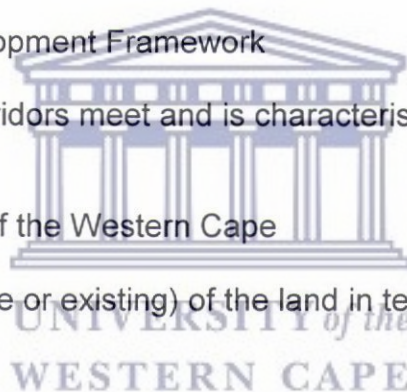
**Land-use:** The actual use of the land at any given time.

**MSDF:** Metropolitan Spatial Development Framework

**Nodes:** An area where activity corridors meet and is characterised by high-density mixed-use development.

**PAWC:** Provincial Administration of the Western Cape

**Zoning:** The designated use (future or existing) of the land in terms of a particular scheme.



# CHAPTER 1



## 1.1 Introduction

South Africa has an acute shortage of formal low-income housing. To address this problem, the provision of housing for low-income families is a main priority for all tiers of government. However, the current approach to state assisted housing delivery is promoting urban sprawl and thus exacerbating the socio-economic problems of the poor. Increasing residential densities of low-income housing developments can contribute towards creating sustainable neighbourhoods and ultimately a functional city.

A critical re-evaluation of the present housing policy and delivery mechanisms is needed if it is to meet the demand. The present one-house per plot strategy is not an environmental, social and economic sustainable approach to low-income housing delivery. A comprehensive paradigm shift in defining housing is required. South African society needs to accept the spatial limitations of development. Providing greater access to social, economic and recreational services necessitates the compaction of existing and new urban areas, while the spatial form of residential areas has to be redefined if greater equity is to be achieved.

It is therefore imperative to search for viable alternatives to assist the current delivery mechanism. With the scarcity of well-located existing land within the current urban edge, compaction is extremely important. The long-term benefits of higher density living environments outweigh the short-term cost benefits of the current low-density urban form.

## 1.2 Research Problem

The success of South Africa's national housing policy is measured by the quantity of dwellings constructed. The urgent need of millions of homeless people is perpetuating the belief that the construction of a formal freestanding dwelling is the fundamental solution to the housing problem. Although the delivery of houses is occurring at a steady pace, the quality of development does not contribute to a healthy living experience. The healthy living experience would include a safe environment, access to transport, recreational, employment, health and social

opportunities and a dwelling that meets the requirements as set out by the National Building Institute (NBI).

Given South Africa's urban development patterns, it would not be possible to locate all low-income residential developments close to all the opportunities as listed above. However, where the opportunity exists, new low-income residential developments should be developed to afford the maximum number of people the opportunity to a quality living standard, which could be achieved by creating higher-density, low-income residential development within nodes and corridors as identified MSDF (CMC, 1996). The MSDF is a policy framework that aims to redress the imbalances of apartheid spatial development. It is within these nodes and corridors that the MSDF proposes to increase public transport thresholds, employment, and residential and social opportunities.

Private development along corridors and within nodes always optimises space by creating higher-density development. However, within proposed and emerging corridors and nodes not located within the more affluent sectors of our cities, the state should be proactive in ensuring low-income higher-density residential development. South Africa does not have shortage of land, but rather a shortage of suitable land for living. It is thus the suitable land that must be treated as a finite resource and optimised for use. The research problem is to identify the constraints of low-income higher-density residential development and to propose measures of facilitating such development.

### **1.3 Rationale for the Study**

The need to provide housing to South Africa's low-income population is one of the most pertinent challenges facing the state. During the run-up to the 1994 national elections, housing became highly politicised and voters were emotionally exploited with promises of formal housing provision. The Reconstruction and Development Programme, estimated the backlog to have been at 1.3 million in 1990 with an additional 200 000 units added per year (ANC, 1994). By 2001, the backlog should approximately be 3 000 000 houses.

The reality today is that the state has not delivered the actual number of houses as promised. The official figures released by the Department of Housing (DoH) (RSA, 2000a), in February 1998, indicates that 235 709 houses have been built since 1994, which is occurring at a slower pace than the promised 1 million within five years as promised in 1994 (Electronic Mail & Guardian, 1998).

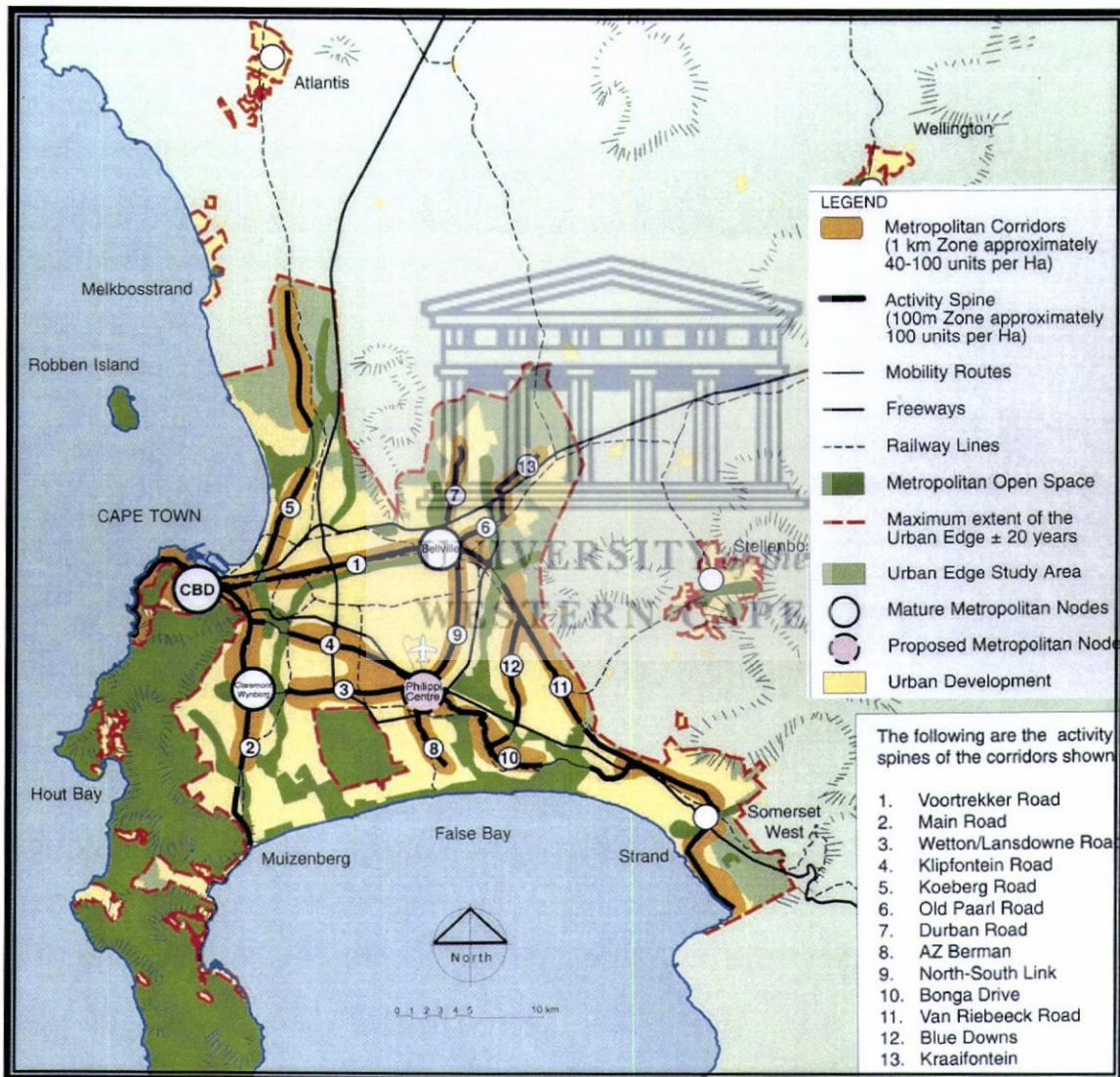
The major emphasis of the state's housing policy is to provide a single-housing unit on an erf, with home ownership as the ultimate goal which has created bleak matchbox landscapes rapidly turning into slum areas. The search for alternative forms of shelter, affordable to the poor segment of the population and the declining welfare state, expressive of society's needs, is imperative. It is the exploration of alternative forms of compact shelter close to affordable transport, employment, recreational and social opportunities that could lead to greater equity within the CMA.

The peripheral location of the poor has led to the reproduction of urban poverty and the alienation from all social and cultural functions associated with the urban areas. The MSDP attempts to create denser living environments close to or within corridors of development. In an attempt to locate as many people as possible within these corridors, the existing space needs to be utilized to the maximum capacity. The process of densification would allow more people per hectare than is commonly the norm.

The densification of urban areas, as an option of compact shelter provision, has not received the necessary serious attention in South Africa. It is important to investigate the residential densification of areas that have economic and social opportunities for many of the poor people. The investigation into low-income higher-density residential housing is focused on three distinct but interrelated areas of access to land, housing density and finance. The identification of suitable land will inform the appropriate housing density, and this in turn will have an impact on the required finance for a higher-density housing project.

## 1.4 Study Area

The study area is Philippi-East. It is in the centre of the metropolitan region and is the location of a fourth node of development, as identified by the MSDF (Map 1.1). As an identified node of development, land should be optimally used as a resource for mainly residential and commercial land-uses. The node is linked with other nodes via corridors of development with intense public transport infrastructure running between them.



Map 1.1 The Metropolitan Spatial Development Framework

Source (CMC, 1996)

Philippi-East, unlike the other three nodes of development (Cape Town, Wynberg/Claremont and Bellville) is the only node, which is underdeveloped and

located in the poorest section of the metropolitan area. The availability of vacant land provides the opportunity to develop higher-density residential development. The Cape Town, Wynberg/Claremont and Bellville nodes have developed as a result of free market forces. However, the Philippi East node requires strong government (national, provincial and local) input to drive the development of the node, and so gain private investment confidence. The current low-density low-income residential development is not conducive for private investment. The upliftment of many of Cape Town's poor will be greatly assisted by the development of the Philippi East node.

### **1.5 Aim and Objectives:**

The aim of this study is to examine the feasibility of promoting the development of higher-density low-income residential development within a developing metropolitan node. The following are objectives of the study;

1. To examine current developmental policies related to the area,
2. To analyse land-use and demographic aspects of the study area through the use of GIS,
3. To identify measures to accelerate the release of urban land for low-income higher-density residential development,
4. To identify appropriate residential housing design and density,
5. To identify additional financial arrangements, and
6. To make recommendations on low-income housing densification in the study area.

Through the objectives, the research identifies the constraints of local, provincial and national government policies impeding densification and highlighting the elements promoting it.

### **1.6 Philosophy**

The search for a philosophy in the late 20<sup>th</sup> century is by no means an easy task. The rise of post-modernism has provided many complications to the stable philosophies. Thus, the embedding of research within a philosophical stance in the late 20<sup>th</sup> century is not merely a process of selecting a theory, be it Marxist, or positivistic or neo-liberal. It entails the search for objectivity and truth in a culture

that directs its energy towards the accumulation of capital. Post-modernism, being the expression of late capitalism, has geared every aspect of culture towards profit (Davis, 1989). It is within this philosophy that there is a need to establish means of generating knowledge that questions the existing order to provide viable economic and pragmatic alternatives for the population that would be economically viable and pragmatically acceptable.

Within the 21<sup>st</sup> century, a Marxist philosophy cannot be accepted to examine and criticise the expression of culture, as it exists today. Historical materialism can no longer be viewed as the only platform from which to criticise and provide alternatives for change in society. Capitalism is gaining strength, contrary to Marxist belief that a revolution by the working class will tear the internal operations of capitalism.

Montag (1989), states that Marxist analysis of history, is a philosophy that does not allow other philosophies to provide answers to fundamental difficult questions. Unmitigated Marxism can no longer be accepted as the only explanation for the unequal distribution of resources (Callinicos, 1989). It provides some understanding of the historical reasons for today's problems, but within the age of globalisation, one narrative cannot be accepted to be the only explanation. The philosophical stance of this research has to take cognisance of the myriad of thoughts applicable because of the complex nature of society. The adoption of a postmodernist approach to research must be viewed as crucial, if there is a strong commitment to be all-inclusive.

It is apparent that South Africa cannot claim to be fully part of the postmodernist world, however a large portion of the urbanised communities is part of this age. Public participation and the drive to generate and make information more accessible are signs that South Africa's urban areas are on a post-modern track. Thus, to critically evaluate the current housing policy, delivery mechanisms and products, as well as proposing alternatives within the global capitalist world order, would require a neo-Marxist perspective. As mentioned earlier, the traditional Marxist analysis would not suffice. Therefore, what would be important here, is to analyse the situation using Marxist critique, while acknowledging the importance of cultural logic of late capitalism. Although Marxism is being used to interpret the situation, it will be



done within the framework of postmodernism, which acknowledges the diversity of South Africa's society and propose alternatives, which can contribute to the sustainable generation of commodity to help strengthen South Africa's place in the global village.

Accepting a post-modern stance for this research is supported by the assurance that South Africa is, in fact, changing economically to embrace the process of globalisation and, to accept the narratives of all people and psychologically moving from paranoia to schizophrenia in an attempt to understand the complexities. The paranoia of South African society has had a damaging effect on the acceptance of difference and slowly giving way to the acknowledgement of cultural and socio-economic diversity, important for the spatial reorganisation of the spatial economy.

## 1.7 Research Design

The aim of this research is to assess the sustainability of higher-density low-income housing delivery within a Philippi-East metropolitan node of development. The MSDP only proposes the guidelines on densification, and acknowledges that a coherent policy for the city must be formulated. The research endorses the principal of densification, but firstly need to establish whether Philippi East is appropriate and then to identify enabling mechanisms.

To address the research problem, a sequential four phased approach is followed. The first phase (chapter 3) is an analysis of Philippi East. All major developmental policies are analysed to provide a contextual base for understanding why Philippi-East is an important area to develop. Using a GIS, spatial data, obtained from the City of Cape Town, is analysed. The information derived from the data provides insight into current settlement trends as well as the developmental potential of the area to accommodate higher-density housing. The analysis is a prerequisite to establish whether Philippi East is suitable for higher-density low-income housing. Through determining the suitability, the analysis also forms the basis upon which to identify the areas of intervention for facilitating appropriate higher-density low-income residential development.

After establishing the suitability of Philippi East, the appropriate enabling mechanisms are identified. These are explored in subsequent phases. The second phase (chapter 4) is an analysis of legislation to assist with the rapid release of urban land. The examination of legislative and non-legislative measures provides a framework for developing an accelerated land release procedure. Phase three (chapter 5) examines the motivating factors for densifying Philippi East. This phase concludes with recommendations on the appropriate built form for the study area. The need for additional finance to build higher-density residential units is the focus of the next phase in the research process (chapter 6). The cost implications are examined and a proposed strategy for accessing additional funding is made. The research culminates with the synthesis and recommendations for densification (Chapter 7). Figure 1.1 illustrates the conceptualisation of the study.



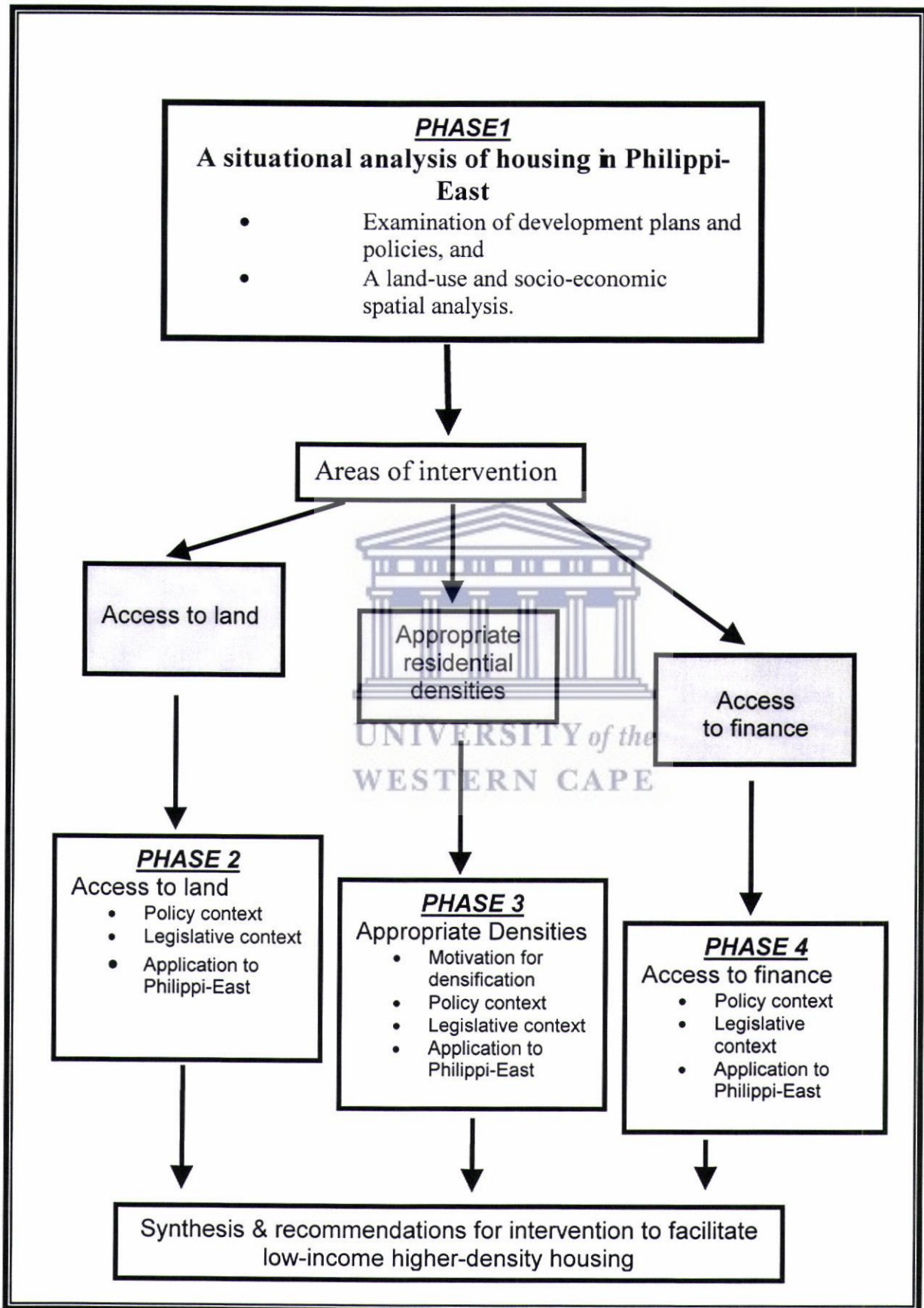


Figure 1.1 Research conceptualising

## **1.8 Limitations of the study**

Research into housing densification, especially low-income housing, can be divided into many highly specialised fields of inquiry. This study aims to explore the necessary national, provincial and local government logistical and institutional arrangements that can promote and inhibit densification of low-income residential development and then make recommendations for intervention approaches.

The study is focused on residential development because it is the major land-use in any given city. The study will not go into detail on dwelling and layout design, as this requires technical knowledge, which is beyond the scope of this research.

## **1.9 Contribution to the Field of Knowledge**

The existence of geography, as an academic discipline is warranted by its contribution to society. In recent years this contribution became questionable, as geography had to reposition itself within the restructured South African society (Hart, 1993; Smith, 1995; Van Der Merwe, 1996). The major task for geographers is to intensify the investigation to alleviate poverty, while simultaneously addressing all other human concerns. If poverty remains and grows, the entire living environment would deteriorate for all. According to Thrift (1996), geography has become the discipline in which all problems are synthesised to come up with answers on how to improve human conditions, while simultaneously saving the earth. In essence, geography should become more developmental in nature and move away from being merely descriptive.

Housing, being a fundamental cornerstone of any society, provides geographers with the opportunity to employ the discipline for the attainment of socio-economic equity. Housing, being vital to human existence and reproduction, constitutes a basic need in all societies. This research elucidates alternative measures of producing sustainable living environments for the urban poor and simultaneously illustrate how geography, as a discipline could be proactive on basic fundamental needs of society.

**CHAPTER 2**



**LITERATURE REVIEW**

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## **2.1 Introduction**

In South Africa, the production of space was guided by capital accumulation, class and race consciousness, and has thus led to unequal distribution of resources. The spatial segregation of people has resulted in an urban pattern, which is unique to this country. In most of the developing world, cities are highly congested, and strategies are sought to alleviate this congestion. In South Africa, a need exists to compact cities.

The South African urban dichotomy is characterised by predominantly opulent “white” suburbs contrasted with the sprawling “black” townships. The wealthier urban sector has access to all urban services, and where appropriate higher urban densities are created at points of intense urban services, i.e. within nodes and corridors of development. The townships generally do not have full access to urban services and this is coupled with an inefficient public transport system. The townships are characterised by low-density formal urban form and high-density congested informal urban form. To combat the problem of urban sprawl, an increased formal urban development density is required. This must be coupled with the development of an efficient public transport system. The predominant urban culture of freestanding dwellings, coupled with current government housing policies is perpetuating urban sprawl. The potential exists for low-income residential developments in strategic areas to be developed at increased densities.

The restructuring of South African society required new legislation. To this effect, the legislative framework around the functions of government were changed. It is therefore imperative to examine the legislation guiding the provision of low-income housing and how this relates to government initiatives to create sustainable functional cities. Within the context of facilitating higher-density low-income housing on strategic land, the review of literature will contextualise the need for higher-density residential dwellings, the access to land and the associated problems and the financial concerns facing low-income communities.

## **2.2 The Context of Densification**

### **2.2.1 Habitat II Agenda**

The Habitat Agenda global call for action provides a framework for cities to promote

sustainable human settlements with adequate shelter, a healthy and safe environment (UNCHS, 1996). Reviewing the progress South Africa has made to date, the DoH (RSA, 2000a), has identified a vision for cities in 2020 which include;

- Adequate housing and infrastructure and efficient services to provide households and business a basis for equitable standards of living, and
- Integrated industrial, commercial, residential, information and health, educational and recreational facilities which provide easy access to a range of urban resources.

This will be financed by government subsidies, by the mobilising of additional resources through partnerships, forceful tapping of capital and by employing innovative off-budget methods (RSA, 2000a).

It is recognised that this is an aspiring vision, and that the reality of urban sprawl and the consequent disparate urban structure, where the poor is separated from the urban core, is the main obstacle for this vision. To address this obstacle, the debate of land is raised and in particular, a debate on access to appropriate strategic land for intense development. The DoH recognises that attached to accessing land, is the problem of land invasion and its impact on sustainable development.

Within the context of the current market economy, the viability of creating sustainable compact cities is questioned because the measure and extent of poverty is a major concern for developing sustainable urban initiatives (RSA, 2000a). Policy makers must thus find new alternatives that would make a compact city affordable to the state and citizens and attractive to the private market.

### **2.2.2 Legislative Framework**

Legislation was enacted to ensure that spatial reorganization of urban areas occur through the integration of the disparate urban form. The Municipal Structures Act (RSA 2000b) provided the context for the spatial re-form of local government. This Act ensured that each parcel of land falls within a municipality. Prior to this Act, tribal leaders, without interference of local government, could govern land. The Municipal Systems Act (RSA, 2000c) focuses on the internal operations of a municipality. The intention of this Act is to give effect to the vision of developmental governance by providing "... core principles, mechanisms and processes that are necessary to enable

municipalities to move progressively towards the social and economic upliftment of communities ..." (RSA, 2000c: 7). The Act describes six core elements that are important in achieving developmental governance. The elements include participatory governance, municipal powers and duties, integrated development planning, performance management, human resource allocation and organisational arrangement.

Although all the elements of the Act are crucial for an effective and efficient municipality, it is the integrated development planning (IDP) element that provides the long-term vision for development.

(a) Integrated Development Planning (IDP)

IDP is the process whereby all departments, within a municipality, coordinate their strategic planning to achieve common goals. The Act stipulates that it must focus on the "... municipality's most critical development and internal transformation needs" (RSA, 2000c: 21). The municipality must also assess the critical needs of the communities and then compile a plan for the term of office. The Act further states that the IDP must be aligned with national or provincial initiatives. This approach will ensure coordination of planning activities across boundaries and between different spheres of government.

The Act also provides guidelines to assist in the process of identifying those development goals. The process must include all communities and business. The participative process will ensure that the developmental needs of role-players will be addressed, as well as to allow the municipality to build links with all sectors that it serves. An IDP for metropolitan Cape Town will have to focus on improving education, health services, access to housing, basic services and public transport.

Once the vision and objectives of the IDP are established, a City Development Strategy (CDS) will have to be compiled. The aim of the CDS will be to give substance to the IDP. The IDP will identify broad goals, but it is the CDS that will bring the community, the business sector and the municipality together.

(b) City Development Strategy (CDS)

A CDS is a new approach to managing cities. It is based on participatory governance.



The CDS is an attempt to make cities more competitive to become part of the global economy and reduce poverty. These two objectives are overarching of greater objectives that include issues such as evolving economies, job-creation, education and housing. A CDS consists of four broad themes, they are; good governance, fiscal balance, livability and competitiveness (Cities Alliance, 2000). The four broad themes can be applied to a specific context.

Within the context of metropolitan Cape Town, the CDS can focus on information technology and tourism as economic stimuli to make the city competitive. Public-private partnerships and increasing the level of service payment can contribute to the balancing of the budget. Reduction of poverty and crime, improved primary health care, access to housing and environmental conservation can contribute to a livable city. Good governance will rely on political and official transparency, responsibility and accountability. Achieving good governance will rely on the extent to which the community and the business sector actively participate in managing the city.

The CDS is focused on implementation. Compiling a CDS that is recognised by the United Nations would then have to prove that it is being implemented. Communities would benefit from a CDS because it would address concerns specifically aimed at the particular community. Within the context of South African cities, a CDS cannot be uniformly applied across the developing and developed components of the city. The level of services in the well-served areas needs to be maintained. The residents in the better-served communities are legally entitled to the service that they are paying for. This is also an income base that the municipality must maintain. The more needy communities would receive the level of services that are being paid for. However, the municipality would strive to improve living conditions by addressing current concerns.

Housing delivery is a crucial and important aspect of service delivery. An action plan for housing the homeless, should investigate the possibility of creating compact residential neighbourhoods in areas of social, recreation, employment and opportunity. The broad international initiative of the Habitat Agenda provides a framework for establishing functional cities, and this is then followed through with local developmental initiative. The local plan of action should thus relate back to the Habitat Agenda.

## 2.3 Sprawl

Sprawl is the undesirable urban growth pattern resulting from low-density single dwelling development. Low-cost agricultural land, which can be easily rezoned for residential development, is usually the attraction for developers. Apart from the private market development, it is also the development of state subsidized housing that usually occurs on inexpensive state-owned land. Due to the relatively high land prices in more desirable locations, low-income housing developments occur further away from urban centres and thus perpetuate the problem of urban sprawl. This phenomenon creates environmental, social and financial problems on different levels of city management. While South Africa does not have megalopolises, as in the case of the United States of America (USA), the expansion of the urban edge is putting pressure on existing infrastructure (Tyler Miller, 1992).

In Cape Town, urban sprawl started to gain momentum during the late 1970's and 1980's, with the creation of areas such as Mitchells Plain, as part of the apartheid state policy of desegregation. Later, valuable agricultural land to the east of Cape Town, was used for low-density development, giving rise to areas such as Blue Downs and Blackheath. According to Daniels (1996), the one house one plot programme by government and private enterprises, has led to the loss of valuable agricultural land of approximately 77 000 ha between 1980 and 1990.

Daniels (1996), notes that not only has urban sprawl consumed agricultural land, but it also damaged environmentally sensitive areas. Utility services have to be extended at high cost to the new developments, and in many cases, costly bulk infrastructure is required. As a result of sprawl, commuting times increases. This leads to the loss of time on all levels of social interaction. As a result, the poor spends a relatively huge amount of their salary on transport costs, as they need to travel to and from places of employment and social and recreational centres (Daniels, 1996). International standards suggest that commuting costs should not consume more than between 2.5% and 5% of a person's salary, but the reality is that in Cape Town, commuters use up to 11% of their salaries on transportation (Daniels, 1996). The option of densification has the potential to combat sprawl and provide the poor with shelter, close to socio-economic opportunities.

## 2.4 Land-Use Planning Co-ordination

The MSDF identified the delineation of an urban edge as a major structuring element in combating urban sprawl. However, the identification and delineation of an urban edge or growth boundary can also lead to deterioration of the quality of urban life, should there be a lack of co-ordination between land-use and transportation planning. With the increase in residential densities, especially within nodes and corridors, the reliance on public transportation increases. Priority should be given to improve public transportation along these mobility routes to discourage the private transport. Failure to achieve the desired public transport infrastructure could lead to the increase in the number of motor cars, greater congestion, increase in pollution, deterioration of health, especially among the young and elderly population.

This lack of co-ordination between land-use and transportation planning can best be illustrated by the example of Zoetmeester, a new town in the Netherlands (Rojas, 2000). For the town to qualify for a railway station it had to have a minimum population of 50 000 people. By the time it qualified, the population had become car dependent, with travel patterns entrenched and road infrastructure already in place.

A counter argument for densification is emerging from the neo-liberal perspective, which reasons that sprawl is inevitable (McMahon, 1997). With increased economic activity, market forces tend to dictate urban growth. Therefore, planning policies will buckle under the pressure of market forces. Land will be bought and developed, where it is needed to act as a stimulus for economic growth. Also, agricultural land is not diminishing because of urban pressures, but because technology is allowing for greater yields on smaller plots. Thus, the argument is that instead of creating policies for densification and an urban edge, create policies to manage sprawl in a more orderly fashion. The orderly management of sprawl would entail the drafting of developing frameworks for large areas, way beyond the current extent of development.

This particular argument highlights the deficiencies of the present compaction ideas; that the focus is on creating policies for the urban environment only, and ignoring the rural areas. The value of agricultural land can be increased four-fold with a rezoning from agriculture to residential land-use. This is a definite incentive for a struggling farmer to sell land. Legislation, that makes such a rezoning financially expensive to

areas of high agricultural potential, should be formulated. Also, adding a high development tax to the land, will discourage urban development. The cost to rezone and the tax to develop high potential agricultural land, should outweigh the profit margin of development. Such a policy would force developers to seek vacant urban land for development, and thus lead to compacting the city.

## 2.5 International Trends in Densification

The numerous measures describing densities often lead to a misunderstanding of this planning concept. The MSDF reference to gross residential density is accepted to be too optimistic (Hoffa, 1999). It is thus important to define the measure of density within the context of this study. Densification can occur through development of new areas, infill of existing areas or consolidation of informal settlements (Arrigone, 1995).

Densification strategies can thus also be used to improve the living conditions in existing informal residential areas. In these areas, where unplanned high-density living is the norm, socio-economic and environmental conditions are appalling. Du Plooy (1993:1165), notes that planning processes in the townships since the 1940's have moulded it into "... inflexible, archaic, low-density, monotonous and boring dormitories" and he argues that densification can revert these negative qualities of the townships by adding more diversity to the composition of the urban form.

Various densification strategies have been employed globally, but not all are applicable in the South African context. In the Czech Republic, the focus for low-income families is on state owned high-rise flats, due to the high financial costs of individual home ownership (Markvart and Stejskal, 1997). The more developed countries, such as France (Union Nationale Des Fédération S D'organismes Hlm, 1997), Denmark (Østergård, 1997), Germany (Wiese, 1997), Sweden (Anon, 1997a) and the United Kingdom (Anon, 1997b) are looking at ways to create more sustainable living environments. The primary focus for these countries is not on the provision of housing, but on how to regenerate existing housing estates or how to incorporate it into the urban fabric.

Densification programmes have worked well in many countries, of which Hong Kong

and Singapore are two examples (Erickson, 1999). These countries, like Manhattan in the USA, have spatial restrictions and are therefore forced to expand upwards. It would be impractical to try and copy their policies. However, it would be worth looking at all relevant international experiences to improve local strategies and circumvent problems encountered.

The need for higher-density urban residential areas is not only limited to the developing world but also include developed countries, such as the United States of America (O'Toole, 1999), Ireland (Fethard Council, date unknown), The United Kingdom (Breheny & Archer, 1996) (Carmona, 1997) (Broers, 1997), Australia (Duncan, 1999) and Portugal (Dentinho & Meneses, 1996) which also consider sustainable ways to increasing urban densities. In the USA, the need was highlighted by a speech delivered by the then Vice President Al Gore in his "Livable Communities Initiative" speech in 1999 (O'Toole, 1999). He highlighted the need for high urban population densities, the demarcation of urban growth boundaries, increasing rail usage and redeveloping neighbourhoods, which are close to corridors into high-density, mixed development.

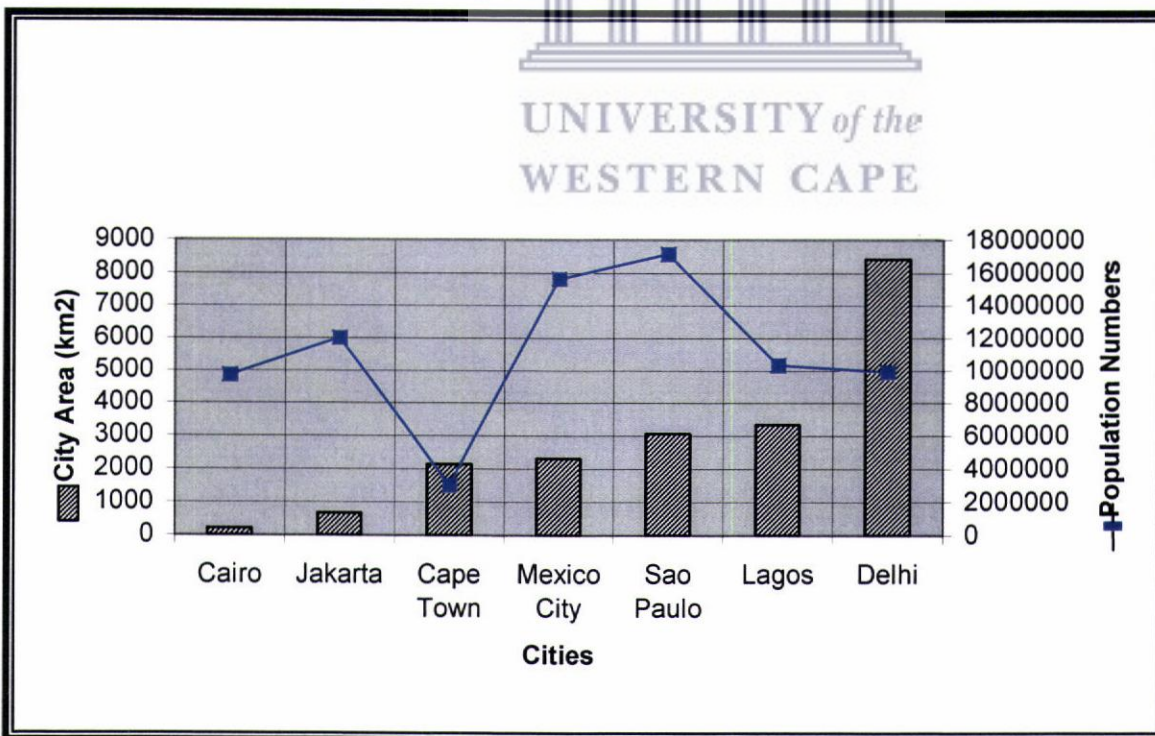
According to O'Toole (1999), the metropolitan city of Portland, adopted an approach to increase its population density by two thirds, and also limiting development outside its growth boundary. To achieve the desired density targets, existing neighbourhoods are being rezoned to allow for high densities. Furthermore, it is building more railway lines than roads to encourage public transport usage. Existing neighbourhoods are also being identified for redevelopment into high-density neighbourhoods that will be connected by corridors of high-density mixed land-use.

In many parts of Europe, the debate to increase urban densities, are motivated by the desire to protect the natural environment through the containment of sprawl, efficient use of energy resources, and waste management. In Helsinki, Finland (Piavanen, 1998), the motivation, unlike in the developing world, is not based on providing homes to exploding urban populations, but on the sustainability of the various land-uses, especially the natural environment. According to Carmona (1997), 4.4 million homes will be needed by 2016 in the UK and it is thus imperative to reuse urban land and protect the countryside, to prevent sprawl. Simultaneously, the debate is continuing on whether increasing densities does not lead to "town cramming" (Jones, 1998). Town

cramming was coined to describe the overcrowded working class areas. The debate is whether high population or residential densities will create overcrowded slum areas.

Cities in the developing world are faced with providing homes to millions of homeless people. Within this context, the concern for the natural environment is not always the guiding principle in deciding on new locations for housing developments. Housing the urban homeless is the main driving force for these cities to promote urban densification. In Graph 2.1, metropolitan Cape Town is compared to some cities in the developing world, which falls into the twenty-five most populous global mega-cities. It becomes evident that on a global scale, metropolitan Cape Town has a very low population to urban area (km<sup>2</sup>) ratio. Expressed as a percentage of the cities combined, Cape Town has 4% of the total population and 11% of the surface area, while Cairo have 12% of the total population and occupies 1% of the total surface area.

South Africa's urban environment is slowly tending to become very similar to that of the bigger cities in the developing world. These large cities are characterised by vast slum areas, due to the lack of providing dwellings at pace with the demand.



Graph 2.1 Mega-Cities in the developing world compared to Metropolitan Cape Town

## 2.6 National Research

Locally, publications and papers have recently been written on creating dwellings for the South African context. Chittenden Nicks Partnership (1990), different density options. The MSDF Handbook (CMC, 1998a) looks at spatial strategies and guidelines to facilitate high-density dwellings, which forms part of a range of other spatial developments. Behrens and Watson (1996), discusses the technical aspects of layout planning to create high-density development. Arrigone (1995), provides a perspective from the Development Bank of Southern Africa, in which low-rise high density housing is seen as a feasible alternative for South Africa's present low-income housing situation. Arrigone, (1995), also draws parallels to Latin America as a source of information due to commonalties with South Africa. These documents have the common thread that densification is important, and provides for a framework for developing higher-density residential areas. However, the recommendations are still general and specific investigations for a particular site are still required.

The Department of Housing, in collaboration with the Urban Research Problems Unit (UPRU) of the University of Cape Town (UCT), released a report in 1996 discussing key issues of housing densification (RSA, 1996a). The report indicates that the government recognises that change in the current housing policy is required if the goals of providing shelter for all are to be achieved. This signifies a shift from the provision of houses to the provision of shelter, one that is urgently needed if the backlog is to be reduced. This paradigm shift would be in line with the thinking of the United Nations Centre for Human Settlement (Habitat), which aims at creating sustainable strategies for shelter instead of housing (Chasek et al, 1995).

The various publications and policies outline the challenge for reorganising urban space, however, the major factor influencing the execution of these policies is access to land and finance. The state does not own enough land to distribute to needy people as it also does not have the financial resources to acquire more.

## 2.7 Access to land

The identification and release of suitable land for housing development have become

resulted in unplanned and uncontrolled urbanisation (Philippine Council for Sustainable Development (PCSD), 1997). In Mozambique, the Land Bill recognises land rights through occupancy. With a population of which 65% of the adults are illiterate, verbal evidence of occupancy is accepted. This would signify a victory for many communities, as a title deed is not essential (Mail and Guardian, 1997). The Land Redistribution Programme in South Africa, has already transferred more than 175 000ha of land to 17 000 families, in 78 projects since 1994 (Eveleth, 1997). Although the processes of restitution and redistribution are gaining momentum, conflict and invasion still do occur due to the slow implementation of the policies.

### **2.7.2 Land invasion**

The slow rate of land identification and release is the root of land invasions. Land invasion and encroachment are very common in the urban areas, however, large-scale land invasion has not yet occurred in South Africa. Any form of land invasion does have a negative impact on planning and the economy. Land invasion can be an individual, or an organised action supported by an organisation taking up the plight of the poor. The reasons are usually the unavailability of land, and housing for the poor.

During the 1980's, the Inkhatha Freedom Party encouraged the occupation of land in Durban, as an attempt to build an urban support base when the United Democratic Front (UDF), was expanding rapidly. After the initiation of political change in 1990, the UDF also encouraged their supporters to occupy land as a means of claiming their 'right' (Heymans & Totemeyer, 1998). Land invasions increased dramatically after 1991, with the abolition of the Influx Control laws. Political change has thus resulted in land invasions.

In Zimbabwe, after independence in 1980, the scale of land invasions escalated. The establishment of the new government was unable to address the influx of people to Harare, which resulted in settlements such as Chitungwiza, with a population of approximately 30 000 by 1979 (Urban Foundation Research, 1994). In Nicaragua, after the Sandinista administration took over the government from President Somoza in 1979, land invasions dramatically increased because the government encouraged it through the recognition of the informal settlements that were established during the previous government's rule. However, their approach started to change during the



1980's, with the realisation that this form of urbanisation is hampering effective planning (Urban Foundation Research, 1994). As discussed, the motivation of land invasion may differ, depending on the local circumstances. It is generally perceived that land invasion is a destructive phenomenon. However, the impact of land invasion can also have positive spin-offs for the occupiers.

### 2.7.3 The impact of land invasion

In the past, the response to land invasion was one of bulldozing, but with the political change, the authorities became more tolerant and sought ways to integrate the informal areas, into formal urban environments. Unfortunately, this approach has encouraged more invasions to take place. The Urban Foundation (1994), through its research, has found identified benefits as well as drawbacks for the invaders and state when invading land.

The biggest benefits for the invaders are the cheap access to usually publicly owned land. This normally occurs close to areas most advantageous to the invaders. Land invasion provides an alternative to existing overcrowded areas (Urban Foundation, 1994).

The disadvantages of land invasion prove to outweigh the advantages. Land invasion reinforces a disparate growth pattern by separating the poor from the formal city. Upgrading of invaded land is difficult, as it soon becomes overcrowded and then poses health and environmental hazards. Land invasion, being political by its very nature, can be exploited by politicians for party political gain (Urban Foundation, 1994).

Land invasion is an indicator of the lack of affordable, well-located housing for the urban poor. Various national and provincial reports on land for low-income housing, have been compiled to identify, release and develop such land. Van Zyl (1990), compiled a detailed report on specific locations which included socio-economic and geotechnical information. However, the report still separates the poor from the urban core. In 1994, the Council for Scientific and Industrial Research (CSIR), undertook a study in which they tried to identify areas where site and services and core housing schemes could be undertaken. The study relegated the poor to distant locations from the core urban area. The City of Cape Town is at present undertaking *The Wetton-*

*Lansdowne-Philippi Corridor* development initiative, which aims to create a corridor of, mixed activities between Cape Town and Philippi-East and would include low-income housing. These studies have proved that there is land available, but that it is the mechanisms to release such land, combined with financial and socio-political constraints, that hamper the delivery.

To avoid land invasion, identified land must be rapidly released for development. To achieve rapid land release, the Land Act (RSA, 1994), the Housing Act (RSA, 1997a), Less Formal Township Establishment Act of 1991, the Development Facilitation Act (RSA, 1995) and the Western Cape Planning and Development Act (PAWC, 1999), make provision for enabling legislation or rapid land release.

## **2.8 Access to Finance**

The current housing subsidy provides the poor with up to R18 400 in securing a home, be it an individual, or collective attempt, with the emphasis of the policy on free-standing dwellings. The response to the current policy is very appropriate, however, many role players realise that within the national policy, structures need to be created to speed up the process (Anon, 1996). Although the current policy is viewed as favourable to the poor, it is also recognised that major rethinking is needed to maximise its use to the benefit of the poor. A means of benefiting the poor, would be to look at alternative forms of shelter, of which densification is just one. The Department of Housing, in a report on densification, acknowledges that if densification projects are to be made accessible to the poor, the housing policy needs to be re-examined (RSA, 1996b).

### **2.8.1 Formal Banking Institutions**

State subsidy beneficiaries find it difficult to participate in any formal financial arrangements with South African banks, to gain access to credit. The economically active people earning less than R1 000 per month, do not qualify for credit by the banking sector because many do not own any fixed assets to be used as collateral. It is argued, that this income-group may not be able to sustain regular monthly payments because their income is too low. Also, the beneficiaries falling within this category, can be highly job-mobile. People move around where they may find work, and thus, do not want to participate in a fixed financial arrangement.

People earning incomes between R1 501 – R3 500 per month generally find the subsidy adequate, because they can afford regular repayments and are in a more stable working arrangement. However, this particular group is also finding it difficult to gain access to credit within the formal banking fraternity. Business Day (2000a), reported on the credit gap for mortgage bonds between R16 000 and R60 000. These are the loan amounts which people in the R1 500 – R3 500 need and qualify for. Again, it is the lack of collateral that prevents many people access to credit. The bond rate may also rise very high, depending on local and international markets, and thus resulting in owners not being able to repay the loans. This problem faces any homeowner, irrespective of the price of the dwelling. However, it is argued that more people in higher income groups can accommodate the fluctuations.

According to the South African Banking Council (2000) past experience has revealed that the traditional mortgage bonds are inappropriate for the low-income market. The Banking Council reported that during the period 1990 – 2000, the banking sector issued 300 000 mortgage bonds to finance township homes. This investment is worth more than R12 billion. Fifty thousand properties have already been reposed by the bank or is not performing. Financial institutions cannot sustain such huge losses. The non-performing properties resulted in the residential areas being redlined.

### **2.8.2 Redlining**

Redlining is a contentious practice that is performed by all banks in South Africa. This practise revolves around highlighting residential areas of high financial risks. These are usually working class areas. This practise is contentious for two reasons. Firstly, the financial risk of an area is based on past performance. The past performances of almost all the working class residential areas were influenced by political instability before 1994. Secondly, it is not assessing the true potential of the individual, separated from the residential area.

The combined factors are making it very difficult for beneficiaries of the state subsidies to participate in the banking sector. The banking institutions are protecting themselves from suffering major loses, and within a capitalist economy it is understandable. However, the banking institutions' position should not be one of total disregard for this

particular market. A mechanism to include the low-income sector into the financial market is needed and the banking institutions must participate to find an amicable solution.

### **2.8.3 Micro-Finance**

Micro-finance has exploded onto the South African market since the middle 1990's. Entrepreneurs identified the gap in the money lending market left by formal institutions that regarded certain income groups as too high risk. The industry was recently (2000) formalised when the Department of Trade and Industry provided operation parameters by means of an Act. With the few years of operation, the micro-lending industry is worth R25 billion (Sunday Times, 2000c).

Before the Micro-finance Regulatory Council was established and the industry regulated, loans with up to 100% interest were issued to needy people. This placed many of the poor in a debt trap, with ramifications on their ability to participate in the state assisted housing programme. The Micro-finance Regulatory Council provides guidelines on micro-lending and hopes to identify the unscrupulous operators from the credible ones (Sunday Times, 2000b).

The formalisation of the industry has resulted in the establishment of finance companies with a specific emphasis on home loans. Surety is provided by the deduction of the installments directly from the payroll. The banking institutions are recognising the profitability of the lower end of the income market, but are still trying to find ways to protect their interest. Public-private partnerships between local, provincial, national government and the private sector can result in strategies to improve the current housing delivery process.

### **2.8.4 Community Banks**

South Africa's banking regulations do not allow for more than one tier of banking, and therefore cannot establish community banks (Business Day, 2000b). The legislation governing banking in the USA is more flexible and allows for more than one tier of banking. BankBoston, in Boston USA, adopted an approach to establish Community Banks. Community Banks opened in areas not deemed profitable. Extensive campaigning and education backed this approach. By targeting the low-income group,

the bank repackaged its portfolios to suit the needs of the community. It delivered a needed service and also recoded profits (Johnson, 1998).

## 2.9 Geographic Information Systems & Urban Planning

The use of a Geographic Information System (GIS), to aid the planning process, is of crucial importance to the creation of suitable living environments. The capturing of data, through the use of a GIS, is essential for reasons ranging from information exchange, to management. Using a GIS provides the opportunity to capture information from various sources for effective planning purposes. The captured information can be verified, updated, stored, queried and retrieved very easily. Healey (1991), Openshaw (1991), Muller (1991) and Maguire and Dangermond (1991), discuss the importance of GIS in various application fields by addressing issues relating to database design, methods of spatial analysis and the functionality of such systems. Dale (1991) and Parrott and Stutz (1991) specifically address issues of importance to urban environments for improved planning and management. The available information clearly illustrates that the successful creation of a housing database for analysis, is the result of collating various data sources, as well the capturing of data and the effective management of such data. One such exercise was undertaken by PADCO, the Planning and Development Collaborative International, Inc., which conducted research on housing in Montego Bay using a GIS for monitoring the performance of a shelter programme (USIAD & PADCO, 1993).

The use of GIS has become vital in an environment where there is a spatial component. GIS forms part of the greater environment of Information Technology (IT), which contributes to the creation of sustainable development projects. The RPD (1994), acknowledges the importance of information technology for the development of South Africa's infrastructure to stimulate the economy. According to Muller (1997:436), "information technology... would revolutionise the way organisations and individuals operate, empowering people, increasing productivity and making a dramatic contribution to the solution of development problems". The global capacity to synthesise and make information available has become evident with the creation of the World Wide Web (www). The challenge that lies ahead is to create conditions conducive for the wider use of such technology.

## 2.10 Conclusion

The delivery of low-income housing is one of the most challenging functions of government. Informal housing will not be eradicated, as this is the only refuge for the poorest of society. However, a housing policy for the Cape Metropolitan Area should acknowledge this and also be proactive in identifying appropriate land for residential densification as a counter measure to low-income unsustainable sprawling suburbs. The identification of appropriate land for low-income higher-density residential development, within a specific area, must be contextually appropriate. To ensure that Philippi-East is an appropriate location for such development, a contextual analysis is important. In the next chapter an analysis of Philippi-East examines current development initiatives and policies, land-use activity, building activity, vacant land, demography, income and density.



## CHAPTER 3



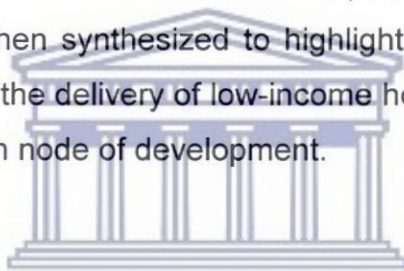
### ANALYSIS OF PHILIPPI EAST

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### 3.1 Introduction

The aim of this chapter is to provide an analysis of Philippi East to assess the viability of developing higher-density low-income housing. It is important to analyse the area in order to gain an understanding of the existing situation and development proposals, to appropriately conceptualise higher-density low-income residential dwellings.

The process of analysis, would firstly be to assess the structure and policy plans for the area. This would provide insight into future development scenarios. Thereafter, a land-use analysis would reveal formal and informal development patterns, current land-uses and vacant land. Building statistics is a powerful indicator of residential and non-residential building activities. A review of building statistics provides an overview of the location and nature of current formal development, within the metropolitan area. Further, an analysis of the population and income is crucial, as these factors determine densification. This information is then synthesized to highlight the need to prove that mechanisms for the intervention in the delivery of low-income housing are needed if the area is to develop as a metropolitan node of development.

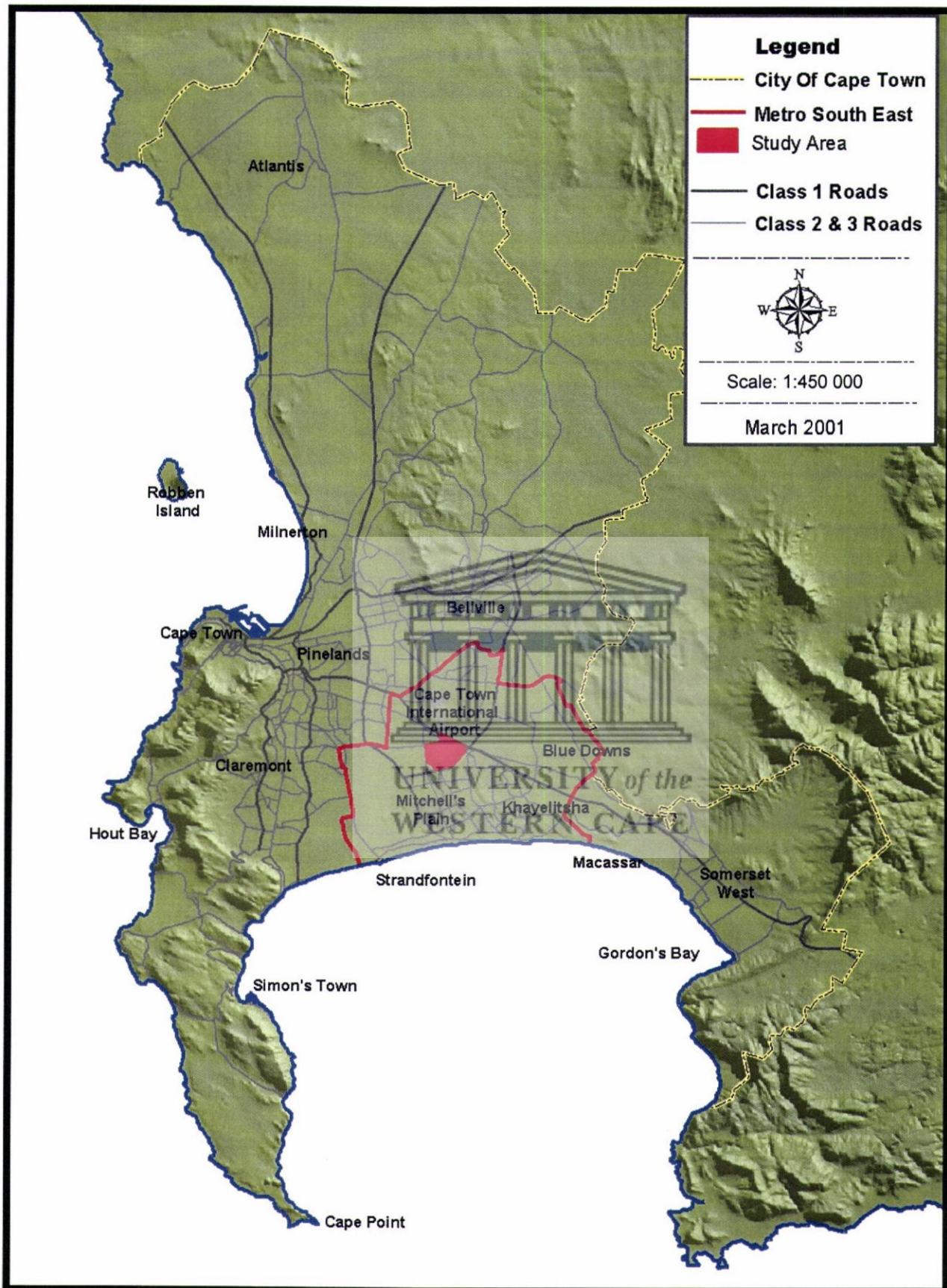


### 3.2 Location of Philippi East

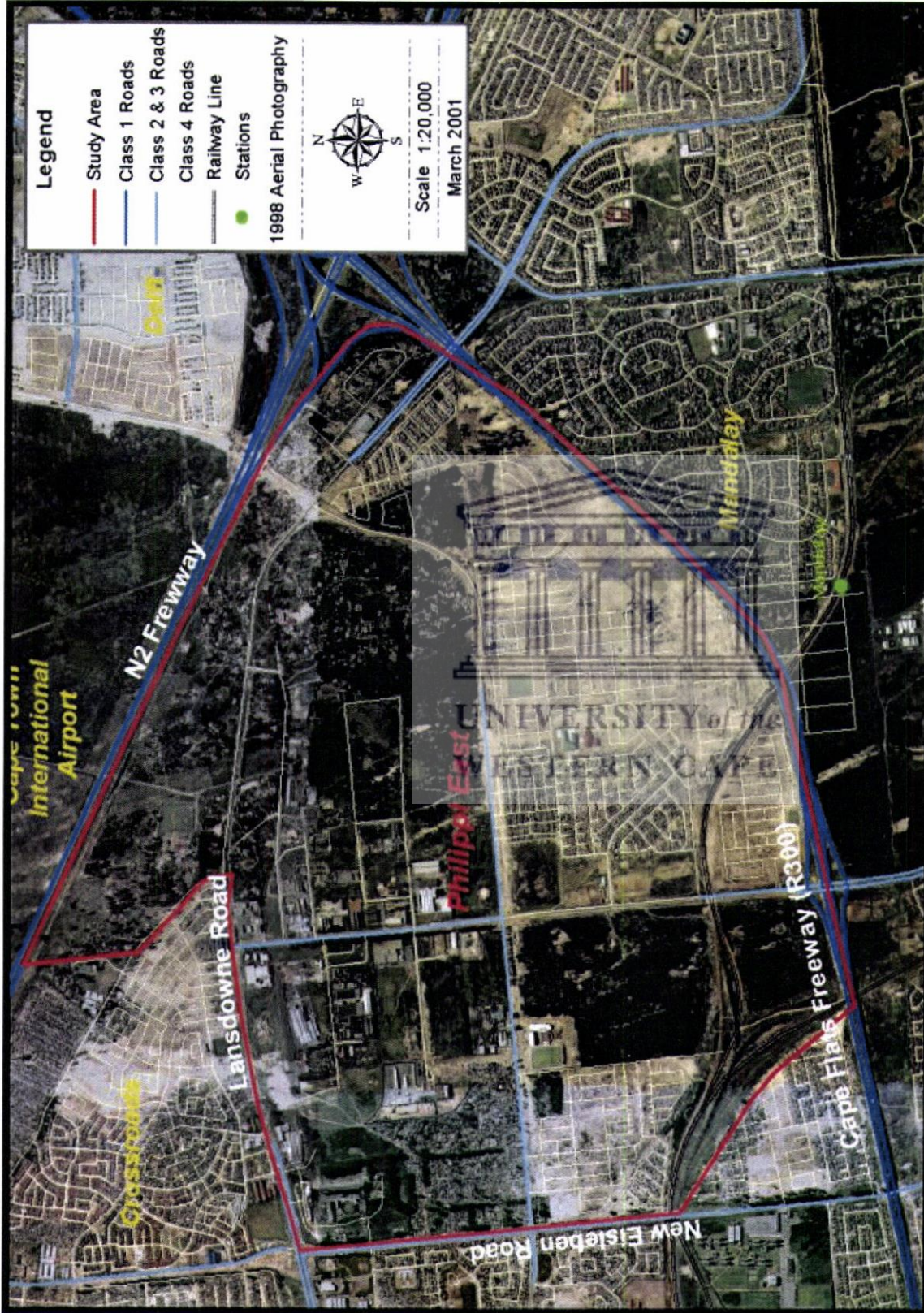
The selected area is called Philippi East and is located southeast of Cape Town, within the sub-region of the Metro South-East (Map 3.1). The area covers approximately 590 hectares of land, boxed in by the N2 freeway to the north-east, the R300 freeway to the south-east, Lansdowne road to the north, and New Eisleben Road to the west (Map 3.2).

Philippi East is the (fourth) eastern node of development, as identified by the MSDF (CMC, 1996) (Map 1.1). The area is also identified as a node of development by the Metro South East Structure Plan (CMC 1997a), the Philippi East Structure Plan (CMC & PAWC, 1995), the Municipal Spatial Development Framework (City of Cape Town, 1999), the Lansdowne-Wetton-Philippi Corridor Initiative (City of Cape Town, 1998) and the Philippi East / Airport Area Node Evaluation Study (CMC, 1999a). The above-mentioned studies identify Philippi East as an area that has the potential for development with an impact on a region larger than itself.





Map 3.1 Philippi East in relation to the metropolitan area  
 Source: CMC (1999)



Map 3.2 1998 Colour aerial image of Philippolis East  
Source: CMC (2000)

### **3.3 Development Policies for Philippi East**

#### **3.3.1 Metropolitan Spatial Development Framework**

The MSDF is a policy document that aims to guide physical development within the CMA. It is based on a vision of “ ... well managed, integrated, metropolitan region, in which development is intensified, integrated and sprawl contained” (CMC, 1996,ix). This vision would be attained through spatial and non-spatial guidelines. The spatial guidelines include; containing sprawl, intensifying urban development within existing areas, redressing imbalances and closing the gap between areas of employment and residence.

To implement the spatial guidelines, four structuring elements have been identified. These are nodes, corridors, the urban edge and the metropolitan open space system (CMC, 1996). The MSDF identifies four nodes of development; three nodes (Cape Town, Bellville and Wynberg/Claremont), are mature while the remaining node, Philippi East, is underdeveloped. Corridors of development join the nodes. The three mature nodes are joined by the Voortrekker Road and Main Road corridors, have a concentration of high-density middle, to high-income residential and mixed use development, while Philippi East has no mature corridor joining it with any other node. Philippi East is in the process of development and thus susceptible to alternative development initiatives that could be of benefit to the population. Given the importance of its location and the determination to develop the area, Philippi East becomes a significant case study.

The MSDF recognises that for the metropolitan region to thrive economically, housing provision for the urban poor must be adequately addressed. Therefore, the MSDF initiates debate regarding the provision of housing for urban poor and states that the peripheral location of the disadvantaged urban population cannot continue. The MSDF acknowledges the following concerns pertaining to the provision of housing;

- 1) A national and provincial housing policy, which is more flexible in the way capital and subsidies are applied and used, is needed;
- 2) The development of public housing rental stock;
- 3) The location of all new housing in, or close to corridors; and

- 4) The release of strategic vacant public land at relatively low cost for affordable housing.

The MSDF proposes high residential densities within corridors of economic development, with a gradual reduction in density moving away from the corridor (Figure 3.1). It stipulates that where possible, the corridor should have a density of 40 – 100 units per ha gross, and the spine, 100 units per ha gross. This would allow many people easy access to all activities, as well as balance the distribution of activities. According to the MSDF, housing should be viewed as a wider component of socio-economic development, in order to provide shelter for the poor (CMC,1996).

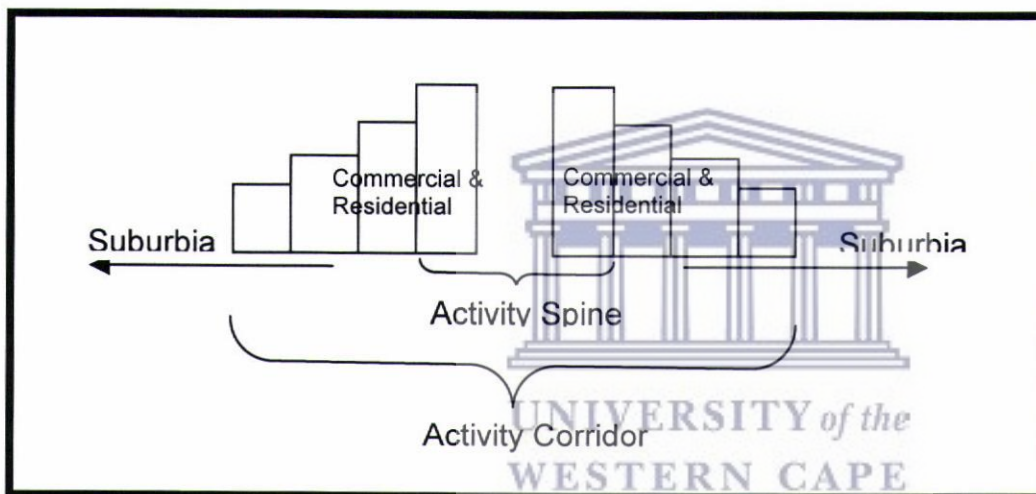


Figure 3.1 An illustration of an activity spine and corridor

### 3.3.2 Metro South East Structure Plan (MSEP)

The MSEP is a sub-regional plan which is one level below the MSDF. The MSEP (of which Philippi East is a part), aims to provide a coherent development framework for the Cape Flats area facing particular challenges and therefore the planning proposals differ from structure plan proposals made for other parts of the city (CMC, 1997a).

The main points of this document are (CMC, 1997a);

1. Integrating the different planning initiatives for the area,
2. Integration with other structure plans,
3. Ensure that the benefits of the plan are equitably distributed,
4. Protection of the natural environment, and
5. Improved management practices of the area.

Overall, the document proposes higher-density developments within activity spines and corridors. The policy does not specify urban density, but does recommend 3 – 4 storey walk-ups.

### **3.3.3 The Structure Plan Proposals for Philippi East**

This policy document was commissioned both by the then CMC and the Provincial Administration of the Western Cape. This document, although dated earlier than the MSEF, focuses specifically on Philippi East. The aim of this document is to provide guidelines on developing a vast range of land-uses within the area, to benefit the immediate and surrounding communities (CMC & PAWC, 1995). The policy recommendation states that residential densities should be a minimum of 30 density units per hectare (du/ha).

### **3.3.4 The Lansdowne-Wetton-Philippi Corridor Initiative**

The MSDF identified a corridor that connects the Philippi East node with the Claremont / Wynberg node as an emerging corridor. To stimulate the development of this corridor, the above-mentioned study was initiated. This study provides policy guidelines for development (City of Cape Town, 1998). Unlike other policy documents, this initiative is constantly being reviewed and actively implemented. Various documents for this area have been drafted, these include a spatial development framework, and transport and marketing plans. This study also recognises that Philippi East is a node that should be intensively developed. The initiative also recommends that residential densities be increased, although no definite recommendation on residential density is made.

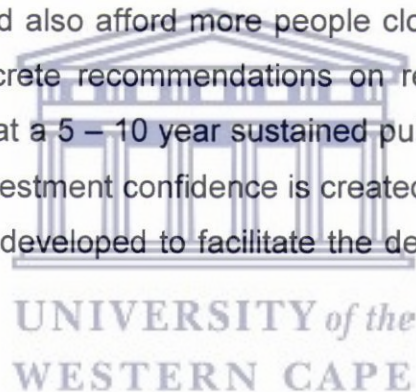
### **3.3.5 The Municipal Spatial Development Framework**

This is a spatial development framework for the City of Cape Town Administration of which Philippi East is a suburb. This document does not place an emphasis on Philippi East, but rather on adjacent Hanover Park and Mannenberg (City of Cape Town, 1999). It identifies these two areas as foci for interchanges and thus hubs of activity. The document does identify activity streets, running through Philippi East, and so support the need for higher-density residential development for the area. However, no explicit densification recommendations are made.

### **3.3.6 The Philippi East / Airport Node Evaluation**

The study was commissioned to investigate the impact of the development at Cape Town International Airport on Philippi East and *visa versa* (CMC, 1999a). The results of the study indicated that development initiatives for the two areas would be mutually reinforcing. As a result of expansion of the airport, jobs would be created in Philippi East. This would be mainly in the retail and service sectors. No explicit recommendation is made on urban densities, however, the document supports the need for increased residential density to enhance the location of services and thus bring people closer to employment opportunities.

All the above-mentioned planning frameworks and initiatives for Philippi East identify and acknowledge that the area has the potential for development. The planning proposals identify that the area should have higher-residential densities to sustain other land-use developments. This would also afford more people closer access to jobs and services. However, very few concrete recommendations on residential densities are made. It is unanimously agreed that a 5 – 10 year sustained public investment strategy is necessary before any private investment confidence is created (CMC, 1999a). During this time, infrastructure should be developed to facilitate the development potential for the private investors.



## **3.4 Land-Use analysis**

A land-use analysis of the study area is imperative to understand the context in which higher-density housing should be developed. An analysis of the urban growth pattern, land-use, informal settlement growth, building activities and vacant land, combined with demographic data and density analysis provide a context in which the nature of future residential development should take place.

### **3.4.1 Land-use and urban growth**

Using digital aerial photography, the rate of urban growth for the period 1988 to 1998 was monitored (CMC, 2000a). The results for the 10 year period reflect a steady increase in urban growth, which encompasses both the formal and informal urban fabrics. At 1988, 10% of the total area was developed. By 1993 urban growth has

increased by 6%. During the period 1993 – 1996 a phenomenal 27% growth occurred, and by 1998 the growth declined to 6%.

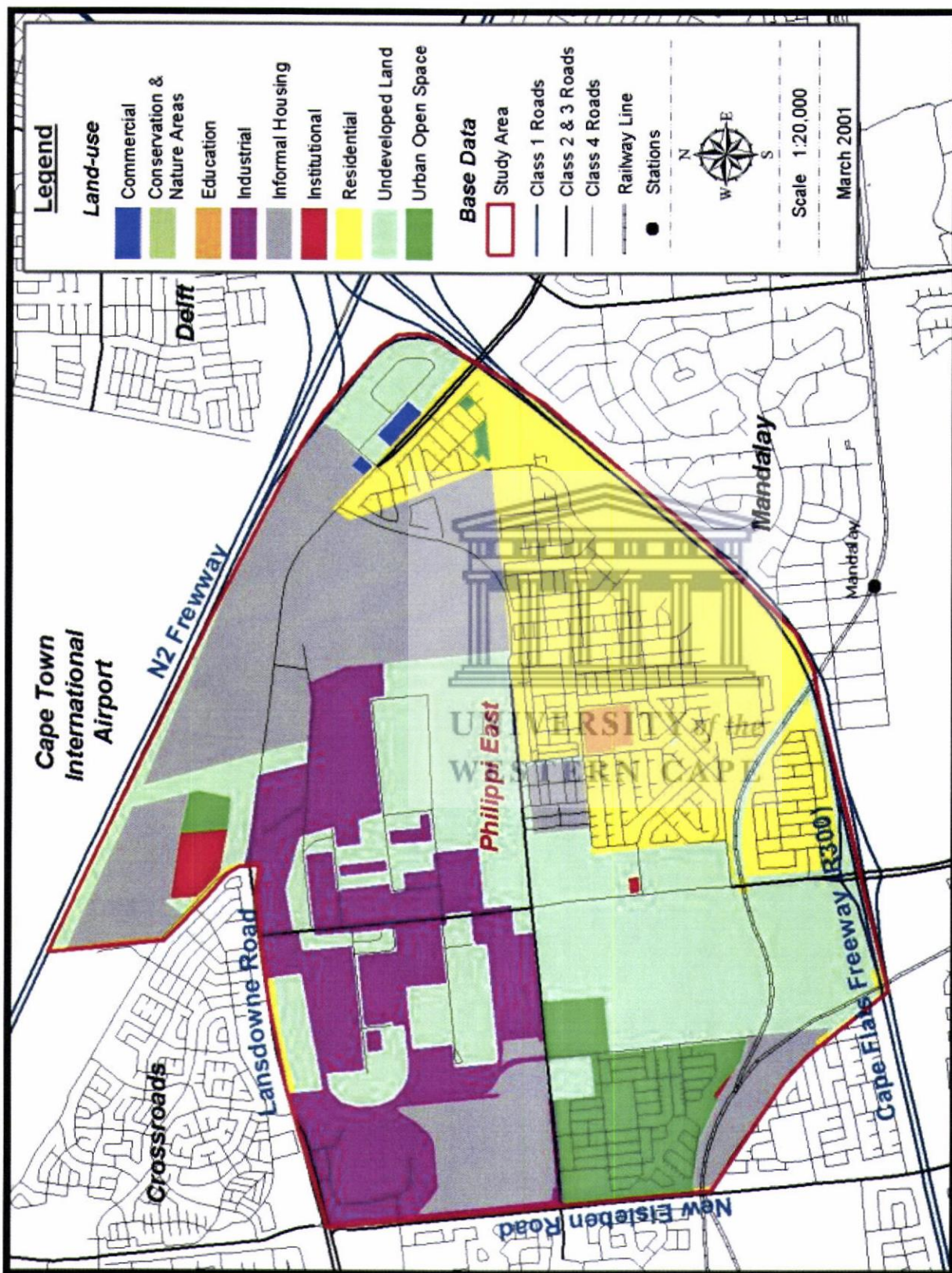
The land-use for the Philippi East is mainly residential (46%), followed by industrial use (18%). Commercial land-use occupies 0.25% of land, while institutional use occupies 1% of land (Map 3.3). This analysis clearly indicates a strong residential focus with industrial job opportunities in the immediate area. A field visit corroborated the urban growth data, to reveal that although 18% of land-use is identified as industrial, the land is under-utilised.

An informal settlement study was conducted by the Housing Department of the Cape Metropolitan Council (CMC, 1999b). The exercise resulted in the spatial capturing of each individual shack onto GIS.

The data was captured from aerial photography for January 1993, May 1996 and May 1998. For the first time, accurate information of the number of informal dwellings for the entire metropolitan area exists.

The study showed that the number of informal dwellings at January 1993, was 28 380. By May 1996, it had increased by 111% and by May 1998, a further increase of 20% informal dwellings were erected (CMC, 1999b). Table 3.1 represents the results per Administration.

The total number of informal dwellings for the study area is 8833. This represents 5.4% of the entire metropolitan area. From the period 1993 to 1996 informal dwellings within Philippi East have increased by 328%. From 1996 to 1998 its growth declined to 84% (CMC, 1999b). This informal sector represents 59% of existing urban structures while the remaining 41% are formal structures. The major land-use for the study area is mainly informal residential. It is thus evident that the growth is predominantly in the informal housing sector. The growth of this unregulated land-use is symptomatic of the shortage of houses for the poor.



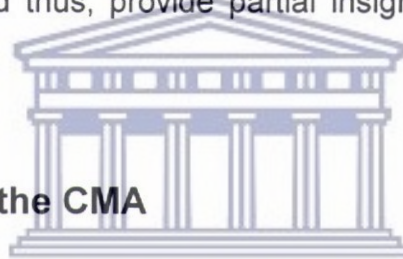
Map 3.3 Land-use in Philippi East  
Source: CMC (2000)



<b>Administration</b>	<b>January 1993</b>	<b>May 1996</b>	<b>May 1998</b>
Blaauwberg	986	2068	2245
City of Cape Town	13676	28015	31652
Helderberg	155	2215	3526
Oostenberg	2121	5678	7546
South Peninsula	672	3247	3205
City of Tygerberg	10770	18696	24141
<b>Total for the CMA</b>	<b>28 380</b>	<b>59 919</b>	<b>72 315</b>

Table 3.1 Growth of Informal Settlements in the CMA  
(Source: CMC, 1999b)

The following section on building activities shows an indication on the nature of formal buildings erected in the CMA, and thus, provide partial insight into how the housing crises are addressed.



### **3.5 Building Statistics for the CMA**

#### **3.5.1 Background**

Building statistics are economic indicators of the well-being of a region, or a country as a whole and this is a clear indication of where development is taking place. Investigation into the building activities of the CMA would be advantageous in understanding the extent and the nature of development, which is linked to the greater socio-economic conditions of any given area.

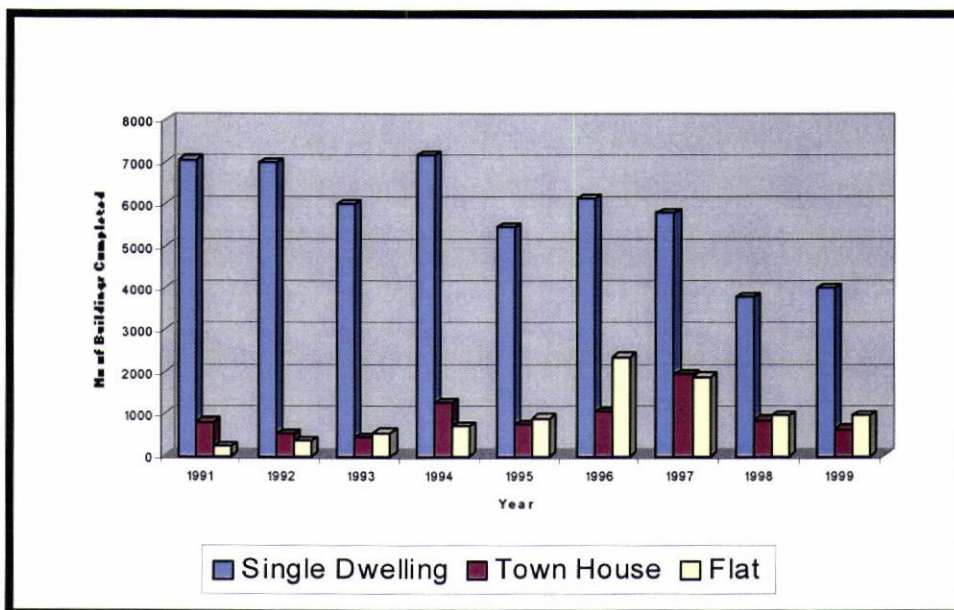
The CMC Administration collects the building statistics information. Due to the transformation in local government during the last seven years, the data has been collected using different methodologies. For the period 1991 – 1994 the data have been collected along common boundaries, thereafter, the methodology changed from year to year making it difficult to do time series analysis from 1995 –1999 on a more detailed level. The result is that the data for the entire period can only be analysed at a metropolitan level.

### 3.5.2 Residential Building Statistics

The data that have been collected for residential activities are divided into dwelling unit, town houses and flat units (CMC, 1997b; 2001a). The dwelling units are freestanding housing units. The town houses are the semi-detached units, usually for the middle-income group, and the flat units are the high-density residential buildings. The building statistics are further divided into building plans approved, building that commenced and building activities completed. Only the statistics of the respective years, that indicate the building activities that were completed, will be used as a source for analysis of the distribution of formal buildings across the CMA (Graph 3.1).

Single dwelling units comprise the bulk of the residential building units erected in the CMA (CMC, 1997b & CMC, 2001a). The combined statistics for the period 1991 – 1996, for the single dwelling units are 41 4113, while the flat units come in second with 7891, and thirdly the town houses with 6508. The reason for the large number of single dwelling units is the government's low-income housing plan, which focuses on providing a single house per erf, as well as private residential development, which also perpetuates urban sprawl.

The single dwelling units constructed for the period 1991 – 1994, significantly indicate the highest construction activities located in the Blue Downs area, where urban sprawl

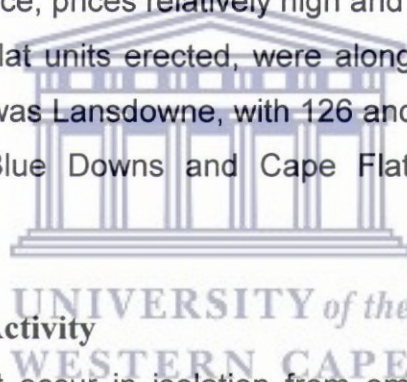


**Graph 3.1 Residential building activities in the CMA**  
(CMC, 1997b, 2001a)

is currently occurring (CMC, 1997b). The combined number of single dwelling units for this period in the Blue Downs area is 7151, while the Cape Flats area follows second with 2093 dwelling units (CMC, 1997b). This type of residential units has strong emphasis on the northern suburbs due to the availability of inexpensive land.

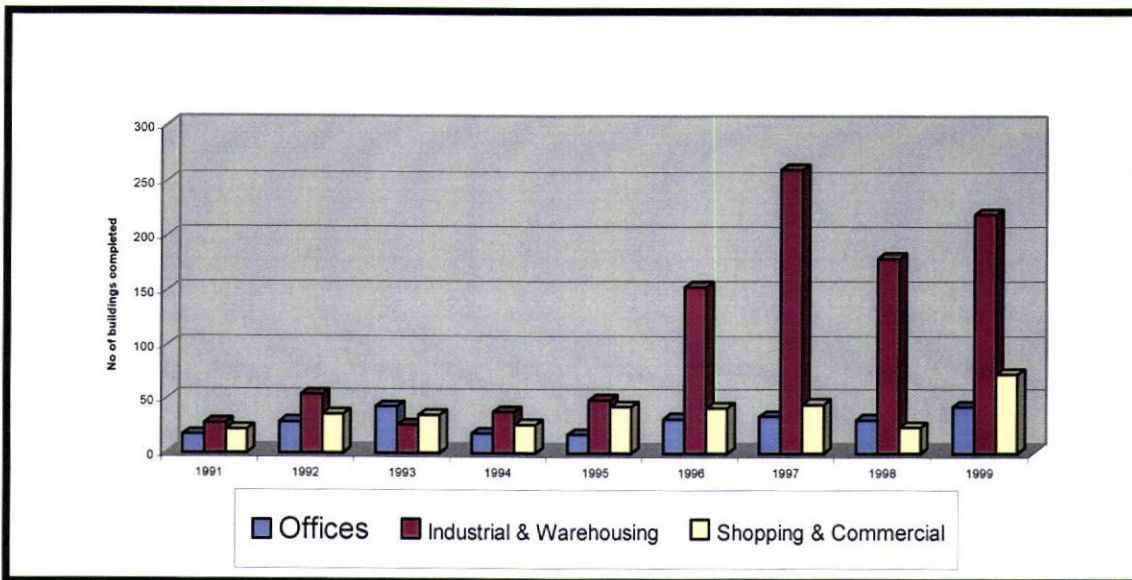
The second category is town housing, which is gaining wide popularity because it promotes security. The Cape Flats Area had 131 town housing units completed for the period (1991 – 1994), while the Blue Downs area had none (CMC, 1997b). The bulk of such developments took place in East of Berg River with 197 units, (Paarl region) Parow North, 137 units, Bellville North, 129 units, the West Coast, 124 units and the South Peninsula with 119 units erected (CMC, 1997b).

The third category of housing, namely, flat units, were mainly erected within, or close to activity corridors where land is scarce, prices relatively high and the demand for housing in exists. The highest number of flat units erected, were along the Atlantic Seaboard, with 241 units completed, second was Lansdowne, with 126 and third Parow North, with 116 units (CMC, 1997b). The Blue Downs and Cape Flats Areas had no such development.



### 3.5.3 Non-Residential Building Activity

Residential development does not occur in isolation from employment opportunities, and therefore it is imperative that residential building activities are examined in relation to non-residential activities. The non-residential development for the period 1991-1999, comprised of offices, industrial and warehousing, and shopping and commercial buildings (CMC, 1997b; 2001a). For the period 1991 – 1999, a total of 264 office buildings were constructed. During this period, 346 shopping and commercial buildings and a staggering 1010 industrial and warehousing buildings were completed (Graph 3.2). The location of the different types of non-residential buildings has a particular pattern within the CMA. The development of any particular industry is also in response to the type of labour found in that particular area. An example is the proliferation of industrial areas in the Metro South-East, due to the surplus of labour supporting it.



**Graph 3.2 Non-residential buildings activities in the CMA**

Source: CMC(1997b, 2001a)

The period 1991 – 1994 can be analysed because, as mentioned earlier, the data have been captured according to the same geographical boundaries. The results of this analysis can be generalised for the other years as well. For the 1991 - 1994 period office development in Parow South proliferated with a total of 40 units, followed by the Bellville area with 20 units. Blue Downs and Cape Flats areas had two units each constructed for the same period (CMC, 1997b).

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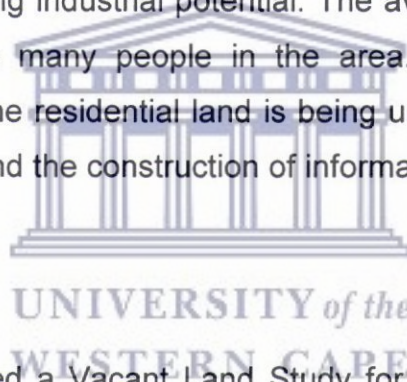
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The building statistics (CMC, 1997b) indicated that for the period 1991-1994, there was some industrial and warehousing development in most of the areas surveyed. Most of the development took place in Parow South, with 29 new such developments, followed by Parow North with 16 new units and then the Cape Flats and Blue Downs areas with 15 new units erected respectively. Parow North and South combined, had 45 new units developed for the four-year period, and draws its employment from the Cape Flats and Blue Downs areas, due to its close proximity. The high concentration of industrial and warehousing developments can be ascribed to the well developed activity corridor of Voortrekker Road, with its mixed concentration of activities feeding a large portion of the metropolitan area.

The third category of non-residential building activities is shopping and commercial buildings erected (CMC, 1997b). Most of these developments took place in the Blue Downs area, with 27 shopping and commercial buildings completed. The private sector is responding to the demand for such services, where a vast number of residential units

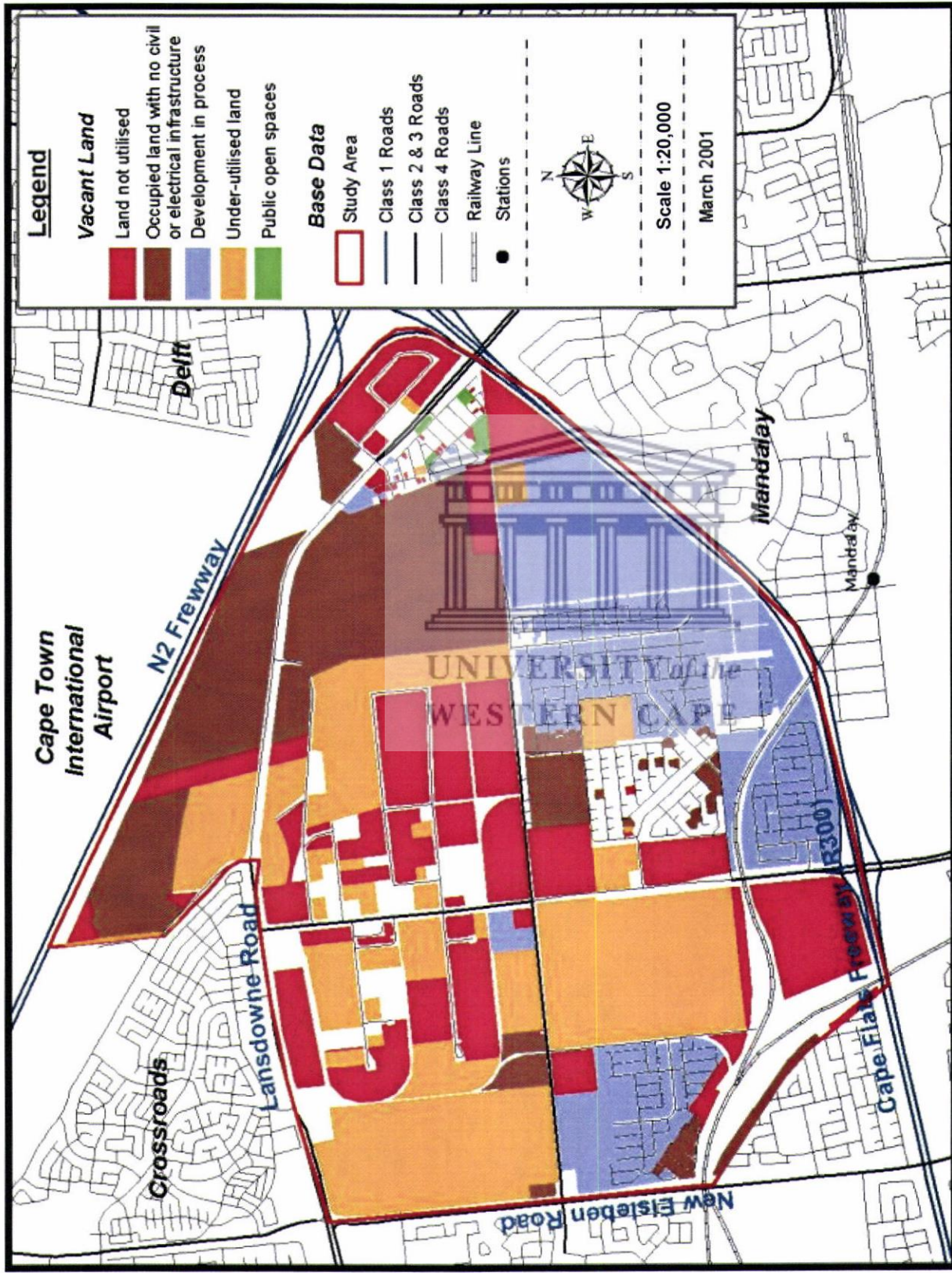
were constructed. Second, was Athlone with 14 buildings erected, followed by Lansdowne and Newlands with 12 buildings each. Shopping and commercial buildings completed on the Cape Flats amounted to only seven developments for the same period (CMC, 1997b).

It can be concluded from the building statistics (CMC, 1997b, 2001a), that most of the high density development is taking place in the more affluent areas of the CMA due to the need to optimise the available space. On the other hand, the single dwelling residential units are proliferating at the urban fringe, and in the Metro South East (with development such as Delft and Browns Farm) falling under the integrated Service Land Project (iSLP), which is providing low income people with a place of refuge. It is evident that the industrial and warehousing activities are the major employment opportunities for the poor in the MSE and surrounding areas. At present, Philippi East (which forms part of the Cape Flats area) has growing industrial potential. The availability of inexpensive land makes it possible to locate many people in the area. However, the current information clearly indicates that the residential land is being under-utilised, due to the one-house-per-plot programmes and the construction of informal housing.



### **3.6 Vacant Land**

The CMC Administration conducted a Vacant Land Study for the entire metropolitan area (CMC, 2000b). Analysis of the data for Philippi East reveals that 78% of the vacant land has the potential to be developed. 22% of the land is already developed. Of the 78% potentially developable vacant land, 23% is occupied by informal housing with no civil or electrical infrastructure, a further 30% of land is under-utilised, i.e. formal buildings on very large portions of land, and the remaining 25% of land is vacant (Figure 3.4).



Map 3.4 Vacant land in Philippi East  
Source: CMC (2000b)

### 3.7 Ownership & Zoning

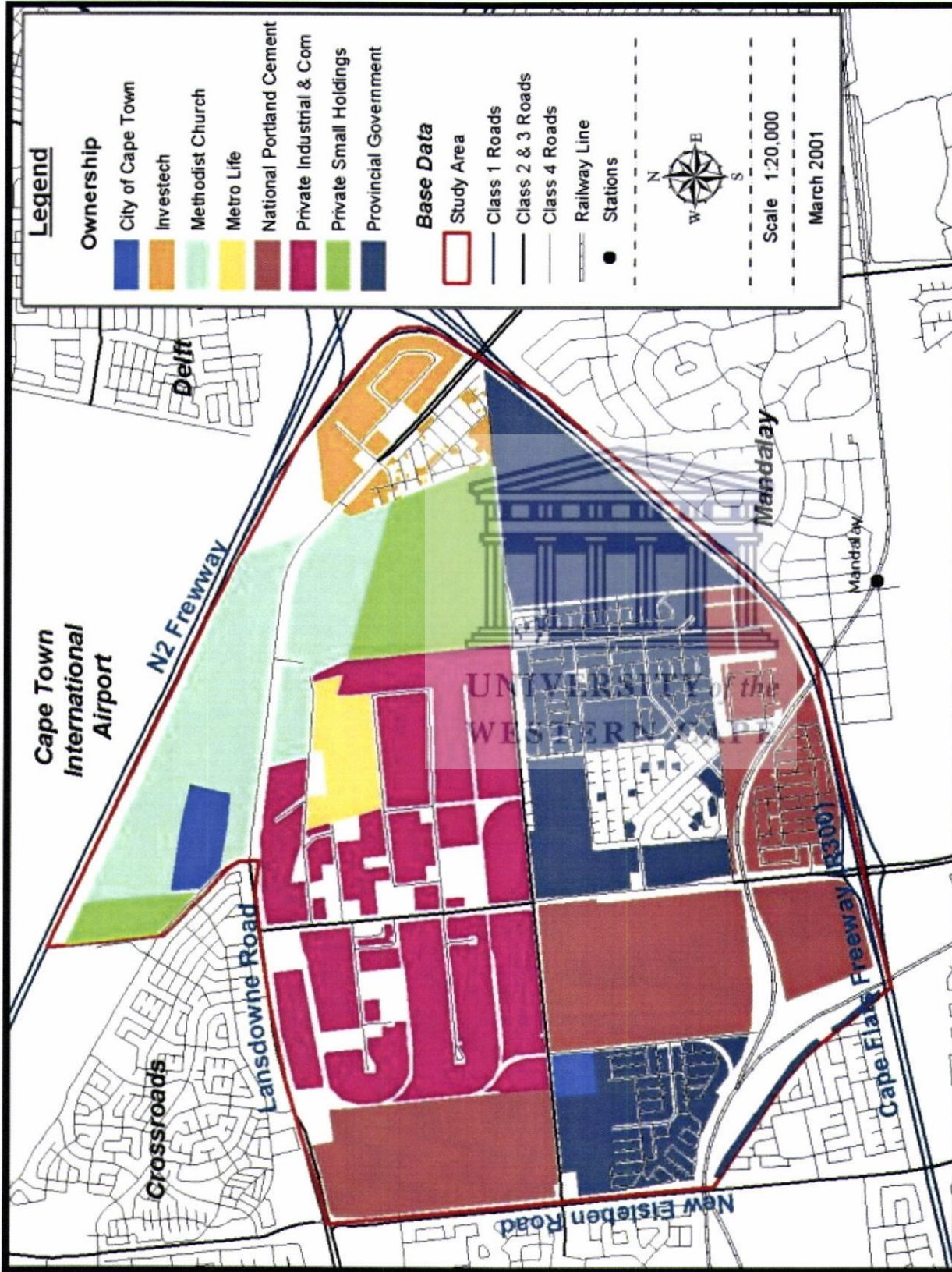
The identification of land ownership is crucial information to assist with rapid release of land for development because publicly owned land can be developed more easily than privately owned land (Map 3.5). The City of Cape Town and PAWC own 27% of land within the study area. The other major landowners are National Portland Cement, and undisclosed private ownership with 61% ownership each. The Methodist Church owns 12% of land within Philippi East (Graph 3.3) .

The zoning for the study area is mainly industrial (55%), followed by land that has not been zoned (25%). 12% of land is zoned for informal housing while only 4% of land for formal residential housing (Map 3.5). 63% of the identified vacant land that has the potential to be developed, is zoned for industrial purposes, 15% is of land zoned for rural land use, 13% for informal land-use and only 1% for residential land-use. Of the potential vacant land, 73% is privately owned, while the remaining 27% of land is owned by the PAWC or the City of Cape Town (Map 3.5).

### 3.8 Demography and Income

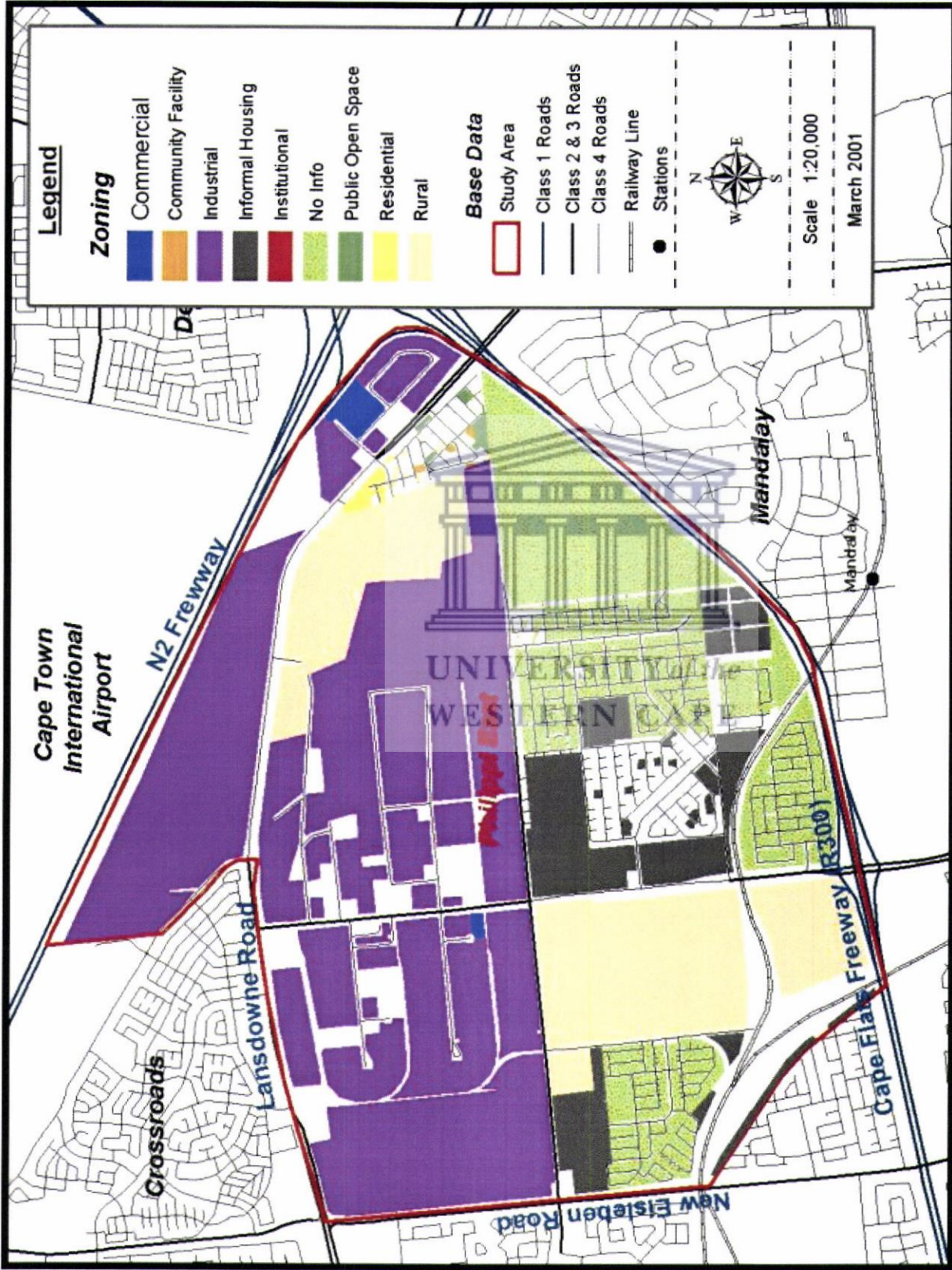
According to the 1996 census data there were 17 703 people living in Philippi East, and the average income was less than R1 000 per month (CMC, 1997c). The then City of Cape Town (CCT) conducted an intensive study into the existing situation of all the areas included in the Lansdowne-Wetton-Philippi Corridor (CCT, 1998) initiative. The findings were analysed and used to derive projected estimates imperative in the planning process. This information, combined with the census data, is the most comprehensive data available for the Philippi-East area.

Although the census data are available, the findings of the Lansdowne-Wetton-Philippi Corridor Study are used as this information was collected for a smaller area, and thus more focussed and has a smaller margin of error. According to this study (CCT, 1998) there are 16 600 people living in Philippi East and comprises of 1524 households with an average income of R1 324, 03 per month. 43.1% of the population is economically active and only 30.2% is employed. The Lansdowne-Wetton-Philippi Corridor Study projects that the population would increase to 78 480 and households to 15 583 by

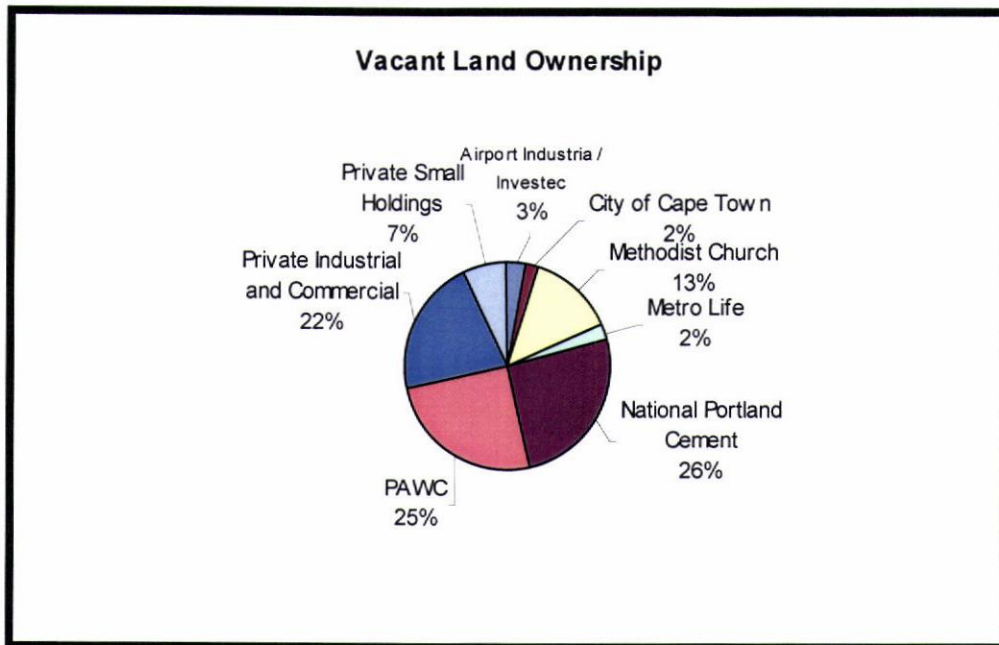


Map 3.5 Ownership of Vacant land in Philippi East  
Source: CMC (2000b)



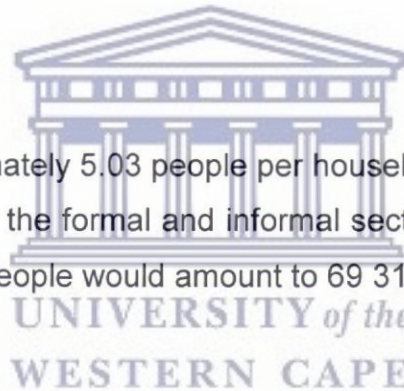


Map 3.6 Zoning of Vacant land in Phillippi East  
Source: CMC (2000b)



**Graph 3.3** A breakdown of vacant land ownership in Philippi East

Source: CMC (1997b, 2000b)



2002. This translates into approximately 5.03 people per household. It is estimated that the number of people employed in the formal and informal sectors would amount to 29 601, and the economically active people would amount to 69 311 in 2002.

### 3.9 Density analysis and comparison

The residential area mostly consists of low-density, corrugated iron structures to the east and north of Lansdowne Road. The existing formal housing component in Philippi-East is very small with 226 formal dwellings and 8036 informal dwellings (CMC, 1998b & CCT, 1998). The overall residential density for Philippi East is 5.7 du/ha. Overall, this figure is exceptionally low for a future metropolitan node of mixed land-uses. The formal dwellings occupy an area of 21 hectares and have a residential density of 10.7 du/ha. The informal settlements called Vietnam 1,2,3 and 4 occupy an area of 26.3 hectares and contain 3480 informal dwellings. The informal residential density for this area is 132.3 du/ha. This extremely high informal residential density poses health, social and environmental risks.

### 3.10 Conclusion

The various development frameworks and planning policies for Philippi East are indicative of its importance as a developing metropolitan node. The MSDF, being an overarching plan, provides general principals to ensure coordinated metropolitan development. The intention for these principals is for it to be incorporated into lower levels of planning. Densification, being a main principal of the MSDF, thus must be included into area specific planning. The examination of the various area specific planning initiatives, pertaining to Philippi East, acknowledges the importance of densification. However, The Structure Plan Proposals for Philippi East is the only development framework that makes a recommendation to develop residential units at a density of 30 units per ha (CCT, 1998).

The spatial analysis of Philippi East reveals that the dominant land-use is informal housing, followed by industrial use. It can be concluded that informal housing will remain a dominant land-use as it has increased by 150% over the period 1993 - 1998. The analysis of the building statistics reveals that the main residential type being built in the area is single residential housing, and that the majority of non-residential developments are industrial and warehousing developments.

An analysis of available land indicates that 78% of the study area has the potential to be developed. Private land-ownership can prove to be an obstacle to higher-density residential development as 73% of the developable land is privately owned. To keep costs down and affordable to the beneficiaries, the development of low-income housing occurs on public land. However, with 73% of the land privately owned, and an average income of just over a R 1000 per month, measures will have to be sought to acquire this land for low-income higher-density residential development.

Providing the projected population of Philippi East with subsidy dwellings, within the current delivery framework, would require approximately 234 hectares of land, and this excludes land required for roads and other urban services. As stated, the development in Philippi East is mainly industrial and congested informal housing. The density of the formal residential areas are far below the recommendation made by the MSDF.

It is concluded from the research that three areas of intervention are required to ensure that the objectives of the MSDF are achieved. These are access to land, the

identification of appropriate residential densities, and access to finance. Chapter 4 examines measures for securing land for higher-density low-income residential development through legislation and proactive land acquisition measures.





**CHAPTER 4**

**ACCESS TO STRATEGIC VACANT LAND**

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## 4.1 Introduction

The identification and release of available strategic land for low-income housing, is a crucial step in implementing a sustainable housing policy geared towards densification. South African urban areas do not have a shortage of land for housing, but rather limited strategic land for high-density low-income housing.

In the CMA, vast tracks of land are either un- or underdeveloped and owned by private and public enterprise. Land parcel situated closely to areas of employment, recreation, retail and health sectors can be defined as strategic land. In short, strategic land can enhance the quality of life for the poor citizens, because it offers easy access to facilities available in close proximity. At present, the poor are situated far away from these facilities and have to travel relatively long distances, at a high financial cost, to utilise these facilities.

The task is to create mechanisms of releasing such land to the poor, without destabilising the land market. The transformation of South Africa is incomplete without addressing the allocation and ownership of land. To achieve this, a greater cooperation between public and private enterprise and a commitment from the state to include the poor in decision-making, need to exist.



The focus of this chapter is two-fold. The first part is to define strategic vacant land, suitable for low-income high-density housing as identified by the MSDF. The second part of the chapter focuses on the release of such land for residential housing for the poor.

## 4.2 Strategic Vacant Land: Criteria for Assessment

The MSDF provides a framework for assessing potential strategic vacant land. This framework is however very broad in scope and only specific to large-scale developments, thus strengthening the notion of a corridor or node. The strategic site assessment cannot be used for the viability of locating smaller land-uses, for example a medical clinic. The MSDF proposes to use vacant, or under-utilised land within the corridors as an opportunity to distribute activities and resources across the metropolitan

region. An identification of strategic vacant and under-utilised land, should be based on the following criteria, (CMC, 1996);

1. public ownership,
2. the scale of opportunity the site presents, i.e. if it is vacant, under-utilised and/or large,
3. the site's generative capacity, i.e. the extent to which the development of the site is likely to generate other positive action in the structuring of the Cape Metropolitan Region (CMR),
4. the degree of accessibility to urban resources,
5. the degree to which the site can contribute significantly, either to metropolitan restructuring or to consolidation,
6. the degree to which the site can contribute to meeting the basic needs of the region's inhabitants,
7. the infrastructure capacity,
8. the potential value of land.



### **4.3 Assessment of Philippi East as a Strategic Site**

The MSDF identifies Philippi East as a potential node of development that would strengthen the idea of lattice of development across the metropolitan area. The study area has the potential to develop a node due to five proposed corridors of development (Klipfontein road, Wetton/Lansdowne road, AZ Berman, Bonga Drive and the North-South Link), converging at Philippi East (map 1.1). However, the geographical extent of the node and corridors has not been identified. Although it is stated that a corridor should be a 1 km zone, it is agreed that it will not be applied uniformly. Thus, certain parts of the corridor would be less than a kilometer in width, and in some cases, it might be wider. Also, where significant open spaces (nature areas, metropolitan open space, etc) intersect a corridor or spine, the open space would be preserved, and thus no or limited development will be permitted.

The extent of a node is therefore just as fuzzy as the corridor, and does not have a uniform radius of any size. The location of the node also depends on the agglomeration of land-use activities, which would stimulate further development. In the case of Philippi East, an informal consensus places the centre of the node at the crossing of Stock and Sheffield roads. The development of the node could shift the fuzzy centre in due course.

For the purpose of this study, Philippi East, as identified by the Philippi East Structure Plan (CMC & PAWC, 1995) serves as the potential area of development.

Assessing the potential of Philippi East in terms of the strategic criteria as identified by the MSDF, is essential in promoting higher-density residential development. Therefore, the most important criterion is the total vacant and underdeveloped land in Philippi East. As stated in Chapter 3, 78% of the study area is developable, however, only 27% of the total study area is in public ownership. The site also meets the criteria of generative capacity for development, assisting in metropolitan restructuring and the potential of meeting the basic needs of the region's inhabitants as well as developing transport infrastructure to provide access to urban resources. The advantage of the site being un- and underdeveloped is that the provision of new infrastructure can be established to accommodate higher-density residential development.

The vacant land within Philippi East complies with the MSDF criteria of strategic vacant land, and if appropriately developed it could benefit the entire metropolitan area. The major problem for low-income higher-density residential development is that 73% of developable land is privately owned. The lack of adequate publicly owned land could retard an effective housing delivery strategy. The release of urban land is thus a critical component of housing delivery. To release urban land for housing requires that various government departments adopt an integrated approach.

#### **4.4 The Release of Urban Land**

The identification of well-located suitable land is the crucial step towards providing adequate shelter for the poor. Against the current economic backdrop of South Africa, land provision should be affordable to the state and the citizens as well. Due to the increasing population, the demand for access to urban land is becoming greater.

At present, the poor are acquiring land for shelter, however the various mechanisms by which they acquire land do not secure tenure, thus making them very vulnerable to financial exploitation. This further discourages effective and sustainable use of the land. Squatting, house/room/shack rentals, land rental, land sub-division projects, public housing and land and subdivision projects by developers, are the formal and informal means by which the poor acquire land (Wolfson, 1991). The need for land and the



failure of the present and previous governments to deliver it at a reasonable rate resulted in squatting becoming a common phenomenon. This has led to vast areas (peripheral and strategic) being used for informal housing. The unavailability of land for housing, has led to the rental of rooms, houses or shacks. This in turn exacerbated many social and health problems through overcrowding of dwellings. Land rental is also a form of acquiring access to urban land. This allows the tenant some security in the urban environment.

Land-subdivision is a means of land acquisition by the poor. This approach has made land available for settlement, but does not necessarily imply that the land would be developed with services and therefore still causes health and social problems. Wolfson (1991), propose that the provision of public housing for the poor can help address the problem. But the rate of provision is relatively slow and the location far removed from the urban economic core. Public housing also suffers from gross over-crowding and a lack of services. The shelter and land sub-division projects by developers are not geared towards the lower income groups, but rather the middle-income groups (Wolfson, 1991). South Africa's current economic structure does not allow the low-income groups to participate in housing projects by private developers. This is due to the fact that it is difficult for the low-income sector to obtain credit from the financial institutions.

The National Housing and Land Affairs Departments have recognised that the government intervention is crucial in assisting the poor to access land, and thus have sought ways to co-ordinate and compliment each other, in drafting relevant legislation.

#### **4.4.1 Legislative Context**

(a) The white papers on housing and land

The DoH recognises that the most crucial aspect retarding housing delivery is the availability of suitable land. While it acknowledges that land issues fall outside the ambit of any housing authority, it still makes proposals on how to address the release and management of suitable land for housing. In the White Paper on Housing (RSA, 1997b:51), *land delivery* means " ... the identification and transformation of undeveloped land into serviced land for residential resettlement". In order for land legislation to meet the demands of the state subsidised housing market, and thus

of land due to racially based laws, passed since 1913. Land Tenure Reform aims to provide people with security of tenure. This study focuses on the Land Redistribution as a means of providing land for the poor. Land allocated within the Restitution process, can only be reactively incorporated into a housing programme, whereas the Land Tenure Reform forms part of land registration and tenure options of a housing-delivery programme.

The Redistribution Programme largely depends on transactions between buyers and sellers, with the state acting as a facilitator. The price paid for the land depends on its market value determined by valuation, and endorsed by an independent valuer. The role of the government is that of a "... facilitator, provider of information and guardian of the principles of valuation and compensation", (RSA, 1997c:5). The rights of existing property owners, and the compensation received in the event of their land being negotiated are protected in the constitution. Under the Redistribution Programme, the state provides a capital grant of R18 400 from the Settlement/Land Acquisition Grant. This grant is administered in collaboration with the DoH. Each household is eligible to a maximum of R18 400 for housing and land needs. The reality is that it becomes difficult for an individual household to secure a parcel of urban land with R18 400 to build a basic house. Land release legislation aims to reduce the costs of land to ensure that the subsidy is not used for land acquisition only.

#### **4.4.2 Land release legislation**

The present strategy adopted, by which the poor gains access to urban land, is primarily through illegal occupation or land invasion, which is most destructive to proactive planning. Not only land, but also newly built houses for low-income earners are invaded, as in the case of Philippi and Tafelsig on the Cape Flats (Cavanagh, 1998). To solve this problem, the Western Cape Planning and Development Act (PAWC, 1999), Development Facilitation Act, (RSA, 1995) and Less Formal Township Establishment Act, (RSA, 1991) create a possibility for rapid land release.

##### **(a) Less Formal Township Establishment Act (Act 113 of 1991)**

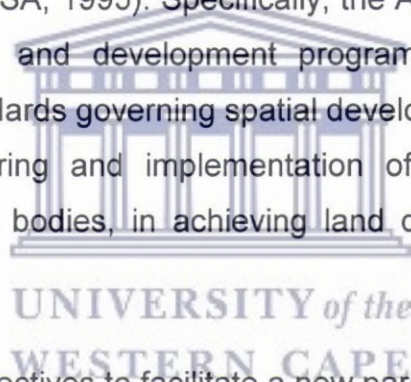
Act 113 of 1991, called the "Less Formal Establishment Act", allows for the acquisition of land through purchasing, expropriation or other means, for the establishment of a township. This Act allows the land to be released within sixty days, provided the

applicant complies with regulations. The Act also makes provision for immediate occupation of the designated land, even before a general plan is approved and any compensation for the particular erf is provided.

Although this Act was formulated as part of the apartheid ideology, it makes valuable contributions to the speedy delivery of land. The DFA and the WPDA have consequently taken cognisance of the merits of this Act, in formulating the new legislation. The Provincial Administration of the Western Cape used this Act to make land available for low-income housing in its iSLP, before the WCPDA was promulgated.

(b) The Development Facilitation Act (Act 67 of 1995)

The DFA was formulated to integrate planning and development at local, metropolitan, provincial and national level, until a review of all existing legislation in relation to land and development is undertaken (RSA, 1995). Specifically, the Act aims to speed up the implementation of reconstruction and development programmes and projects, by providing national norms and standards governing spatial development. It also serves to facilitate the formulation, monitoring and implementation of criteria by which the performance of local government bodies, in achieving land development objectives, may be measured (PAWC, 1997).



The DFA sets out the following objectives to facilitate a new paradigm in urban planning and development:

1. to establish a development and planning commission at national and provincial level in order to formulate policy and advise on spatial development,
2. to establish development tribunals in each of the provinces, comprising members of the public services as well as land development experts from outside the public service. The tribunals serve as a decision-making body, and resolve land development conflicts between different spheres and departments in government.
3. to provide uniform procedures for the speedy subdivision and development of urban and rural land.
4. to promote security of tenure early in the development process to ensure more rapid release of subsidies (PAWC, 1997).

The Western Cape Provincial Government has identified various shortcomings of the DFA, which would render it less applicable in the province. The following are the principal objections (PAWC, 1997):

- 1 it is not fully participative in the drafting of its principles,
- 2 it is not sensitive to the local circumstances and initiatives,
- 3 it does not accelerate development within the Western Cape,
- 4 the costs incurred in implementing this interim measure could be best spent on developing legislation for the province,
- 5 it restricts the premier's ability to expedite development, by giving the tribunals more power, and
- 6 the autonomy of the province is questionable as the relevant national minister instead of the premier would have provincial legislative power.

(c) Western Cape Planning and Development Act (WCPDA) (Act 7 of 1999)

The WCPDA was formulated because the Development Facilitation Act does not comprehensively address the planning needs of the Western Cape (PAWC, 1999). The WCPDA (enacted 1 July 1999), does not replace the DFA entirely, but only certain parts of the legislation that is not applicable to the Western Cape Province.

The Act replaces the racially based planning and development legislation. It provides a coherent framework for planning and development, consolidating provincial planning, regional planning and development of urban and rural areas. The Act addresses the need for speedy access to land in a complete chapter, entitled; "Accelerated Development", which aims at making land "... urgently available with due regard to provincial or regional interest, for subsidised housing..." (PAWC, 1999:19). This chapter strongly corresponds to the chapter 6 in the DFA, dealing with Land Development Procedures. The Act thus leads to the circumvention of the setting up of new tribunals and commissions, by utilising existing structures of a municipality. The major criticism against this legislation is the excessive power assigned to the relevant provincial minister.

## 4.5 Accelerated Release of Land

Legislation provides the municipality with the framework, within which to draft a policy on the rapid release of land. The above-mentioned legislative documents accept that land should be made available for occupation. The legislation allows for the settlement of people directly after the surveying of the land, even before a general plan for the area is approved or payment made. By advancing the release of land for occupation (without the construction of dwellings) the government accepts that informal housing remains part of the urban landscape. The WCPDA does not provide a time frame between the identification of land and approval for occupation. This may result in the process being delayed, and the land consequently occupied and making legal occupation difficult. This poses a problem for the development of a higher-density residential development where completed dwellings are the end product. The legislation does not make provision for preventing or removing illegal occupation. The WCPDA does not provide the housing authority with enough power to secure land for low-income housing.

Given the legislative context, municipalities can still compile an accelerated land procedure for public land. Based on the WCPDA, the procedure must include the following elements;

1. identification of developable public land,
2. upfront community involvement,
3. identify eligible beneficiaries,
4. drafting of development plan,
5. application for development and removal of restrictions,
6. application for subsidies,
7. surveying of allocation of land parcels, and
8. construction of dwellings, or informal occupation of land.

The identification of developable vacant land should be affordable for the project. Ideally, this should be land that requires little or no earthworks. An accelerated project should have the approval and continual communication with the beneficiary community to ensure that there is a common understanding and expectations. The beneficiary community can also act as land police by alerting the authorities of land invasion.

## 4.6 Proactive Measures of Securing Land for Housing

The above approaches can lead to the rapid release of public land, however, not all public land is suitable for low-income housing. There are vast tracks of land belonging to parastatal and private enterprises that can contribute to the overall development of a sustainable, low-income higher-density housing strategy for the CMA.

Approaches adopted to secure land for future low-income housing projects are through, (1) land banking, (2) cross subsidisation and (3) regulation of development rights. The landowners generally do not favour these approaches, because they have to release their land against compensation.

### 4.6.1 Land banking

Land banking (the mechanism for securing land for future low-income housing needs) is a viable approach where there are large tracks of land within and adjacent to the urban edge. The mapping exercise is therefore the crucial step in identifying such land. At present, the only area with large tracks of vacant land, mostly farms, is in the Blaauwberg area. The future growth and development of the metropolitan region is up the West Coast. According to Wolfson, (1991), the purchase of land for banking, can be made affordable, by removing available land from the property market and therefore diminishing any chances of speculation.

Wolfson (1991), outlines three methods of land banking; (a) regulation and reservation, (b) the use of state land holdings and (c) purchase. The regulation and reservation of land mean the zoning of land for housing, specific for the development of low-income housing. State land holdings are another means of securing land; however, the state has to possess large tracks of urban land to put in a trust. In the CMA, there is not sufficient land for this approach. The third approach is by means of direct purchasing. Although it is very costly, it can help meet the future requirements for urban land. Land that is purchased, can be planned very carefully within the framework of the MSDF to accommodate the future growth of the city. The farmland in the Blaauwberg Administration may fall outside the urban edge at present, but the reality is that the city is growing in that particular direction and proactive planning can thus take place. Land banking can be very expensive, but it is a proactive means of assuring land for development by limiting speculation. The disadvantages of land banking are that it

requires time and resources to set up a programme and it can be very costly to purchase land (Clarion Associates, 1995).

#### **4.6.2 Cross Subsidisation**

Wolfson (1991) further discusses cross subsidisation and land readjustment as means to secure urban land for low-income housing. With this approach the state temporarily expropriates the land, which cannot be purchased for immediate development or banking purposes. After it has been developed with services, the owner is given a portion of the land, to the approximate value of the land expropriated. Incentives are provided to developers to ensure a mixed use of the land. Tax incentives are the most lucrative. Major companies can be encouraged to invest in a particular area at lower taxes. The cross-subsidisation approach encourages companies to assist in the financing of low-income housing, adjacent to their new location, and thus ensures a labour pool. In the most recent case of a proposed cross-subsidisation strategy in Cape Town, a pristine portion of the Table Mountain slopes, Oudekraal, were proposed to be developed, and in return, the developer would commit R2 billion for low-income housing on the Cape Flats (Gosling, 1998). This particular proposal is unacceptable, in that it tends to destroy a spectacular piece of natural beauty, and also exploits the dire need of housing for the poor. It contributes to the division of the city by separating the development from the poor. The intentions of cross-subsidisation are to help ensure an integrated approach to development, and aiding the poor.

#### **4.6.3 Regulation of development rights**

Regulation of development rights is another strategy in which a local authority secures land for low-income development. The zoning of land provides a framework for development and thus, effective, proactive planning. Linked to the regulation of development is the “dedication” approach, adopted by the local government of Colorado in the United States of America (Clarion Associates, 1995). Under this approach, new developers are either committed to pay for the bulk infrastructure provided to them, or to commit funds to the development of housing projects. The “dedication” approach is very flexible because the developer also contributes to the development of various facilities, including parks, libraries, schools, roads, etc. This approach ensures that the private sector is involved in providing much-needed funds for the development of communities, where state funds are limited or non-existent.

Within Philippi East the vast tracks of developable land (73%) are privately owned. A rapid land release programme is more easily applied to publicly-owned land as it can be transferred from the public body, directly to the beneficiary. Privately owned land must be bought first, or as a last resort expropriated, before it is made available to a beneficiary. This is a lengthy process and delays housing delivery. A potential development node such as Philippi East requires strong public intervention for its success. However, the lack of public land retards public investment, and therefore an approach to secure privately owned land is crucial.

Cross-subsidisation is a viable option for Philippi East. The state has to provide private landowners with bulk infrastructure and in return land parcels can be relinquished for higher-density residential development to facilitate the development of the node. Tax incentives to investors should be implemented. This approach could be coupled with “dedication approach”, mentioned earlier. Private land developers decide whether to assist in providing part of the land for housing, or to develop part of the urban infrastructure. This would free necessary funds, to be used in developing low-income higher-density residential dwellings. In the case of Philippi East, negotiations to secure private land for low-income residential development should be a top priority before private investment develops the 78% developable vacant land.

#### **4.7 Conclusion**

Vacant developable urban land is increasingly becoming more of a valuable resource. Within the context of the CMA, Philippi East is a valuable asset. Within its boundaries there is strategic vacant land with huge potential for development that could benefit the entire metropolitan region. The WCPDA provides the necessary tools to develop an accelerated land release programme but lacks the power to enforce such a programme.

Although an accelerated land release programme can be applied to privately owned land, the act does not provide clear guidelines to cover all aspects when dealing with privately owned land. Expropriation is the ultimate last resort. In Philippi East, where most of the land is in private ownership, cross-subsidisation and the regulation of development rights appear to provide a framework in which private land is made



available for low-income higher-density residential development. These two options ensure public-private cooperation.

The release of private land for higher-density residential development increases the threshold within the area, and positively contributes to economic development. The identification of appropriate design of residential units to facilitate higher-density residential neighbourhoods is thus crucial to ensure that the available land is optimally used. Philippi East cannot sustain high-rise residential blocks and therefore, the contextually appropriate design is low-rise, higher-density residential development. The next chapter outlines the contextualisation of densification and its application to Philippi East.





**CHAPTER 5**

**HIGHER-DENSITY RESIDENTIAL DWELLINGS**

UNIVERSITY *of the*  
WESTERN CAPE

## 5.1 Introduction

Densification is one of the most misunderstood planning terms. This is mainly the result of the various ways of defining it. Densification is an effective planning tool to combat urban sprawl and to create a functional urban form.

Many suburbs in Cape Town are exclusive residential zones located far away from employment or other urban service centres. The available vacant land within the urban edge is diminishing, while the prices of raw and serviced land is escalating. Population numbers and the use of private transport are also increasing and commuting times becoming longer. Due to escalating building and land costs, people are forced to live in smaller houses built on smaller plots. Although the house and plot sizes are decreasing, the residential form does not promote a functional urban form, mainly as a result of freestanding house designs.

The aim of this chapter is to first define the appropriate residential density for Philippi East, and secondly to assess factors that facilitate higher-density residential development in Philippi East.



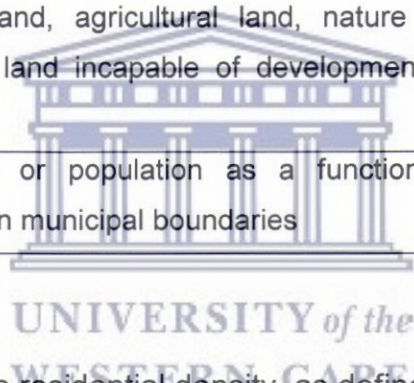
## 5.2 Defining Residential Density

The measure of residential land-use intensity is expressed as residential density. Depending on the purpose of the measure, different types of densities can be calculated for a specific area. Density can be calculated using both population and dwelling units and is applied in many different ways. For the purpose of this study, “higher-density “ refers to semi-detached and row housing and two storey walk-ups.

Hoffa (1999) argues in favour of the use of net density when calculating housing density (Table 5.1). This calculation is very effective when working with sample areas in which field surveys can be done to verify the use of the land parcel as residential. Calculating net densities provides a more accurate representation of the intensity of the residential land-use component of an area, but isolates it from the other uses such as educational or health land-uses. The use of a net calculation produces a skewed representation when analysing a large residential area and thus indicates a high intensity of residential land-use.

Net or Site Density	Dwelling units or population as a function of the area of land used only for residential purposes, including the garden and off-street parking, if any.
Residential Area Density	Dwelling units or population as a function of the contiguous area of land used for residential purposes as well as half the width of perimeter roads.
Residential Neighbourhood Density	Dwelling units or population as a function of the residential land as well as roads, local shops, schools, service facilities, and parks and open spaces servicing only local needs.
Urban Area Density	Dwelling units or population as a function of residential neighbourhoods plus other urban land uses such as industry, commerce, tertiary education, transportation facilities, and formal city parks and recreation areas, but excluding undeveloped land, agricultural land, nature areas, nature reserves, and land incapable of development at affordable cost levels.
Municipal Area Density	Dwelling units or population as a function of the area contained within municipal boundaries

**Table 5.1** Definitions of density  
Source: Hoffa (1999)



For the purpose of this study, gross residential density, as defined in table 5.1, provides the appropriate calculation because it is inclusive of the service available to the community, as well as the other land-uses. A residential density calculation must be contextualised with the other land-uses as the increase in population necessitates a parallel increase in services. Thus, residential neighbourhood density can be used to assess the residential density of complete neighbourhoods, whilst net dwelling density can provide a representative sample for the neighbourhood. For the purpose of this study, both expressions of density will be used.

### 5.2.1 Comparison Between Net Dwelling and Residential Neighbourhood Densities

To illustrate the difference between net dwelling density and residential area density, four residential areas within the CMA were analysed. The areas, Delft, Bonteheuwel, Hanover Park, and Summer Greens, were chosen as representative areas in which some form of low-rise higher-density residential development occurred. Developed street blocks for each area were selected at random as samples for analysis.

Bonteheuwel and Hanover Park were built as working class coloured residential areas during the 1960's and 1970's. The house types included two storey walk-ups, row houses and semi-detached dwellings. Delft is a residential area started in the early 1990's for low-income groups. The house types are single freestanding dwellings on even smaller than found in Bonteheuwel and Hanover Park. Summer Greens is a middle-income residential area developed in the early 1990's. The house types vary from single freestanding dwellings, semi-detached houses, row houses, two- and three storey walk-ups. The findings are summarised in table 5.2.

Residential Area (sample street block)	Area (m <sup>2</sup> )	Number of erven	Largest Erf (m <sup>2</sup> )	Smallest Erf (m <sup>2</sup> )	Average size of erven (m <sup>2</sup> )	Net dwelling density (du/ha)	Residential neighbourhood density (du/ha)
Delft	5870	25	267	219	234.8	42.3	21
Bonteheuwel	12694	65	593.7	80.26	195.2	51.1	19.7
Hanover Park	4079	28	275	98	145	70	19.9
Summer Greens	4492	40	187	89	112.3	88.8	31.4

**Table 5.2 Comparison between net dwelling and residential area densities**

Net dwelling and residential area densities were calculated for each area. The former density was calculated by selecting a street block containing residential dwellings only. The latter was calculated by using information on the entire residential area. It is evident that there is a great difference in the actual figures, representing the two different types of density. The variance is as a result of the factoring in other land-uses than residential. It is thus important to identify other land-uses to contextualise residential area density. This is important for Philippi East in which the proposed higher urban densities should be developed, using both density calculations because the provision of urban services should be directly related to the density of the area.

The unsustainable use of public urban land in Delft, where the average erf size is 238.4m<sup>2</sup>, cannot be applied in Philippi East. Of the four areas analysed, Summer Greens has the highest residential area and net dwelling densities. This residential area, which is middle-income and privately developed, is a result of the market economy. Investors wanted to maximise their profit margin by building more dwellings on smaller plots.

### 5.3 Motivation for Densification

Increasing residential densities is motivated by the vision of creating a sustainable functional city that can only be realised through compaction to effectively utilise urban land, protecting valuable agricultural land and preventing sprawl. To achieve a compact city, urban densities must be increased to levels higher than the present. Ensuring an effective compact urban environment, inter-sectoral cooperation is crucial to developing high-density urban environments. Increase in land prices and building costs are also factors motivating for high urban densities.

There are a number of ways in which high residential densities can be achieved, these include;

1. infill development or new development on a vacant or under-utilised site,
2. redevelopment of existing development (can involve the consolidation of erven),
3. consolidation of informal housing,
4. conversion of existing buildings,
5. subdivision of larger erven to accommodate larger densities,
6. additional dwellings on existing erven,
7. redesign and redevelopment of poorly functioned areas with strategically located infill to create improved urban environments (GMC, 2001b).

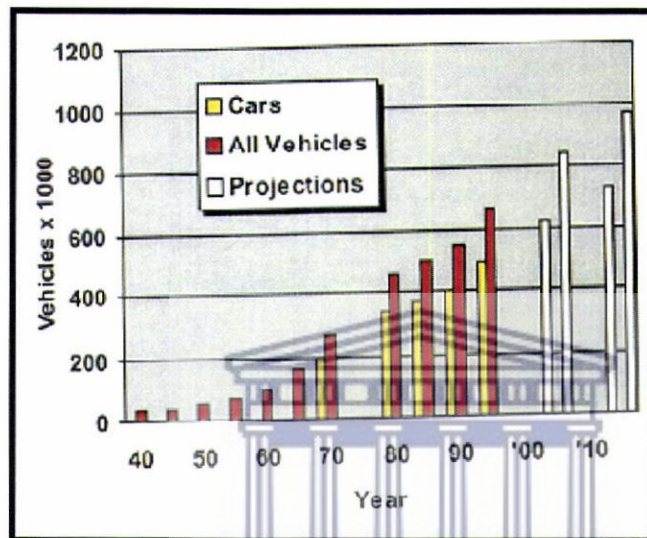


#### 5.3.1 Sprawl

Sprawl is socially, financially and environmentally undesirable. One of the major reasons for encouraging higher-density residential development is to contain urban sprawl in order to create a functional urban environment.

In the last six decades, the growth in private vehicle ownership has increased dramatically which is an indicator of both economic and urban growth (Graph 5.1). The Cape Metropolitan Area's built environment has grown by 20% over the years spanning 1988 to 1996 (CMC, 2000a). The growth pattern is a disparate one, with no indication of focussed development. This growth is both informal and formal. The two above urban indicators point to definite urban sprawl characterised by extensive pollution, in the form of noxious gasses, solid waste and noise.

Urban sprawl can be contained through the delineation of an urban edge, also called an urban growth boundary or green belt. The urban edge can be legally proclaimed and enforced. This strategy, amongst others, can effectively contain urban sprawl and thus promote medium residential densities, where population thresholds increase thus leading to improved services at reduced costs, i.e. “economies of scale”. Within the context of providing social services, whether healthcare, education or public transport, high population densities will justify the availability of such a service.



**Graph 5.1** Increase in private car ownership  
Source: CMC ( 1998e)

By containing sprawl, the urban and rural areas will not be set free of pollution, but the impact will be minimised to ensure that the remaining natural environment is protected, and that the quality of urban life is improved. Also, this is a strategy to ensure that valuable agricultural land, close to the city, is protected, to ensure a close supply of fresh produce, and minimise high transport costs, which could increase food prices.

Increasing urban residential densities and delineating an urban edge are not to protect the rural areas only, but also to create an efficient urban form. The notion of an urban edge is not to create one built-up area, with green areas beyond it. Rather, it attempts to maximise the use of urban land. Figure 5.1 illustrates the concept of an urban edge. In the case of Cape Town, an urban edge will promote the sustainable use of land within its boundary, while an edge around towns such as Stellenbosch and Paarl prevents sprawl and protects the character of the town and more importantly preserve valuable agricultural land.

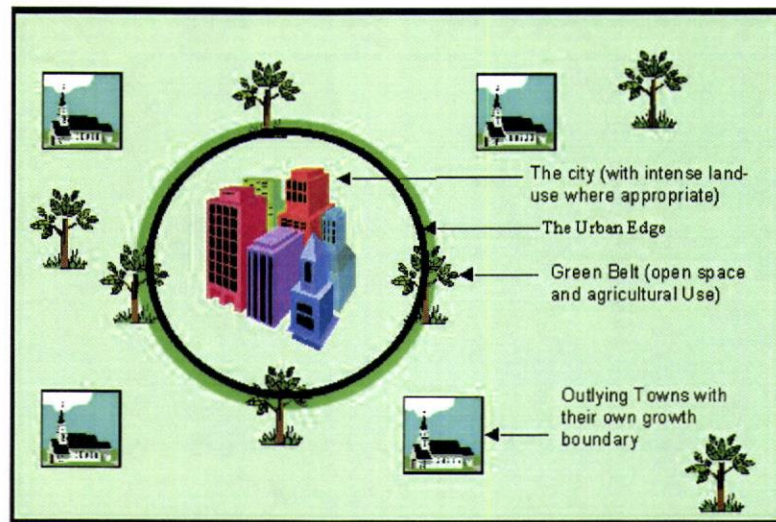


Figure 5.1 Urban Growth Boundaries

### 5.3.2 Building Costs

Building at higher residential densities can also reduce building and associated costs. The common foundation, the sharing of walls, the continuation of roofs across dwellings, the reduced number of cables, water and sewer pipe connections, are financial savings that can be passed on to the homeowner. The close proximity of the residential dwellings will save the local authority on the installation of bulk infrastructure that eventually passes on to the beneficiary who does not repay these services at a high cost. According to Hoffa (1999), a saving of between 40-400% can be attained with infrastructure provision alone. These measures assist to maximise the housing subsidy, and reduce the input costs of the beneficiary.

### 5.4 Planning and Building Regulatory Frameworks

The White Paper on Housing (RSA, 1997b), acknowledges that urban densities need to increase. Although this is acknowledged at national government level, it is the planning and building laws governed by local councils that inhibit such development. The Western Cape Planning and Development Act uses the general principles of the Development Facilitating Act, which promote efficient and integrated development by “discouraging urban sprawl in urban areas and contribute to the development of more compact town and cities” (RSA 1995, 3(1)(c)(vi)). Philippi East has the advantage that it is under- and undeveloped. Therefore, it is less problematic to ensure that the land is made available for higher density development.



Policy measures that promote and restrict residential densification include, dual occupancy provision, subdivision provision, density controls, conditional rezoning and subdivision, incentive zoning, property taxation, planning guidelines, removal or reduction of the subsidies of sprawled development (Hoffa, 1999; Behrens, 1993, CMC, 2001b). However not all these measures listed above can be applied in Philippi East except the density controls, incentive zoning and property taxation.

#### **5.4.1 Density controls**

This approach allows predefined residential densities within a given area (Hoffa, 1999). In the case of Philippi East, predefined densities should be part of the zoning regulations to meet the desired targets. Density targets were implemented in Karachi, Pakistan, and the result is restricted urban sprawl, reduced land costs and increased number of serviced erven (Behrens, 1993).

#### **5.4.2 Incentive zoning**

Incentive zoning involves a tradeoff between the local council and the developer, in which the latter is permitted to develop more floor area in return for improved public facilities or construction of low-income dwellings (Hoffa, 1999; Behrens, 1993). This policy measure can successfully be employed in Philippi East where 73% of the developable land is in private ownership. In Philippi East, the development of low-income higher-density housing by private enterprise could be owned by the private enterprise, but secure tenure provided to tenants.

#### **5.4.3 Property taxation**

The taxation on land usage could promote densification. Instead of taxing the development on the land, taxation should be based on the land area developed. In this way, landowners would seek to maximise floor space (Behrens, 1993). This taxation can be coupled with incentive zoning for Philippi East.

### **5.5 Policy Measures Restricting Densification**

The policy measures restricting densification include; density controls, zoning scheme regulations, title deed restriction, and pragmatic space standards (Behrens, 1993). In the case of Philippi East, the restrictive policy measures can easily be overcome by

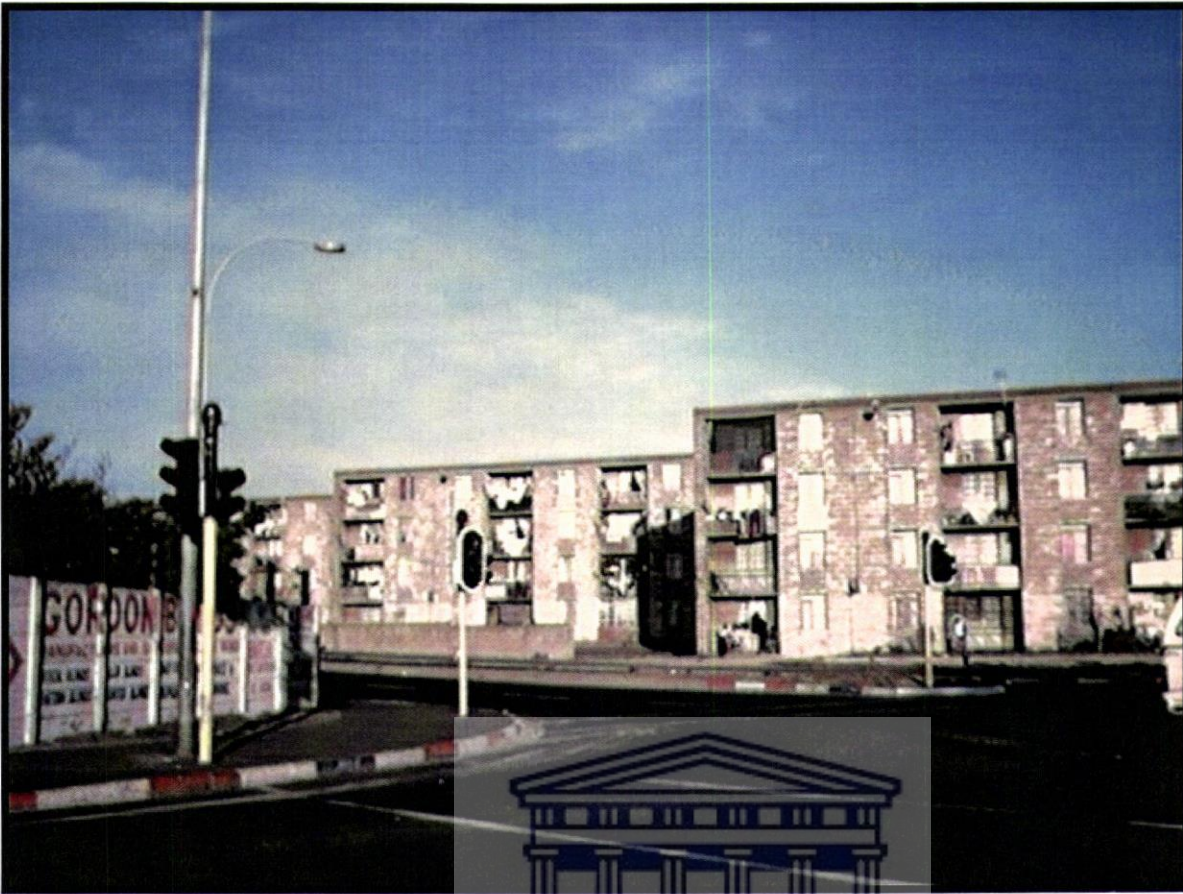
applying the DFA (RSA, 1995) and the Establishment of Less Formal Township Act (RSA, 1991). These Acts make provision for removing restrictive controls.

## **5.6 Appropriate Higher-Density Residential Structures in Philippi East**

The format of higher-density residential development is a design that requires serious consideration. Inappropriate higher-density residential development, such as on the Cape Flats, can have adverse effects on the community as it does not allow a sense of privacy and communal private space (Plate 5.1).

To avoid repetitions of such developments, six criteria guiding the location of higher-density residential development have been developed (CMC, 2001b). These include; (1) the natural environment, (2) the built environment, (3) existing infrastructure, (4) types of activities and land-use in the surrounding area, (5) land-use in the immediate area, and (6) social and economic context.

The appropriate higher-density residential neighbourhood design for Philippi East differs dramatically from other three mature metropolitan nodes (Cape Town, Bellville and Wynberg/Claremont). These nodes have a high-density middle to high-income residential component. Higher-density low-rise developments are contextually appropriate for Philippi East given the facts that the immediate residential surrounding areas are single-storey developments, it is close to an international airport and that the prospective residents will not be able to afford the maintenance costs associated with high-rise buildings.



**Plate 5.1** Inappropriate high-density low-income residential developments on the Cape Flats

Low-rise higher-density residential housing development is not uncommon in South Africa. This dwelling form has been successfully applied in Cape Town. For example, the Bo-Kaap and Woodstock development are low-rise higher-density built forms. These two areas have developed “naturally” over the last 100 years, and therefore, this type of development does appeal to residents (Plate 5.2). The development of row houses from the 1950's have focussed more on housing people, than on creating quality urban environments. These dwellings were typically a row of rectangles and each rectangle is divided into four rooms.

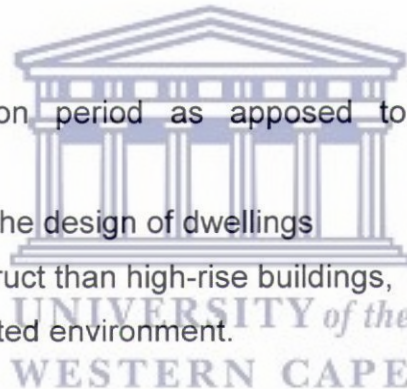
Appropriately designed low-rise higher-density residential development has significant benefits if applied correctly. Arrigone (1995), outlines the benefits of low-rise higher-density residential developments to include:

1. upgrading of the unit through self-help,
2. expanding the requirements and affordability of the owner,



Plate 5.2 Row houses in Bo-Kaap

3. shortening the construction period as apposed to high-rise high-density developments,
4. provision of a variations in the design of dwellings
5. it is much cheaper to construct than high-rise buildings,
6. it does not create a congested environment.



To achieve an effective increase in urban densities, plot sizes should not exceed 180 m<sup>2</sup> (Arrigone, 1995). Evidence from examining the four sample areas supports this argument (Figure 5.3). With the reduction in erf size, there appears to be a direct increase in net dwelling density (Figure 5.4). Land-use development policies should thus reduce the size of erven of new residential development, especially state-assisted ones. This allows an increase in development that increases the urban density. However, as stated earlier, the residential unit design is an important aspect in insuring that the area is acceptable.

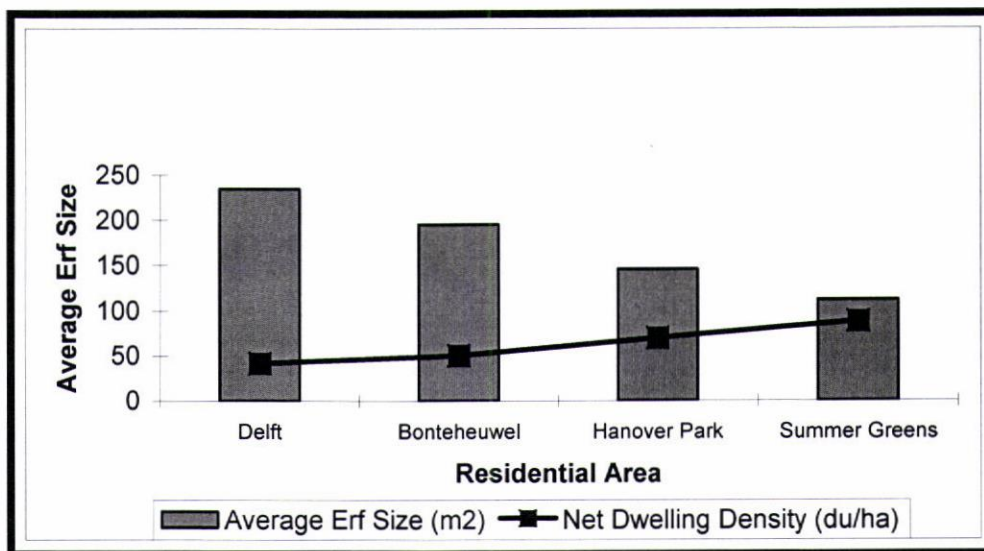


Figure 5.2 Correlation between erf size and net dwelling density

Data Source: CMC

## 5.7 Facilitating Higher Densities in Philippi East.

(The images of dwelling designs were created using the software programme *Floorplan 3D*.)

### 5.7.1 Erf sizes

Generally, the erf sizes for low-income residential developments need to be reduced. The Delft low-income residential development is expanding into Philippi East, and can thus have a negative effect on the development of the node. Appropriate erf sizes should be linked to the size of the low-income residential developments. The average erf size of 234.8 m<sup>2</sup> in Delft can be reduced to approximately 120 m<sup>2</sup> and 80% built coverage permitted.

A hypothetical street block in Philippi East can contain 45 erven, with erf size ranging from 80m<sup>2</sup> to 120m<sup>2</sup>. The average size would be 100m<sup>2</sup> and the total area 4100m<sup>2</sup> or 41ha. The net residential density for the area would be 109.7 dwelling units per ha, with a permissible built coverage of 80%. The design of the dwelling units should allow each resident the opportunity to increase the dwelling size. Therefore, each unit, whether single or double storey, has a direct access to a plot.

### 5.7.2 Single-storey row dwellings

Single-storey row dwellings have been built since the turn of the century. In Bo-Kaap the row houses have been built as Malay quarters in the late 1800's and early 1900's. Eastern architectural techniques have had a definite influence on the design of the houses. With the establishment of townships since the 1950's, row houses have also been built for low-income families. However, these houses are not similar to the houses in Bo-Kaap because of differences in the design, location and environmental conditions.

In areas such as Bonteheuwel and Langa, row houses are built on plot sizes of 200m<sup>2</sup> - 400m<sup>2</sup> even though the dwelling itself is only approximately 48 m<sup>2</sup> in size. The inefficient use of the land results in low residential densities. Applying this single storey row house design can result in a significant drop in building costs. There is cost saving in the provision of services (water pipes, sewerage pipes, electricity cables), bricks and mortar (a continuous foundation, and common walls) and roofing (figure 5.3 and 5.4). By applying different roof sloping designs as well as variations in the frontage, the potential for monotonous design can be overcome.

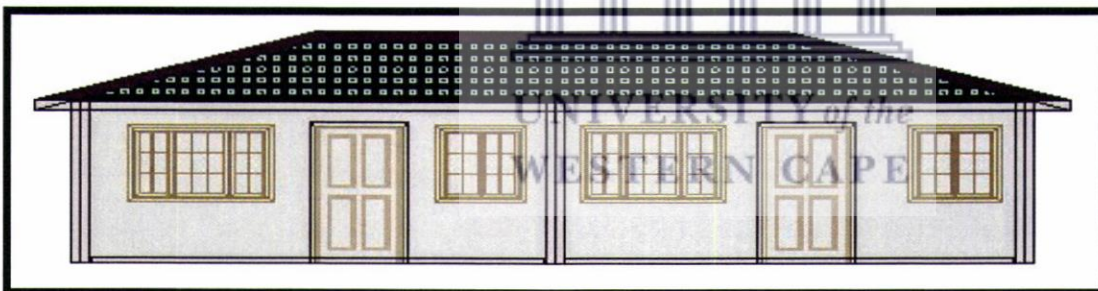


Figure 5.3 A design of semi-detached housing units

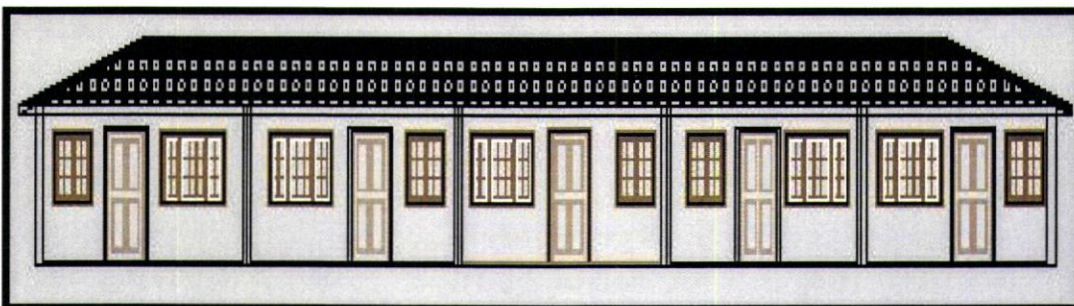


Figure 5.4 A design of single storey row housing units

### 5.7.3 Two-storey row dwellings

Two storey dwellings can be single or detached or as row houses. These types of dwellings usually have the kitchen, living room and bathroom on the ground floor and the bedrooms on the first floor. Detached two-storey dwellings were built during the late 1970's and early 1980's in Mitchell's Plain, as housing provision for the displaced coloured people. This type of dwelling certainly increases residential density significantly. However, like the single row dwellings, the centre units expand to the front or back only. Vertical expansion is an expensive alternative. This type of design should be carefully applied as it can create a claustrophobic feeling. The cost incurred in constructing a first floor can be recovered by the sharing of walls, foundation, cabling, pipelines and roofing (Figure 5.5 and Figure 5.6).

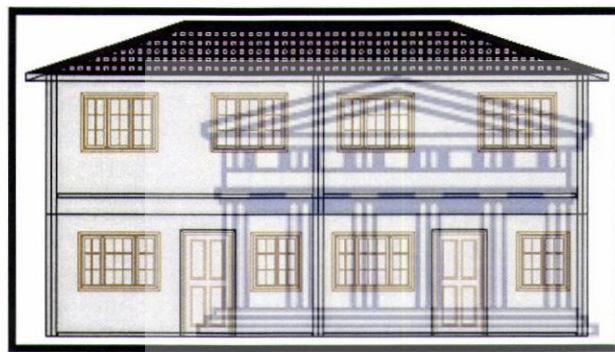


Figure 5.5 A design of semi-detached two-storey housing units

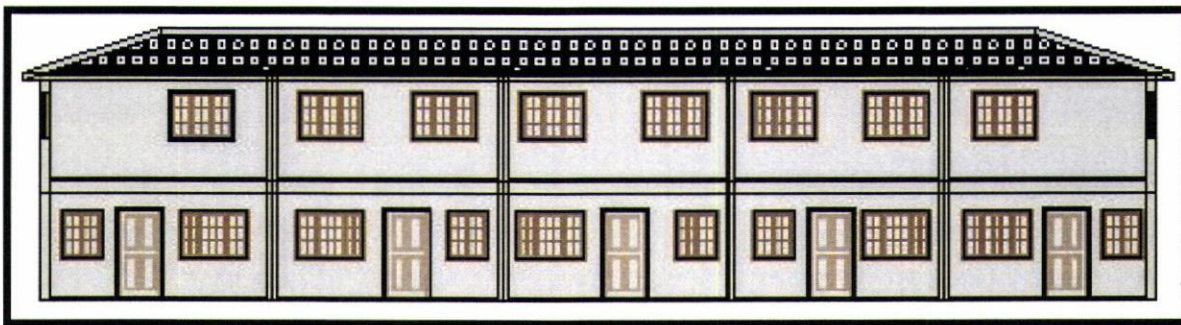


Figure 5.6 A design of two-storey row housing units

### 5.7.4 Courtyard housing

Courtyard housing can be developed as single or two-storey (Figure 5.7). The positive attribute is that it creates a common courtyard with relatively safe spaces. Caution

should be taken when designing the position of front doors, as an offset of doors will provide the necessary privacy.

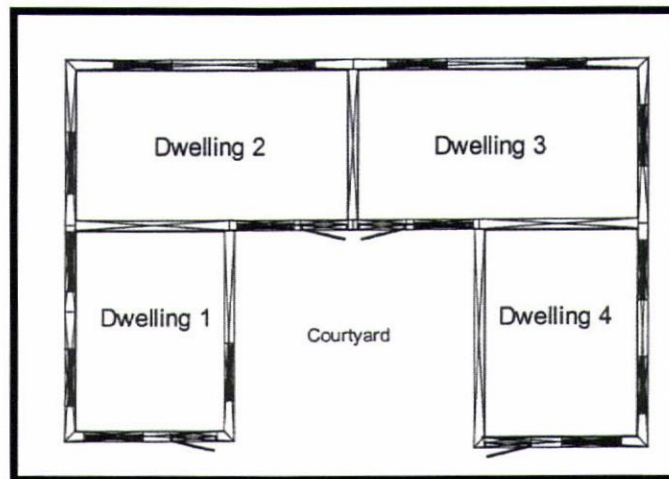


Figure 5.7 A design of a courtyard development

## 5.8 Elements of Neighbourhood Design

Neighbourhood design is an important aspect for facilitating sustainable housing delivery. The layout of a specific area refers to the “spatial configuration of road networks, block alignments and erf sub-divisions” (RSA, 1996b). The current design of low-income residential neighbourhoods is more focussed on creating smaller residential plots, and thus neglects to incorporate other important land-uses within the micro-urban landscape. It further perpetuates the need to travel to centres of economic, social, health and recreational facilities. Innovative neighbourhood housing design methods need to be explored to identify ways of creating functional, liveable communities. The innovative design techniques need to promote higher urban residential densities by addressing the following issues:

- 1 creating a neighbourhood layout that is socially and economically viable,
- 2 creating open spaces that contribute to the quality of living,
- 3 increase the safety of residents,
- 4 promoting entrepreneurial activities,
- 5 taking cognisance of the culture of the communities.
- 6 creating pedestrian-friendly neighbourhoods,
- 7 ensuring access to public transport, and
- 8 integrate different land-uses.




Creating an alternative approach does not imply a totally new layout plan, rather it is to extract the positive aspects from the existing plans.

## **5.9 Conclusion**

The need for higher-density residential neighbourhoods is fast gaining momentum. Urban sprawl is occurring at a rapid rate, which is costly to the consumer. Old development standards, which led to generous erf sizes, are now unsustainable. The compaction of the existing urban areas should be done systematically and contextually appropriate. The housing design and neighbourhood layout should create a sense of belonging and community identity, which is often absent in the low-income neighbourhoods. The need for residential densification appears to be recognised by the national government, but no concrete implementation strategies have been put in place. There appears to be a gap between national policies and local planning guidelines.

The building of dwellings is linked to the availability of finance from central government and the private sector. It is argued that the available subsidy dictates the perpetuation of low-density residential development because higher-density development is relatively expensive, and thus unaffordable to the state and people. The next chapter examines the current financial arrangements to assess how higher-density residential development is financed in Philippi East.

**CHAPTER 6**  
**ACCESS TO FINANCE**



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## 6.1 Introduction

The process of accessing state finances for housing delivery has received criticism for its bureaucracy. Once the state subsidy has been released, beneficiaries find it difficult to access additional private finance to build a decent habitable dwelling. Additionally, the regulations of the banking institution do not allow low-income earners access to funding, hence people resort to searching finance from micro-lending institutions and then finding themselves entrapped in relatively huge debts.

Without the necessary funding the identification of land, and the design of functional higher-density dwellings and neighbourhoods can be a futile exercise. The aim of this chapter is to examine the sustainability of current financial arrangements for housing delivery. The existing public and private financial institutional arrangements for low-income earners are examined and alternative methods of financing are discussed. This analysis provides an insight of the strategies to finance higher-density residential development in Philippi East.



## 6.2 Housing Affordability

Housing affordability relates to the ability of a household to repay all costs incurred (i.e. an additional loan, municipal rates, taxes, water and electricity), over and above the housing subsidy to obtain and maintain a house. Many households qualify for a state subsidy, but cannot meet the costs of owning a house. Linked to affordability is the unwillingness to repay the housing costs, which is an outright defiance of responsibility. Households are also forced to prioritise expenditure; and depending on the importance of other needs, housing repayments may be a high or low priority.

## 6.3 State Housing Subsidy Arrangements

### 6.3.2 Provincial housing board

The Housing Act empowers provincial governments with the administration of subsidies for low-income housing (RSA, 1997a). Within the provincial government, a Provincial Housing Board (PHB), was established to deal with the application for subsidies provided by the central government through the PHB. Prospective homeowners are encouraged to form part of a housing project administered by a project manager, and

According to the 1996 Population Census, 26% of the economically active population in the CMA, earn less than R1 000 per month; 40% earn between R1 000 and R2 500 per month, while 18% between R2 501 and R4 500 per month (Table 6.2)

Less than R1 000 per month	26%
Between R1 000 and R2 500 per month	40%
Between R2 501 and R4 500 per month	18%
Between R4 501 and R8 000 per month	10%
More than R8 000 per month	5%

Table 6.2 Monthly incomes for the CMA  
Source: CMC (2000)

Most of the qualifying applicants for state housing subsidy receive R11 500. The beneficiaries require additional funding to build decent dwellings of at least four rooms. Since 1994, the housing subsidy increased by 6.6%, while inflation eroded the subsidy by 25%, over the same period (Business Day, 2000b).

## 6.5 Building Costs

The research conducted by the Development Action Group in 1993 indicated that the individual freestanding low-density dwelling development costs R46, 715.00 for a 34m<sup>2</sup> home, R10 707,46 more than a high-density infill development unit of 38m<sup>2</sup>. Table 6.3 compares the costs of two types of development. The main cost saving for the high-density development is the utilisation of existing services.

Table 6.3 reflects the costs as at 1993, it serves to illustrate that there is a saving in the construction of a high-density dwelling. The Urban Problems Research Unit, of the University of Cape Town, conducted a more recent exercise for the DoH (RSA, 1996b). The results also pointed towards cost-savings when building high-density housing. Figure 6.1 reflects the reduced cost of dwellings when building at high densities. The 4-storey dwelling unit is approximately 32% cheaper than the freestanding unit. The cost savings cannot go beyond five storeys because the elevator and maintenance cost offset any cost saving.

The research has proven that the building costs are radically reduced when plots are smaller, thus requiring less infrastructure and building material. Although higher-density

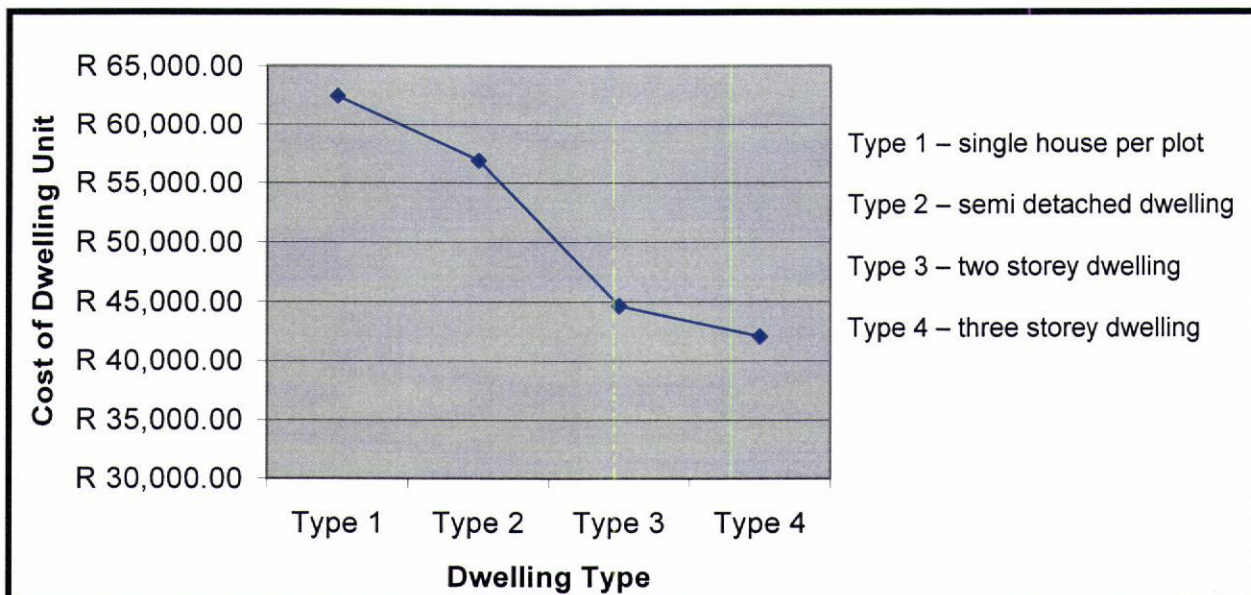
dwelling guarantee lower dwelling prices, a loan for additional finance is required. A higher-density dwelling unit, unlike the current freestanding dwelling unit, cannot be built for the total cost of the subsidy. The provision of privately owned dwellings appears to be unaffordable to the intended beneficiary, therefore the option of publicly owned higher-density dwellings need to be explored.

Comparison of lower-density development and high density infill development (cost in Rands*)		
Expenditure Items	Lower-Density	Higher-Density
Raw land	5,290.00	2,970.00
Bulk services	7,500.00	1,300.00
Watermains	1,199.00	457.69
Sewers	1,380.00	513.79
Stormwater drains	1,979.00	615.49
Roads	7,119.00	2,234.55
Electricity	1,500.00	1,500.00
Streetlighting	60.00	38.32
Building	14,000.00	20,200.00
Professional fees	973.00	973.00
Local Authority costs	2,142.00	2,142.00
Legal costs	700.00	700.00
Bond cost	681.00	681.00
Marketing costs	2,192.00	1,682.00
<b>TOTAL</b>	<b>46,715.00</b>	<b>36,007.84</b>

**Table 6.3 Comparison of freestanding with high-density infill development dwelling.**

(Source: DAG (1993).

\*All costs are calculated as at 1993



**Graph 6.1** Variation in the cost of dwelling types  
Source: RSA (1996b)

## 6.6 Provision of Public Housing

The Housing Act has moved the state's focus from the provision of public houses to the provision of individually owned houses (RSA, 1997a). Local government can no longer carry the financial responsibility of maintaining public housing. Where it is possible, tenants are encouraged to purchase the public dwellings for occupation. This shift was largely motivated by the huge arrears accumulated during the apartheid era, and hence continues to increase due to non-payment for services provided by the local government.

In the CMA, there are 44 194 rental units and 35 220 freestanding or semi-detached rental houses with the potential for sale (CMC, 1999c). The rental housing units are not sold due to increasing major maintenance required. In many cases, the deed registration complication with the flat units is also rendering it difficult to sell to the tenants (CMC, 1999c). The freestanding or semi-detached rental houses can be sold, however many of the occupants do not qualify for a bond, and therefore are not able to purchase it, or because of the arrears owed to council. Only when the arrears have been paid can the occupant apply to purchase the dwelling.

The DoH will not be expanding the public housing stock. Rather it is deemed more desirable to reduce the number of units in public domain. This approach is not

restricted to South Africa. Since the 1970's there was a drive to reduce the number of public housing units in the USA, because it consumes much of local governments budgets (Harloe, 1995). Germany also shifted the emphasis of its housing policy from social housing to private ownership after its unification (Harloe, 1995).

Globally, the welfare state has ceased to exist. It is accepted that local authorities can no longer afford to develop public housing. However, the state has a responsibility to provide its citizens with affordable housing. To achieve this aim, public-private partnerships should be established as these contribute to sustainable housing delivery. Thus, for the development of Philippi East, innovative financial arrangements are needed to assist in the construction of higher-density residential development. However, the provision of public housing still needs serious consideration. Local government needs to develop this resource and use it as a last recourse for the sector of the population that cannot afford to participate in the state housing subsidy programme.

## **6.7 Draft Home Loan and Mortgage Disclosure Bill**

It is not desirable for any government to intervene in the private market, especially the financial institutions. However, due to the banking sector persistently ignoring the government assisted market, legislation is being drafted forcing the banking sector to service this market. The Draft Home Loan and Mortgage Disclosure Bill are aimed at enforcing banks to institute fair lending practices, and to disclose this kind of information (RSA, 2000d). The bill proposes to set up an "Office of Disclosure" to monitor compliance with the proposed legislation to rate the institutions according to performance and make the information known to the public. Further, the bill aims to amend the definition of a home loan in the Usury Act. Through this bill, government acknowledges that it cannot sustain the provision of dwellings and that the private sector must take some social responsibility. This proposed Act is causing some concern within the banking institutions because it prohibits discrimination based on race, gender or location. Each loan applicant should be evaluated on merit.

Similar legislation is in place in the USA. (Johnson, 1998). The Community Reinvestment Act was introduced to force banks to provide financial access to low- and moderate-income groups. According to Johnson (1998), the Act was not adhered to

until the banks were rated on their compliance and those with regular low scoring for restrictions. Many banks invested in high risk areas to be seen as in compliance but in the process, made bad judgments. Implementing such an act in South Africa's volatile market should be done with caution. Until this bill becomes law, many beneficiaries are making use of the services of micro-lender institutions.

## **6.8 Public-Private Partnerships**

Local government has realised that alone it cannot deliver effective and efficient services to the public. This requires the involvement of the private sector in order to access much-needed capital. The establishment of public-private partnership has become necessary for the service delivery, thus, freeing local government to concentrate on more pressing concerns, such as housing.

A public-private partnership could result in the provision of services such as water, sanitation and waste removal. The council pays the company for the services rendered. The council is responsible for the collection of the rates and taxes from which the private company can be paid. This initiative involves entrepreneurs, with access to capital through a financial institution. A public-private partnership results in improved service delivery, the development of entrepreneurs, and the creation of employment opportunities.

The public-private initiative has not been extended to housing delivery. Housing delivery is viewed as a core function of provincial government, and is not handed over to a private enterprise. Housing delivery is perhaps one of the most important service delivery areas requiring full participation of the private sector as equal partners. The option of a public-private partnership for housing delivery should always remain a possibility. Such partnership contributes towards sustainable housing delivery programmes, and ensures that money made available to beneficiaries is recouped.

## **6.9 Securitisation**

An alternative to the traditional mortgage bond for low-income earners is securitisation which is the process whereby an agency steps in as a middleman between the bank and the mortgager. According to Kothari (2000), the bank repackages its loan to the





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## **CHAPTER 7**

# **SYNTHESIS & CONCLUSION**



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## 7.1 Introduction

The chapter synthesises the salient points drawn from both the primary and secondary data to assist in facilitating higher-density low-income residential development in Philippi East. General proposals for intervention are made to facilitate a speedy approach to high-density low-income residential developments in strategic areas. The chapter outlines the recommendations on areas of further research.

## 7.2 Synthesis

The development of Philippi East is crucial to the upliftment of the entire Metro South East. However, the study area is developing contrary to the development objectives of the MSDF. The research indicates that informal, unregulated development was larger and growing faster than the formal residential area. The development of formal low-income freestanding residential dwellings is perpetuating urban sprawl. The result is that Philippi East is characterised by both high-density informal housing, and low-density freestanding formal residential dwelling. Furthermore, the study area is home to the poorest people in the CMA, who have to travel long distances to reach areas of employment, and urban services. The availability of vacant land is the liberating factor for the study area in which a huge proportion is undeveloped. However, as previously stated, 73% of the land in Philippi East is privately owned.

Current and proposed legislation makes provision for rapid release of the public land for low-income housing development. Through this processes it is hoped to curb land invasion, which has some damaging effects on the development of low-income housing. This is aimed at providing serviced erven with no top structure, to beneficiaries. However, this is not complimenting the 20-year vision (MSDF) of Cape Town. The legislation attempts to silence many people by providing single erf ownership, and in the process contributing to unsustainable development. The challenge facing Philippi East, is to gain access to the privately owned land. The available literature indicates a relatively strong move towards public-private partnerships, and in particular, the regulation of development rights. This approach allows the public institutions to use development control and incentives as bargaining tools to gain the needed access to private land. This partnership also considers the private sector as not only making land available, but also assisting in developing the study area. Part of the negotiations is

that the released land should be developed to maximum capacity, i.e. densified to allow many more people access to urban resources or services.

The design of appropriate residential dwellings is thus crucial for the achievement of the goals of the MSDF. The other three mature metropolitan nodes identified by the MSDF are characterised by high-rise and high-density residential development. This type of design compliments the other existing land-uses, such the commercial sector. In addition, there is a demand to optimise space and thus a corresponding market, with affordable prices. Philippi East is surrounded by fairly low-rise developments. There are no office towers or residential blocks in the vicinity. Therefore, the appropriate housing development has to be low-rise with not more than four storeys. This makes it affordable to the target market, or residents. The research indicates that high densities can be obtained with low-rise higher-urban dwelling design. Although there are currently higher-density developments on the Cape Flats, these structures do not contribute towards a healthy living experience because they do not create any sense of privacy in the public space. The low-rise higher density developments should be modelled on the designs of the Bo-Kaap residential area in Cape Town. Although this area has developed over a long time and has a unique character that cannot be emulated; the design of the dwellings provides inspiration for the development of Philippi East. The ideal higher-density low-income design structures are semi-detached, single row, double storey semi-detached, double storey row, and courtyard-houses with a net residential density of approximately 100du/ha. The study area should be developed with a variety of dwelling designs to avoid a monotonous urban form.

The current size of freestanding dwellings ranges from approximately 10m<sup>2</sup> to 30m<sup>2</sup>, which alone can be built from the state subsidy. The research indicates that higher-density dwellings of a moderate size (approximately 30 – 40m<sup>2</sup>) alone cannot be built with allocated state subsidy. The 1996 census data reveal that the majority (nearly 40%) of the economically active population, based on their incomes, do not qualify for the full subsidy. Therefore, it is imperative to mobilise other forms of finance. The financial institutions regard the low-income market as a high-risk and, therefore have not provided housing finance. With new legislation, it is intended to force banks to service the low-income market with home loans.

This research has found that the private sector can also make a considerable contribution to developing the higher-density residential component of Philippi East. Securitisation can act as a vehicle to provide part of the solution to mobilise credit for the development of low-income higher-density housing in Philippi East. This approach requires a strong commitment from all spheres of government to gain private investor confidence. Through the process of securitisation, 70% of the projected income on bonds, for a particular period, is considered as an investment. The money generated from the sale of investment can be used to construct higher-density dwellings. This approach, which is gaining momentum in Australia and the USA, has not yet been applied in South Africa.

The approach to higher-density residential development requires a paradigm shift for housing administrators in the local government. This can only be achieved through the drafting of legislation promoting public-private partnerships with clear guidelines on land acquisition and credit mobilisation. Although various applicable legislation promotes sustainable development practices, the lack of synergy is preventing such practices.

### **7.3 Broad Recommendations for Policy Intervention**

National government needs to assess the various policies for development. The ministries need to analyse these policies and assess the potential impact they have on one another. As an example, the WCPDA and the DFA are calling for functional city development, whilst the housing subsidies do not compliment those requirements.

The identification of suitable land should be a proactive initiative driven by the National DoH. The DoH should empower the local governments to undertake the exercise and to ensure that an appropriate definition of strategic land applies, taking into account location differences. This can be achieved through the successful implementation of a GIS as a tool to identify and monitor the uptake of land. Furthermore, zoning schemes must be revised to allow for new building standards. In many cities, zoning schemes are outdated.

To assist local councils with a rapid response to develop higher-density low-income housing, pre-packaged plans of development should be drafted. This allows area

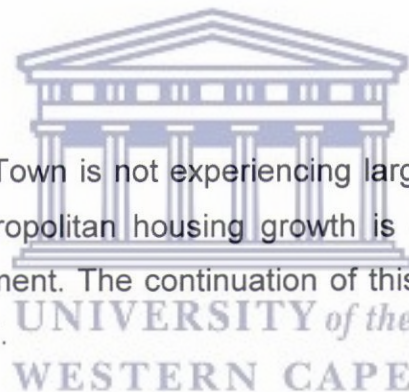
developers in Philippi East to select a packaged plan for housing development, and tailor it to suit local needs.

Pre-arranged financial agreements should be established for areas of metropolitan significance. National government should establish guidelines on mobilising credit as well as lay the foundation for the local councils. This would greatly assist in the development of higher-density low-income areas and also guide the development of the city.

Beneficiaries should also receive consumer education on the responsibility of having to pay a bond as well as own a home. Almost all of the qualifying beneficiaries have not engaged in this kind of agreement before, and therefore education plays a pivotal role in the success of such a project.

## 7.4 Conclusion

Contrary to popular belief, Cape Town is not experiencing large-scale urban sprawl or leapfrog development. Inner metropolitan housing growth is occurring, however it is informal, and unplanned development. The continuation of this kind of development is threatening the goals of the MSDF.



The Philippi East node has the ability to transform the Cape Flats into an area with economic opportunity. The potential vacant land is the key to its development. The current low-density, low-income urban sprawling development is not facilitating any private investment confidence in the area. The national DoH must empower local government in being more proactive to the housing crises. The reactive crisis mode of housing delivery is compromising sustainable development practices.

The sustainable development of residential land is an indicator for the government that it is serious about the vision for Cape Town. Failure to commit to Philippi East will result in the area being developed to serve smaller local interest, without taking advantage of the benefits of its metropolitan significance. The failure to commit to its development will have an adverse effect on the development of public transport. This kind of

development will “trap” the poor in the MSE, and prevent the rest of the metropolitan region from accessing the area.

## 7.5 Areas for Further Research

The following are areas recommended for further research:

1. Research is needed on a process whereby the co-ordination of various national and local government department's policies are evaluated. This would provide valuable insight into conflicting policies. This research has shown how the DoH's approach limits sustainable development initiatives for both national and local government.
2. A policy approach to pro-actively identify land for higher-density low-income residential development within areas of opportunity. This would assist with the sustainable use of land, to the benefit of the communities involved.
3. An important research area is the impact of HIV/AIDS on the delivery of low-income housing and the spatial economy.



## Bibliography

- Allen, W. A. (ed.) (1992). *A Global Strategy for housing in the Third Millennium*. The Royal Society, University Press, Cambridge *Alternative*
- African National Congress. (1994). *The Reconstruction and Development Programme*. Umanyano Publications, Johannesburg.
- Anon. (1996). The State should play a more proactive role in the delivery of affordable houses. *Housing South Africa*, November/December 1996.
- Anon. (1997a). Latest Developments in Sweden in the Field of Housing and Planning. *International Federation for Housing and Planning*. Third edition. The Hague. Sweden:79-80.
- Anon. (1997b). Latest Developments in the Field of Housing and Planning in the United Kingdom in 1996-97. *International Federation for Housing and Planning*. Third edition. The Hague:81-82.
- Arrigone, J. L. (1995). *Urban Densification Through Low-rise / High-density Housing*. Development Bank of Southern Africa. Centre for Policy, Information and Evaluation. Development Paper 66.
- Behrens, R. (1993). *High Density Development: A Review of Policy Measures, Restrictive Regulations and Residential Trends in Greater Cape Town*. Urban Problems Research Unit and Development Action Group.
- Behrens, R. and Watson, V. (1996). *Making Urban Places. Principles and Guidelines for Layout Planning*. University of Cape Town. UCT Press.
- Black, J. and Cameron, A. (1998). *Greening the Urban Habitat to Create a Sustainable Lifestyle*. Earthyear, 17, Cameron Designs, Cape Town.
- Breheny, M. & Archer, S. 1996. *Urban Densities, Local Policies and Sustainable Development* Geography Department, University of Reading United Kingdom.



[http://www.orl.arch.ethz.ch/FB\\_Oekonomie/congress/abstracts/d131.html](http://www.orl.arch.ethz.ch/FB_Oekonomie/congress/abstracts/d131.html)

Broers, A. (1997). *Cambridge Futures*. Cambridge.

[www.arct.cam.ac.uk/camdfut/Option2.htm](http://www.arct.cam.ac.uk/camdfut/Option2.htm),

Brown, E. (1995). *The Death of Land Reform: A Polemic*. Ed Brown's Resource Information. [Http://www.stile.lut.ac.uk/~gyedb/STILE/t0000211.html](http://www.stile.lut.ac.uk/~gyedb/STILE/t0000211.html).

Business Day. (2000a). Credit Gap Closes New Home Doors. May 4.

Business Day. (2000b). Poorer People 'Must Get Housing'. October 10.

Business Day. (2000c). Government Housing 'Creates More Problems Than It Addresses'. January 20.

Callinicos, A. (1989). *Marxist Theory*. Oxford University Press (USA).

Cape Metropolitan Council. (1994). *Building Activities in the Cape Metropolitan Region 1991 - 1993*. Engineering Services, Regional Planning.

Cape Metropolitan Council & Provincial Administration of the Western Cape. (1995) *Structure Plan Proposals for Philippi East*. Engineering, Services Regional Planning.

Cape Metropolitan Council. (1996). *Metropolitan Spatial Development Framework*, Technical Report. Engineering Services, Regional Planning.

Cape Metropolitan Council. (1997a). *Metro South East Structure Plan: Volume 1*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1997b). *Building Activities in the Cape Metropolitan Region 1996*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1997c). *Levels of Living in the Cape Metropolitan Area*.

Development Information Centre, Department of Information Services.  
Directorate: Corporate Services.

Cape Metropolitan Council. (1998a). *MSDF Handbook; Spatial Strategies and Guidelines to Facilitate Implementation. Discussion Document*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1998b). *Metropolitan Housing Database*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1998c). *Integrated Development Planning in the Cape Metropolitan Area*. Corporate Directorate. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1998d). *Moving Ahead. Cape Metropolitan Transport Plan. Part 1: Contextual Framework. Discussion Document*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1998e). *Population Figures for the Cape Metropolitan Region 1991 - 1997*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1999a). *Philippi East/Airport Area Node Evaluation: Phase 1*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1999b). *Townships and Informal Settlements in the Cape Metropolitan Region*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (1999c). *Cape Metro Housing Info*. October, Issue 3. Housing Department, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (2000a). *Monitoring of Urban Growth in the Cape Metropolitan Area; 1988, 1993 & 1996*. Spatial Planning, Planning Environment

& Housing Directorate.

Cape Metropolitan Council. (2000b). *An Inventory of Vacant Land in the Cape Metropolitan Area: 1996 –2001*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (2000c). *Building Statistic Trends in the Cape Metropolitan Area*. Spatial Planning, Planning Environment & Housing Directorate.

Cape Metropolitan Council. (2001). *MSDF Handbook. Guidelines for the local interpretation and application of the MSDF principles and spatial concepts*. Spatial Planning, Planning Environment & Housing Directorate.

Carmona, M. (1997). *The Need for Innovation*. Urban Design Quarterly. [http://udi.hera.ac.uk/ej/udq/62/topic\\_2.html](http://udi.hera.ac.uk/ej/udq/62/topic_2.html)

Carter, H. (1989). *The Study of Urban Geography*. Publishers Hodder and Soughton limited, London.

Cavanagh, C. (1998). Lack of decent homes a highly explosive issue. *Cape Times*, 25 June: 13.

Centre for Scientific and Industrial Research. (1994). *Proposed Low-Income Housing Developments in Greater Cape Town 1994-1997*. Roads and Transport Technology.

Chasek, P. & Jordon, J. & Schimdt, C. (1995). *A year end update on the United Nations Conference on Human Settlements (HABITAT II)*. The International Institute for Sustainable Development. <http://www.iisd.ca/linkages/downloads/asc/enb1114e.txt>

Chittenden Nicks Partnership. (1998). *An Integrated Approach to Planning and Design*. Unpublished.

Cities Alliance. (2000). *Cities Alliance, Overview.*

<http://www.citiesalliance.org/citiesalliance/citiesalliancehomepage.nsf/?Open>

City of Cape Town. (1998). *Wetton-Lansdowne-Philippi Corridor Programme: Integrated Implementation Plan 1999 - 2004.* Planning and Development Directorate, Corridor Unit.

City of Cape Town. (1999). *Municipal Spatial Development Framework.* Planning and Development Directorate.

Clarion Associates. (1995). *Colorado Growth Management Toolbox.*  
[Http://governor.state.co.us/smartgrowth/whalltts.htm](http://governor.state.co.us/smartgrowth/whalltts.htm)

Dale, P. F. (1991). Land Information Systems. Maguire, D. J., Goodchild, M. F. & Rhind D. W. (eds), *Geographical Information Systems: Principles and Applications.* Longman, London. Pp85-99.

Daniels, D. (1996), *Urban Densification.* Local Government Digest. July 1996. pp32-34.

Davis, M. (1989). Urban Renaissance and the Spirit of Postmodernism. Kaplan A (ed). *Postmodernism and its Discontents, Theories and Practices.* Bookcraft (Bath) Ltd. UK. Pp79-87

Dentinho, T.P. & Meneses, J.G.A. (1996). *Sustainable Development of Urban Areas: Lessons from the Smallest City Tomaz.*  
[http://www.orl.arch.ethz.ch/FB\\_Oekonomie/congress/abstracts/d144.html](http://www.orl.arch.ethz.ch/FB_Oekonomie/congress/abstracts/d144.html)

Development Action Group. (1993). *Well-Located Affordable Housing: A Feasible Approach.*

Development Action Group (1994). *Housing Options for the Western Cape.*

Dewar, D. & Uytendogaardt, R. (1977). *Housing, A Comparative Evaluation of*

*Urbanism in Cape Town*. Urban Problems Research Unit. University of Cape Town.

Dewar, D. (ed), 1993. *The De Loor Task Group on Housing Policy for South Africa: Some Perspectives*. The Urbanity and Housing Network. The Faculty of Fine Art and Architecture, University of Cape Town.

Divas, N. & Rakodi. C. (1993). *Managing Fast Growing Cities. A New Approach to Urban Planning and Management in the Developing World*. Longman Scientific & Technical, UK.

Du Plooy, D. W. (1993), *A Case for High-Density Low Income Housing: Demonstration Projects*. 21<sup>st</sup> International Association for Housing Science, World Housing Congress, Cape Town.

Duncan, R. (1999). *Density Through Design*. Urban Design Quarterly. Issue71. <http://rudi.herts.ac.uk:80/ej/edq/71/intl.html>

Electronic Mail & Guardian. (1998). *Whatever Happened to the Dream of Low-Cost Housing?* 24 February. [Http://www.mg.co.za/mg/news/98feb2/24feb-housing.html](http://www.mg.co.za/mg/news/98feb2/24feb-housing.html)

Erickson, J. (1999). *Singapore Lessons? Perhaps in housing and education*. Hong Kong: AsiaWeek. <http://www.pathfinder.com/asiaweek/97/1017/nat5.html>

Eveleth, A. (1997). Land Restitution lags behind. *Mail and Guardian*. 12 December. [Http://web.sn.apc.org/wmail/issues/971212/news17.html](http://web.sn.apc.org/wmail/issues/971212/news17.html)

Fethard Council. (date unknown) *Development Plan for Fethard CO Tipperary , 1999 – 2004*. <http://www.fethard.com/townplans/plantext/cont.htm>

Fitzgerald, P. & McLennan, A. & Munslow, B. (eds.). (1997), *Managing Sustainable Development in South Africa*. Oxford University Press,

- Gelderbloem, D. and Kok, P. (1994). *Urbanisation South Africa's Challenge: Volume 1: Dynamics*. Human Sciences Research Council Publishers, Pretoria.
- Gelderbloem, D. and Kok, P. (1994). *Urbanisation South Africa's Challenge: Volume 2: Planning*. Human Sciences Research Council Publishers, Pretoria.
- Giddens, A. (1997). *Sociology*. Polity Press, Cambridge, UK.
- Gosling, M. (1998). Massive Housing Plan. R2bn offer that could split the city. Cape Times, 1 October:1
- Gilbert, A. and Gugler, J. (1992). *Cities, Poverty and Development Urbanisation in the Third World*, Second Edition. Oxford University Press, New York, USA.
- Halderman, B. (1914). *The Street Layout. (Biographical note)*. The Annals 51 (January 1914): 182-191. (ed) Reys, J. W. (date unknown). Halderman, the Street Layout. www..cornell.edu
- Harloe, M. (1995). *The People's Home? Social Rented Housing In Europe and America*. Blackwell Publication. Massachusetts USA.
- Hart, T. (1993). Geography in Socio-Economic Transition: Challenges and Opportunities for Professional and Scientific Societies in South Africa. South African Geographical Journal, 73(1):1-5.
- Harvey, D. (1992). The condition of Postmodernity. Jenks. C (ed) *The Postmodern Reader*.
- Healy, R.G. (1991). Database Management Systems. Maguire, Goodchild and Rhinf (eds.), *Geographical Information Systems: Principals and Applications*. London: Longman: 251-260.
- Heymans, C & Totemeyer, G. (eds) (1998). *Government by the People? The Politics of Local Government in South Africa*, Juta, Cape Town.

Hoffa, P. (1999). *Residential Densification: An investigation into its Rationale and the Issues and Lessons that can be drawn from the International Literature*. Specialisation theory paper.

Jacobz, E. H. (1988) *Na Ingebruiksnemings-Evalueering van die Selfbehuisingsproject in Grassy Park*. Unpublished M.A. Thesis. University of Stellenbosch.

Johnson, R. S. (1998). *Banking on Urban America*. Fortune, March 2.  
<http://www.pathfinder.com/@@19C9QYA4jg4zlGb/fortune/1998/980302/ban.html>

Jones, T.L. (1998). *A Case Study for Strategic Housing Renewal?* Urban Design Quarterly. Issue 68. [http://rudi.hertsac.uk/ej/udq/68/view\\_1.html](http://rudi.hertsac.uk/ej/udq/68/view_1.html) 3

Karon, T. (2000). *Africa Rising*. Time Magazine.  
<http://www.time.com/time/search/article/0,8599,42407,00.html>

Kithcing, G. (1988). *Karl Marx and the Philosophy of Praxis*. Routledge, London.

Kothari, V. (2000). *Securitisation – A Primer*. <http://www.vinodkothari.com/seccont.htm>

Langdon, P. (1994). *New Development, Traditional Patters*.  
<http://www.plannersweb.com/newurb.html>

Lemon, A. (ed.). (1995). *The Geography of Change in South Africa*. John Wiley and Sons Ltd. West Sussex, England.

Le Roux, G. (1996). *The Subsidized Housing Policy in South Africa: Has the vision Changed?* Unpublished paper.

Lyotard, J-F. (1992). Answering the Question: What is Postmodernism? Jenks C (ed.). *The Postmodern Reader*. Bookcraft (Bath): 139-151

Maguire, D. J. and Dangermond, J. (1991). The Functionality of GIS. Maguire, D. J.,

Goodchild, M. F., Rhind D. W. (eds), *Geographical Information Systems: Principles and Applications*. Longman, London. pp. 319 – 335.

Mail and Guardian. (1997). *Peasant victory in Mozambique*. October 1. [Http://web.sn.apc.org/wmail/issues/971001/NEWS14.html](http://web.sn.apc.org/wmail/issues/971001/NEWS14.html)

Markvar, J. and Stejskal, J. (1997). *Latest Developments in the Field of Housing and Planning in the Czech Republic*. International Federation for Housing and Planning. Third edition. The Hague: 11-20.

Mathey, K. (ed.). 1990. *Housing Policies in the Socialist Third World*. Mansell Publishing Ltd. New York, USA.

Mazur, R. & Qangule, V. (1995). *Household Dynamics and Mobility Patterns of African in Cape Town: Appropriate Responses*. Western Cape Community Based Housing Trust. Cape Town.

McMahon, E. (1997). *Stopping Sprawl by Growing Smaller*. [www.planersweb.com](http://www.planersweb.com)

Miller, M. (1997). Managing Information Technology. Fitzgerald, P & McLennan, A & Munslow, B. (eds.), *Managing Sustainable development in South Africa*. Cape Town: Oxford University Press: 434-444.

Montag, W. (1989). *What is the Stake in the Debate on Postmodernism?* In *Postmodernism and its Discontents, Theories and Practices*, Kaplan A (ed). Bookcraft (Bath) Ltd. UK. Pp. 89 – 103.

Muller, J-C. (1991). *Generalization of Spatial Databases*. Maguire, D. J., Goodchild, M. F., Rhind D. W. (eds), *Geographical Information Systems: Principles and Applications*. Longman, London 457-475.

O'Toole, R. (1999). *"Livable Communities" May Be Anything But...* <http://heartland.org/environment/aug99/sprawl.html>



Oostenhuizen, J. S. (1990). *Setting the Scene and Population Dynamics*. Institute for Housing of Southern Africa, Randburg.

Openshaw, S. (1991). *Developing Appropriate Spatial Analysis Methods for GIS. Geographical Information Systems: Principles and Applications*. Maguire, Goodchild and Rhind (eds). Longman, London. Pp 389 – 402.

Østergård, N. (1997). *Latest Developments in the Field Of Housing and Planning in Denmark*. International Federation for Housing and Planning. Third edition. The Hague:21-26.

Otto, A. (1997). Land reform and Taxation in Estonia. *Land Lines*, July, Volume 9, Number 4.

Padgett, T. (1998). *Guerrilla Capitalism*. Time Magazine, June 22, Volume 151, Number 25.  
[Http://pathfinder.com/time/magazine/1998/int/980622/latin\\_america.guerrilla\\_16.html](http://pathfinder.com/time/magazine/1998/int/980622/latin_america.guerrilla_16.html)

Parrott, R. P. and Stutz, F. P. (1991). *Urban GIS Applications. Geographical Information Systems: Principles and Applications*. Maguire, Goodchild and Rhind (eds). Longman, London. Pp247 – 260.

Provincial Administration of the Western Cape. (date unknown), *Western Cape Housing Strategy*. Department of Housing.

Provincial Administration of the Western Cape. (1995). *Land for the accommodation for low-income people of the Cape Metropolitan Area*. Prepared by: Transportek and Foresttek, CSIR..

Provincial Administration of the Western Cape. (1997). *Land for the accommodation for low-income people of the Cape Metropolitan Area. Draft*. Prepared by: Transportek and Foresttek, CSIR.

Provincial Administration of the Western Cape. (1999). *Western Cape and Development Act. No 7. Western Cape.*

Philippine Council for Sustainable Development (PCSD). (1997). *The Philippines and Agenda 21 (Excerpts from the Assessment Report)*. PCSD Secretariat, Philippines. <http://undp.org:81/missions/philippine/webdoc5.htm>.

Piavanen, J. (1998). *Helsinki – Espoo: The Impact of Urban Compaction on Urban Inhabitants*. The Ringkobing Papers. <http://www.arbeer.demon.co.uk/finland.htm>

Raath, J. (1997). *In Zimbabwe, The Dream of Land has Turned into Poverty and Confusion*. Mail and Guardian November 28.  
<http://web.sn.apc.org/wmail/issues/971128/NEWS14.html>

Randall, E. (1994). *Bill Cuts the Wait for Land*. Mail and Gaurdian. August 26.  
<http://web.sn.apc.org/wmail/issues/940826/wm940826-11.html>

Rogerson, C. and McCarthy, J. (eds). (1992). *Geography in a Changing South Africa; Progress and Prospects*. University Oxford Press.

Rogerson, C. M. (1997). *Managing Urban Growth; The International Experience. A Resource Document*. Development Strategy and Policy Unit of the Urban Foundation. Urban Foundation, Johannesburg.

Rojas, R. (2000). *World Resources 1996 –1997*.  
[http://www.rrojasdatabank.org/up\\_txt5.html](http://www.rrojasdatabank.org/up_txt5.html)

RSA. (1991). *Establishment of Less Formal Townships Act*. No.113. Department of Constitutional Affairs.

RSA. (1993). *Local Government Transition Act*. Department of Constitutional Affairs.

RSA. (1994). *Land Act*. Department of Land Affairs.

- RSA. (1995). *Development Facilitation Act*. No. 67. Department of Local Government.  
[Http://www.polity.org.za/govdocs/legislation/1995/act95-067.html](http://www.polity.org.za/govdocs/legislation/1995/act95-067.html)
- RSA. (1996a). *Housing Densification*. The Department of Housing. 30 January 1996.
- RSA. (1996b). *Housing Densification: Key Issues Regarding Housing Densification as part of the Government of National Unity's Urban Development Strategy*. Department of Housing.
- RSA. (1997a). *Housing Act*. No. 107. Department of Housing
- RSA. (1997b). *White Paper on Housing*. Department of housing.
- RSA. (1997c). *White Paper on South African Land Policy*. Department of Land Affairs.  
[Http://polity.org.za/govdocs/white\\_papers/landwp.htm](http://polity.org.za/govdocs/white_papers/landwp.htm)
- RSA. (2000a). *Annual Report*. Department of Housing.  
[http://www.housing.gov.za/Pages/Annualreport/full\\_report.html](http://www.housing.gov.za/Pages/Annualreport/full_report.html). Pretoria.
- RSA . (2000b). *Municipal Structures Act*. No. 33. Department of Constitutional Affairs.
- RSA . (2000c). *Municipal Systems Act*. No. 32. Department of Constitutional Affairs.
- RSA. (2000d). *Draft Home Loan and Mortgage Disclosure Bill*. Department of Housing.
- Scott, A. J. (1988). *From the Division of Labour to Urban Form*. University of California Press Ltd. Oxford England.
- Smith, D. (1995). Geography, Social Justice and the New South Africa. *South African Geographical Journal*,77 (3): 1-5.
- Sondheim, A. (1997). Characteristics of Post-Modernism. [sondheim@panix.com](mailto:sondheim@panix.com)
- SOTTA. (2000). *Securitisation International Ltd*. <http://www.sotta.co.za/index.html>

South African Banking Council. (2000). *SA Home Loans issues R1.25bn bond*.  
[http://www.banking.org.za/Public/more\\_News.cfm?id=1062](http://www.banking.org.za/Public/more_News.cfm?id=1062)

Sunday Times. (2000a). *Microlenders on Charm Offensive*. July 10.  
<http://www.suntimes.co.za/2000/07/09/business/news/news01.htm>

Sunday Times. (2000b). *Microlending council beats the odds*. October 2000.  
<http://www.suntimes.co.za/2000/10/22/business/news/news03.htm>

Swilling, M, & Humphries, R. & Shabane, K. (eds.). (1991). *Apartheid City in Transition*.  
Oxford University Press. Oxford, United Kingdom.

Tan, D. (1994). *Public Housing in Singapore. Site Planning. Student Work*. The  
University of New South Wales, Australia.  
<http://www.fbe.unsw.edu.au/research/student/SgPubHouse/site.htm>

Thrift, N. (1996). *Apocalypse Soon, or Why Human Geography is Worth Doing?* in *The  
Students Companion to Geography* Rogers A et al. Blackwell Publishers Ltd.  
Oxford UK.:18-35.

Tyler Miller, G. (1992). *Living in the Environment. An Introduction to Environmental  
Science*. Seventh Edition. California: Wordsworth.

Union Nationale Des Fédération S D'organismes Hlm. (1997). *Latest Developments in  
France*. Internationals Federation for Housing and Planning. The Hague:29-31.

United Nations. (1996). *The Human Settlements Conditions of the World's Urban Poor*.  
United Nations Centre for Human Settlements (Habitat). Nairobi, Kenya.

Urban Foundation and The University of the Western Cape. (1990). *Cape Town Local  
Government and Housing Workshop*. The Urban Foundation's Urbanisation Unit  
and the Community Law Centre, University of the Western Cape.

Urban Foundation Research. (1994). *Urban Land Invasion: the International Experience; An Executive Summary*. Development Strategy and Policy Unit of the Urban Foundation. Urban Foundation, Johannesburg.

United States of Agency for International Development (USAID) and Planning and Development Collaborative International (PADCO). (1993). *Housing in Montego Bay: A Case Study Analysis Using GIS, Aerial Photographs and Housing Typology*. PADCO, Inc. Washington, DC, USA

Van Der Merwe, I.J. (1996). From Apartheid to Integration: A role for the Society of South African Geographers. *South African Geographical Journal*, 78(1): 55-58.

Van Zyl, B. (1990). *Grond Vir Bewoning Deur Lae-Inkomste Groepe in die Kaapse Metropolitaanse Gebied*. Department of Planning and Provincial Affairs.

Wagner, J. (1998). *Increasing Community Dialogue: Public Participation in the Metro South East*. Massachusetts Institute of Technology. Cambridge, USA.

Wiese, I. (1997). *Latest Developments in the Field of Housing and Planning in Germany*. International Federation for Housing and Planning. Third edition. The Hague:45-49.

Wolfson, T. (1991). *Access to Urban Land in Apartheid City in Transition*. Oxford University Press. Oxford, United Kingdom:231-257.