

**THE PROSPECT OF PROVIDING LOW-INCOME
MEDIUM DENSITY HOUSING IN DEVELOPING
COUNTRIES: Problems and opportunities with special
reference to Cape Town, South Africa**

University of Cape Town

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DEDICATION

I dedicate this work to the **Almighty God** through **Our Lord Jesus Christ** for making my coming to UCT a reality. Thank you very much even though I am so undeserving to receive this wonderful priceless honour from you.

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ABSTRACT

The housing problem in the urban centres of developing countries is not new. It was first acknowledged as a serious problem in the 1950's, when governments of most developing countries realised the scale and magnitude of the housing shortage. Although these governments have over the years developed various housing policies in their attempts to alleviate the situation, the problem persists. The ineffectiveness of these policies can be attributed to the numerous problems, which occurred during their successive implementation. These problems include *inter alia*, the lack of political will, persistent financial constraints with regards to budgets for housing, inappropriate housing policies, a shortage of skilled staff to implement the policies, and the lack of construction expertise in the field of housing.

The aforementioned problems have resulted in governments of developing countries in general, and South Africa in particular, merely facilitating the delivery of low-income housing rather than engaging directly in the provisioning process, in which market and community involvement has been maximised.¹ This has led to subsequent housing policies from both the public and the private sector focusing more on the provision of large low-density low-income residential areas with minimum facilities and amenities, while less attention is given to other vital issues such as achieving compact and sustainable urban development. These policies have also encouraged the status quo vis-à-vis the type of dwelling being constructed in such areas to remain the same, namely the use of single dwellings on single plots. This in turn has led to "urban sprawl" which characterises the cities of most developing countries. The consequences of such urban sprawl include problems such as:

- exorbitant costs in the provision of social and infrastructural services due to speculative, uncoordinated and discontinuous growth;
- an enormous loss of valuable agricultural land and natural amenities; and,
- low densities which are below the minimum market threshold required by social and commercial enterprises, particularly small business.²

¹ Adelaja, A.(2000) Urban Futures 2000 Conference at the Witwatersrand University, Johannesburg. 10th-14th July, 2000.

² Watson, B (1992). Spread city! Evaluation of Cost of Urban Growth in Metropolitan Cape Town.

A typical example of such urban sprawl is Delft, a recently developed low-income suburb on the periphery of the Cape Town Metropolitan area. Like many similar cases, it also manifests the aforementioned problems that result from urban sprawl. As will be explained in this current thesis, such sprawling, low-density suburban developments are in fact facilitated by a range of factors, particularly in the areas of policy, institutional framework and mindsets within the public and private sectors, to mention but a few.

However, as the cities of developing countries (including South African cities) continue to witness exponential population growth and the concomitant dramatic increase in terms of the housing deficit, the efforts of city planners should focus on developing creative ways of absorbing this growth. In this context, if the magnitude and scale of urban sprawl and its concomitant problems are to be controlled, there is a clear need to review and reconsider the currently predominant use of low-density sprawling development in providing housing for low-income groups. It is thus proposed in this thesis that low-income medium-density developments, located appropriately in inner city areas to kick-start settlements that are integrated, compact and promote mixed land uses, as well as aspiring towards sustainable urban development, are needed in the cities of developing countries.

A typical example of such a housing development is Springfield Terrace Woodstock, Cape Town. This pilot project, demonstrating how the provision of low-income medium-density housing (in the form of three- to four-storey walk-up blocks of flats) can be provided in central Cape Town and how these benefit from the existing bulk infrastructure. It further demonstrates how this housing type could be located and utilised to encourage a shift away from low-density to medium-density housing, particularly with regard to low-income earners.

In South African cities, the provision of this housing type is currently hindered by various factors, and for this reason it is very unpopular. As a result of this, the quantity of this housing type in South African cities in general and in Cape Town specifically, is at the moment insufficient to facilitate better urban development. In view of this, this

dissertation has chosen the Delft and Springfield Terrace housing projects as case studies in order to formulate the prospects for the provision of low-income medium-density housing as a tool to facilitate the new form of urban development. An examination of Springfield Terrace housing was thus conducted with the aim, firstly, of identifying the factors that hindered this form of housing. Secondly, the study tried to identify the factors that almost exclusively facilitated the delivery of low-income low-density housing developments (for example, in Delft). Thirdly, the study tried to throw more light on the issues raised in the two case studies by conducting an investigation of the legislative framework that regulate the important components of spatial planning (such as housing and land). Finally, two other examples of recently completed low-income medium-density housing schemes (namely those of Germiston, Gauteng and Red Location, Port Elizabeth) were briefly employed to determine the prospects for this type of housing development and its associated manner of city growth, with specific reference to South African cities. It is through the examination of these case studies that a number of issues are highlighted which could improve the prospects for the provision of medium-density low-income housing, not only in South Africa, but in other developing countries across the world as well.

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CHAPTER ONE

1.0 ORIENTATION AND DEFINITION OF THE PROBLEM

1.1 Introduction

The problem of housing in most developing countries of the world first emerged between the late 1940s and 1950s. It started as a result of the rapid population growth in urban centres, especially after these countries became independent. However, it took the governments of most developing countries a long period of time to accept the need for more housing, as well as the urgency of this issue¹. The housing problem has, since then, continued to be a serious concern, as housing needs in the urban centres of most developing countries have increased exponentially.

Generally, limited finance stands out as the major obstacle against the provision of formal housing in developing countries. In fact, there would not be a housing problem / shortage if these countries had sufficient national income, distributed either through the market system or by government policy in order to aid individuals to either purchase or rent housing². However, the issue of limited resources has compelled most developing countries to adopt self-help housing strategies as the principal solution to this problem.³ Examples of such self-help housing strategies include site and service solutions and core housing. Such strategies view housing as a process and have several advantages, one of which is devolution in decision-making. The strategy of self-help housing permits incremental growth and provides individual users with the opportunity to have a say or to be involved in the provision of housing.

¹ Koenigsberger, O. "Third World Housing Policy since 1950" in: *Habitat International*, 1986, vol. 10, no. 3, p. 28.

² "X. Finance For Housing Community Facilities in Developing Countries". United Nations, New York, 1968, pp. 9-15.

³ Koenigsberger, O. "Third World Housing Policy since 1950" in: *Habitat International*, 1986, vol. 10, no. 3, p. 30.

This strategy has been successful in Colombia, South America where starter houses have been consolidated and densified⁴. However, the situation in most African cities is generally quite different, particularly in South African cities, where such housing has more often than not resulted in urban sprawl.⁵ The factors responsible for this include *inter alia* the following:

- the prevailing planning ideologies: Specifically, the planning concept of one dwelling unit per plot has continued to dominate the peripheral expansion of most cities in developing countries,⁶ and,
- the idea that engineering technology can be used to assist the functionality of the aforementioned layout planning concept. This includes designing layouts on the notion that every household owns a car for effective mobility. Such developments require the building of more roads to connect newer expanding portions of the cities with older city areas. In addition, also requires the provision of larger infrastructure.

1.2 Statement of the Problem

The rapid rate of urban growth currently experienced in South Africa in general, and in Cape Town in particular, requires the provision of low-income housing to cater for a huge housing deficit. There are two models of housing systems, either of which could be adopted to reduce this deficit in Cape Town. The first model refers to the single dwelling unit, for a family, on a plot of land; this type of layout will necessarily extend over large areas of land, leading to low-density housing. The second housing model is what this research refers to as 'medium-density housing'. Although this type of housing, too, spreads over large areas of land, it also concentrates dwelling units vertically hence resulting in higher densities.

⁴ Arigone, J. "Low-Cost Housing in Latin American Model for South Africa." in *Unisa, Latin American Report*, March 1987, vol. 13,

⁵ Cape Town Metropolitan Council (1996) "Metropolitan Spatial Development Framework." See also. Taylor, Robert W. (ed.) *Urban Development in Nigeria*, 1993, p.35.

⁶ Koenigsberger, O. (1986) "Third World Housing Policy since 1950" in: *Habitat International*, 1986, vol.10. no.3, pp. 30-31.

The problematic application of the former in the form of self-help housing schemes has often resulted in wasteful and unsustainable settlement layouts. The absence of consolidation and densification in the expansion of South African cities in general, and Cape Town in particular, is in part due to the legacy of migrant labour, influx control and former homeland development, resulting in a continuing circular migration patterns within South Africa⁷. In addition, current policy and user preferences, as well as past experiences with medium-density housing (for example low-income flats), have all influenced opinions. This consolidated the use of “the single dwelling unit on a plot of land ” as the predominant model of housing within the low-income group in Cape Town specifically.

The implications of the above are, firstly, that the costs of providing the infrastructure and infrastructural services have become exorbitant. This has resulted in a situation where communities have become poorly serviced. Secondly, the public transport system within such developments (such as Delft⁸ and parts of Oceanview) tends to be inefficient. Thirdly, the population threshold living in such housing areas is too low to sustain urban public life and the economic growth of small businesses. In view of these problems, **this research intends to explore the prospects of providing low-income medium-density housing in developing countries (with special reference to Cape Town, South Africa), the provision of which can be used as a measure to limit urban sprawl and its associated problems.**

In declaring the need for low-income medium-density housing to be an urgent necessity for urban development in South African cities in general and Cape Town in particular, this research is not advocating that this is the only solution to low-income housing crises. Low-income low-density housing areas could obviously continue to exist. Instead, what is being contested is that low-income, low-density sprawl should be the only form of (sub-) urbanisation. Ideally there should be a mix of housing densities, with a greater

⁷ Spiegel, et al. “Article on National Housing Policy and African Household Dynamics” in: *Urban Forum*, vol. 7, 1996, pp.3, 4 and 15.

⁸ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p. 13.

emphasis towards medium-density in order to create sustainable urban environments for the urban poor.

1.3 The Need for Research

In a world of diminishing resources where the majority of people are increasingly living in cities, investigations into alternative higher density housing models are very important. There is little doubt that cities across the world have to become more sustainable. In developing world as well as in the South African context, this need has become critical.

The city of Cape Town is predominantly characterised by low-density development, across all income groups.⁹ Very often low-income housing areas are segregated on the periphery of the city with grossly inadequate (and at times an entire lack of) community facilities. This is a sign that the government (which is the sole provider of housing within this income group) is not financially disposed to effectively provide housing and those products that complement it. Furthermore, it raises doubt as to the sustainability of this growth. For example, local governments deem it necessary to provide a huge road infrastructure that is very expensive to maintain, even though they are under-utilised. On the other hand, residents in low-income areas such as Delft are subjected to unfavourable living conditions. They have to depend daily on a public transport system that is both expensive and inefficient in order to reach places of work, shopping and recreation.

The need for this research is borne out of the quest to draw the attention of the relevant authorities to the problem of uneconomic and unsustainable development that already exists in Cape Town¹⁰. The continuous application of this form of suburban development in the city will only increase the scale and magnitude of these problems. There is rather a need to make economic use of the vacant land through consolidated development that is

⁹ Dewar, D. et al (1990). *The Structure and Form of Metropolitan Cape Town: Its Origins, Influences and Performance*. Urban Problem Research Unit, pp. 126-127. Khan, D. M. (1997) *Case Study: Cape Town, Planning and Design in the 1990's*, pp. 17-18. Le Sueur, J. MDF team. (1992) *Towards a Draft Spatial Development Framework for Metropolitan Cape Town. A Town Planning Branch Internal Workshop*. pp. 15-19.

¹⁰ Khan, D. M. (1997) *Case Study Cape Town, Planning and Design in the 1990's*, pp. 9-10

urban and sustainable. Furthermore, this research intends to examine whether it will be possible to provide low-income medium-density housing in Cape Town for the purpose of promoting sustainable urban environments that are compact and integrated. This would be determined by the degree to which the changes that would facilitate such new urban development are achievable.

1.4 The Aims, Objectives and Hypotheses of the Research

In line with the aforementioned need for this research, it is important that the aims, objectives and hypothesis are clearly stated to give an outline of how the necessary research would in fact need to be carried out.

1.4.1 The Aims

The aim of the research is to explore the prospects of providing low-income medium-density housing in South African cities as a tool to bring about urban developments that are, compact and integrated in addition to promoting mixed land uses and sustainable development.

1.4.2 The Objectives

In order to achieve this aim the following objectives had to be established:

- to acquire an in-depth understanding of the housing policies, both internationally and locally (in developing countries generally and in South Africa specifically). It is hoped that this understanding will assist in developing a perception of the factors responsible for the current low-income low-density sprawl in Cape Town;
- to determine the need for alternative urban development. This will be achieved by reviewing the general problems associated with prototype single dwelling planned communities by comparing it with higher-density planned communities on the bases

of cost analyses. Through the above, the advantages of higher-density development will be established;

- to establish the factors that could facilitate the provision of low-income low-density sprawl, using the Delft housing project as a case study. Furthermore, those obstacles that militate against the provision of low-income medium-density housing and its use to achieve a new form of urban development will be determined, by using Springfield Terrace as a case study and the Missionvale housing project as an example. Finally, the legislative framework of important components of spatial planning (such as housing and land) will be investigated to throw more light on the issues raised in both case studies and,
- to determine those changes that are necessary to facilitate the provision of low-income medium density housing and its use to promote a new form of urban development in South African cities in general and in Cape Town specifically.

1.4.2 The Hypotheses

In view of the aforementioned objectives, a number of hypotheses can be formulated to help the research in investigating relevant data and in establishing a tentative goal against which to project / interpret such data. The following represents the hypotheses, which were formulated in this regard:

- There are policies in some departments within the public sector which represent the critical components of housing and planning that hinder the provision of low-income medium-density housing in Cape Town;
- there are certain institutional frameworks and mindsets which exist within the conscience of public and private sectors that do not favour the provision of low-income medium-density housing types, and,
- there is no established tradition of a functional partnership between public and private sectors. The existence of a functional relationship between the aforementioned parties (as would be discussed in this thesis) is an important and necessary measure

employed by most developed countries to facilitate the provision of low-income housing.

1.5 Definition of Terms

This section defines specific terms that are used in the research, namely:

Densification

This is a process whereby densities are increased in a planned and meaningful way within the existing boundaries of a specific area¹⁰. This could occur, for instance, on vacant land in existing urban areas.

Informal Housing

This refers to residential developments where no building standards have been applied¹¹ and where people generally build their own shelters, using discarded building materials.

Inward Densification

This refers to the process of increasing densities within areas inside the urban edge¹².

Sustainable Development

This is the degree to which a project promotes and upholds the physical and social development and vitality of the community, with special reference to the nature and scope of amenities, facilities and opportunities provided by the project, both directly and indirectly. Particular attention will be paid to the integration with housing of uses such as education, health, social welfare, employment, shopping, sports and recreation¹³ where these development could be actively directed to serve the urban poor.

¹¹ Cape Metropolitan Council. (1995), Metro Southeast Plan: Goal Objective Policies and Strategies. CMC Engineering Services Regional Planning. p. v.

¹² Cape Metropolitan Council. (1995), Metro Southeast Plan: Goal Objective Policies and Strategies. CMC Engineering Services Regional Planning. p. viii.

¹³ White Paper on Housing Subsidy Scheme, Government Gazette, 1995, p. Page 16.

Urban Sprawl

This refers to low-density (single dwelling units each on their own plot) high-, middle- or low-income developments on the periphery of existing urban areas¹⁴.

Low-income Medium-density Housing

Before the term “low-income medium-density housing”, which is of particular importance in the current thesis, can be defined, the components of the term must be defined, for the sake of clarity / for ease of reference.

The measure of density has two major parts: The first part refers to the density of residential dwellings. More specifically, the term "gross residential density" refers to the number of dwellings units divided by the total site area, whereas "nett residential density" refers to the number of dwelling units divided by that part of the site taken up by residential use only. The second part refers to the density of population, which is expressed by the number of people divided by the site area¹⁵.

The term “medium-density housing” is used in the research to refer to a development that increases the gross density of an urban area. For all practical intents and purposes, the term is used with the understanding, that land uses other than residential also require intensification. Basically, an increase in nett density within an area invariably means an increase in population density, thus requiring a commensurate increase in the provision of community facilities, amenities and infrastructure. The degree to which densities can be increased will be dependent on several factors, one of which is the availability of vacant sites in Cape Town.

Medium-density housing can be achieved with many types of buildings, from single storey to multi-storey housing. For the purpose of this research medium-density housing has been considered in terms of multi-storey housing which could take various forms. It

¹⁴ Cape Metropolitan Council. (1995) Metro Southeast Plan: Goal Objective Policies and Strategies. CMC Engineering Services Regional Planning .SN p. viii.

¹⁵ Behrens, R. (1993) Higher Density Development: A Review of Policy Measures, Restrictive Regulations and Residential Trends in Greater Cape Town. Urban Problem Research Unit. The University of Cape Town, p 3.

could include two-storey duplex units, a combination of both duplex and simplex units and a variety of apartment types. It is understood that a mix of such housing types could allow for a general nett density range of between 45 to 90 dwelling units per hectare. Such form of housing could permit a greater resourceful use of infrastructure and land, as well as compacting urban environments.

Finally, in the context of the current research, the term “low-income”, too, has to be taken into consideration otherwise the definition would be incomplete. As a matter of necessity, the term “low-income” dictates a building cost limitation and implies that the residential building must not exceed four to five floors, as otherwise it would escalate the capital costs due to the need for lifts and undercover parking¹⁶. Therefore, taking every aforementioned factors into consideration, the term ‘low-income medium-density housing,’ as used in this current research, refers to a multi-storey housing development (of not more than three floors) that achieves a nett density of about 80 to 100 dwelling units per hectare. This should follow with a commensurate increase in the provision of community facilities, amenities and infrastructure.

1.6 The Scope and the Geographical Area of Study

1.6.1 The Scope of the Study

Although housing is a topic that is influenced and informed by other disciplines, this particular research has been carried out in the field of architecture. Nevertheless, where necessary, it also drew upon selected information from other disciplines in order to achieve the aim and objectives of this research. This research included issues such as, *inter alia*, housing policy, method of procurement, planning ideologies and user satisfaction.

¹⁶ Stone, P. A. (1973). *The Structure, Size and Cost of Urban Settlement*. Cambridge University Press. Also: Watson, B. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. Urban Problem Research Unit. The University of Cape Town. p. 15. Behrens, R. (1993). *High Density Development: A Review of Policy Measures, Restrictive Regulations and Residential Trends in*

In addition to identifying the scope of the thesis, the research was also guided by the following key questions:

- what are the limitations of recent housing strategies (site and service and core housing, etc.) adopted in South Africa?
- what frameworks need to be considered for the development of low-income medium-density housing?
- what factors serve as obstacles to the provision of low-income medium-density housing?, and,
- are there specific changes that need to occur in the area of housing policy in order to assist in the successful provision of low-income medium-density housing?

1.6.2 The Geographical Area of the Study

Housing and its associated problems have been identified by many as a global issue. Notwithstanding this, the study focused mainly on areas within the confines of Cape Town, which is located in Western Cape Province, South Africa (refer to Diagram .1.1). In addition, references were also made to some housing projects in two other provinces namely, Gauteng and the Eastern Cape, both in South Africa (refer to Diagram 1.1).

In order to achieve the goals and objectives, the research engaged the use of two major case studies and additional three examples of recently completed low-income medium-density housing in South Africa. The two major case studies are Delft and Springfield Terrace in Cape Town. The other three examples of low-income medium-density housing are the low-income housing projects in Missionvale and Red Location, both in Port Elizabeth, Eastern Cape, and the low-income housing project in Germiston, Gauteng (all in South Africa).

The first case study area is the Delft housing project. This is in the Delft/Blue Downs neighbourhood and is situated within the Metro Southeast region of the Western Cape Province (refer to Diagram 1.2 and 1.3). Delft has been chosen because it is the most ideal

example of low-income suburban sprawl. It is a large, isolated low-density and low-income housing neighbourhood (refer to Plate 1.1).

The second case study area is the Springfield Terrace housing project in Woodstock, Cape Town, situated within the City Bowl (refer to Diagram 1.2 and 1.4). This housing project was chosen because of its appropriateness to the topic. The Springfield Terrace housing project is recent and represents an "infill" example of the inner city area (Plate 1.2). It is a low-income medium-density development located in an appropriate area of the city and it benefits from some under-utilised existing infrastructure. It has proved to be a useful case study since the design philosophy underlying this project is aimed at *inter alia* compacting, integrating and achieving sustainable urban development.

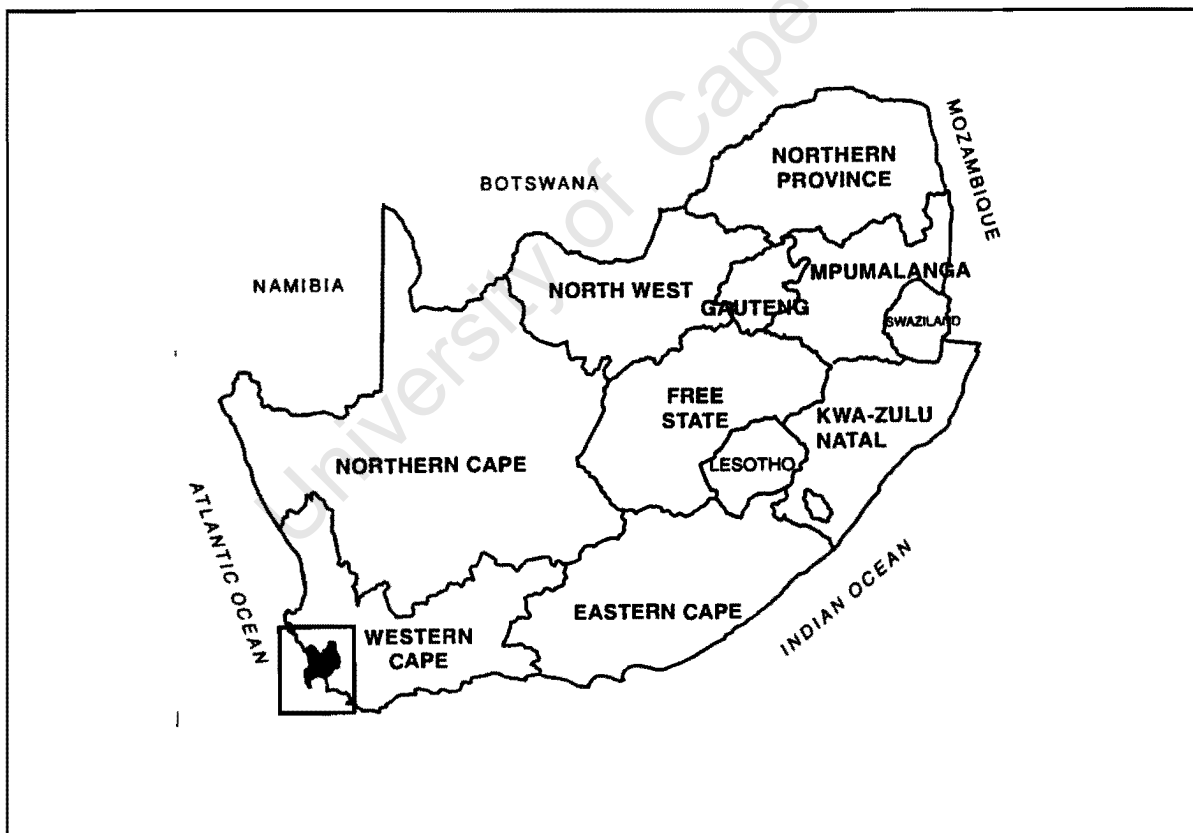
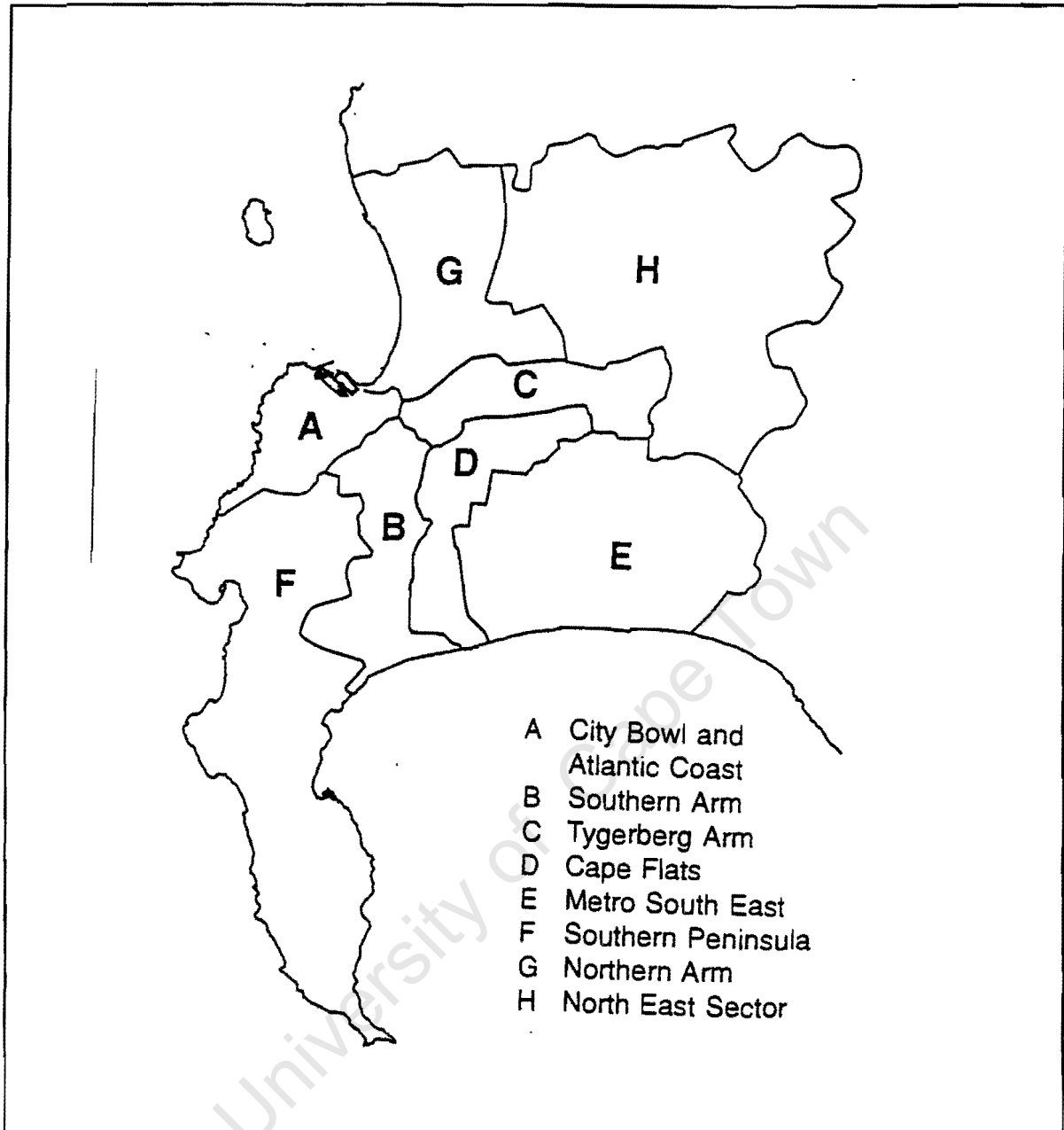


Diagram 1.1 Map of South Africa showing Western Cape Province (the location of the two major case study area) Gauteng and Eastern Cape Provinces (the locations of the other three examples of recently completed low-income medium-density housing).

Source: The Cape Metropolitan Council (1996) Metropolitan Spatial Development Framework. A Guide for Spatial Development in the Cape Metropolitan Functional Region, p. 8



key

E Metropolitan Southeast where Delft is situated.

A City Bowl and Atlantic Coast where Springfield Terrace is situated.

Diagram 1.2 Sub-Areas of the Inner Cape Metropolitan Region

Source: The Cape Metropolitan Council (1996) Metropolitan Spatial Development Framework. A Guide for Spatial Development in the Cape Metropolitan Functional Region, p. 8

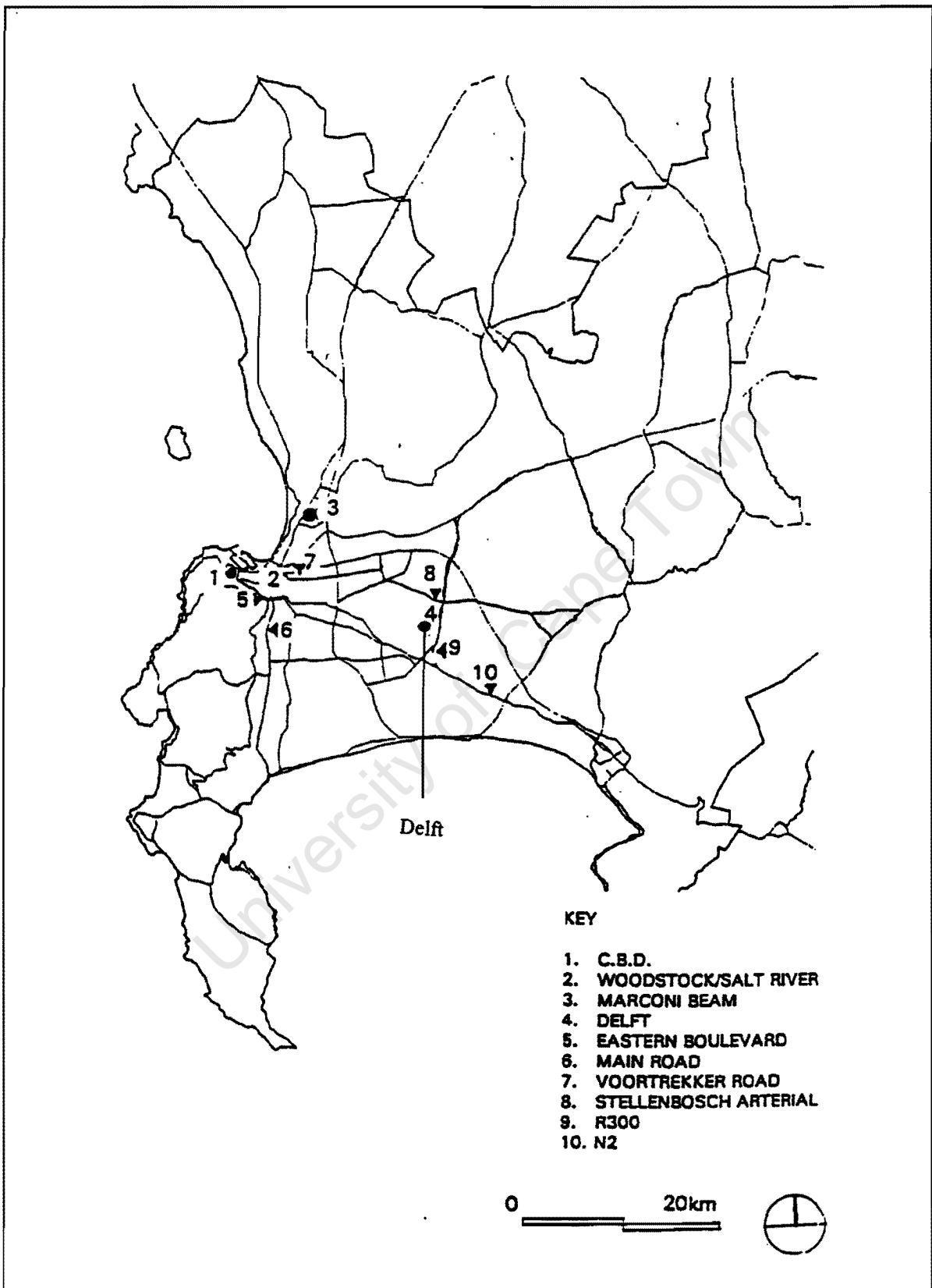


Diagram 1.3 Position of Delft (Nos. 4) in relation to Inner Cape Metropolitan Region (Nos. 1).

Source: MLH (Architects and Planners) November 1987.

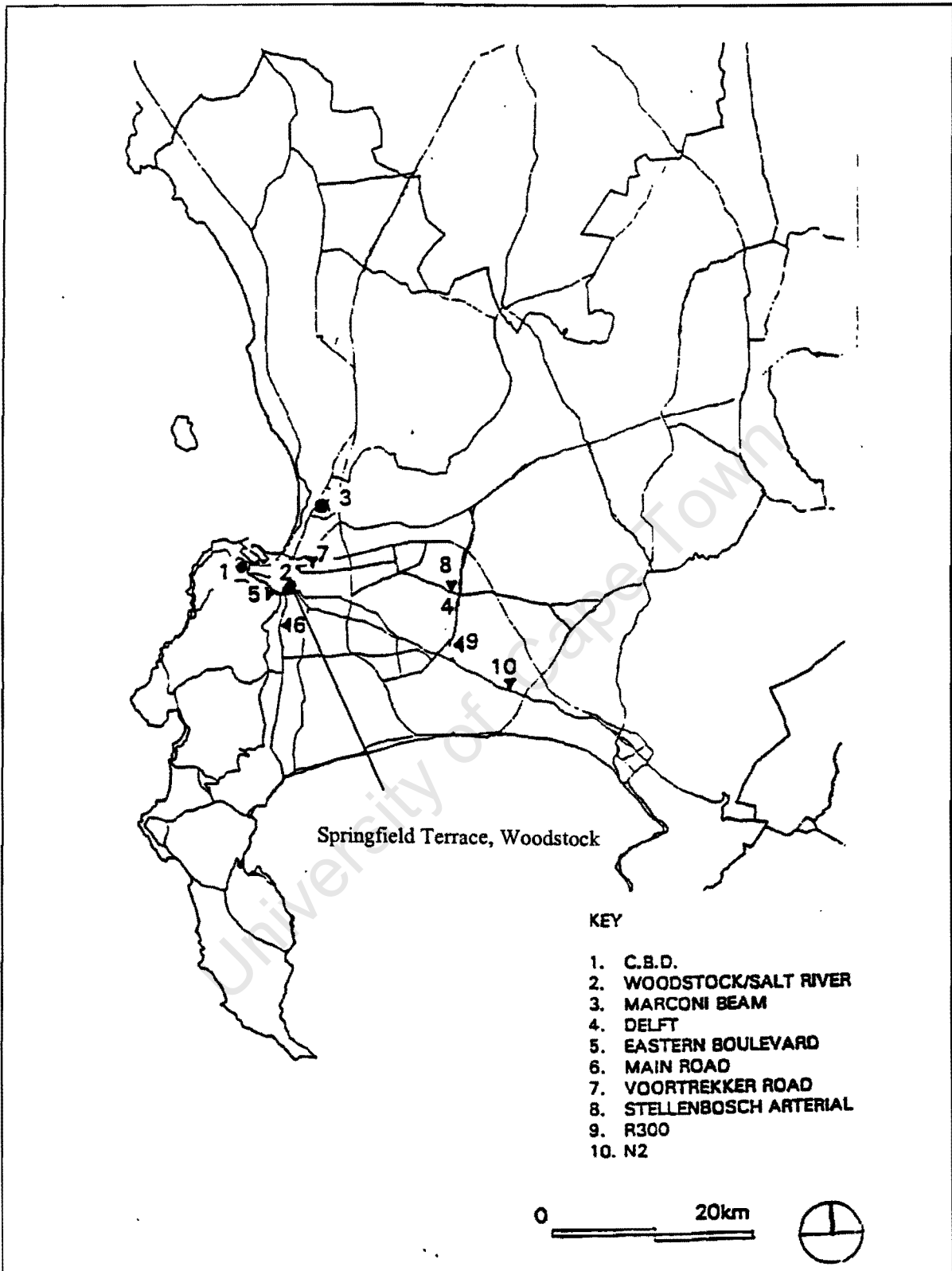


Diagram 1.4 Position of Woodstock (Nos. 2) in relation to Cape Metropolitan Region (Nos. 1).

Source: Dewar, D. et al. (1998) Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p.166

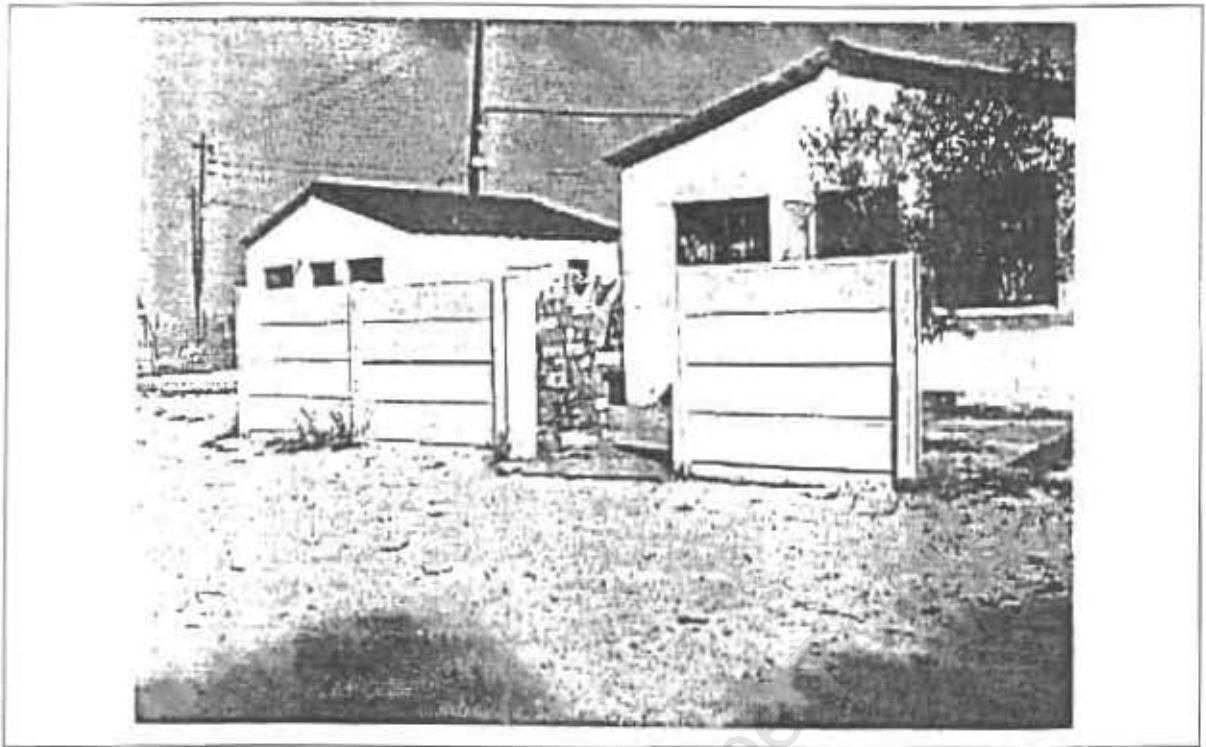


Plate 1.1 Example of dwelling unit in Delft housing project.

Source: Plate 1.1 was taken during the course of the research.

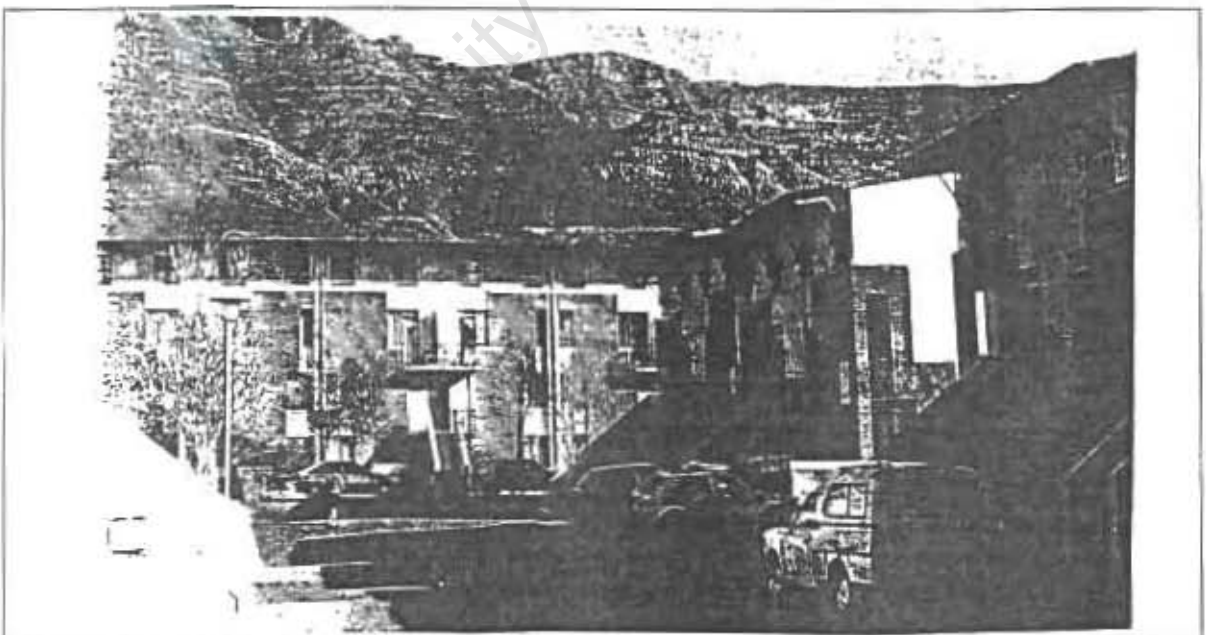


Plate 1.2 Examples of dwelling units in Springfield Terrace housing project

Source: Dewar, D. et al. (1998) Public-Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p.198.

1.7 Previous research

Low-income developments such as Delft and Springfield Terrace housing projects are areas that have been studied and well documented by professionals and individuals. The most valuable pieces of work on the Delft housing project are: The “Structural plan Blue Downs Delft” (1987). The “Delft South: An amendment to the Blue Downs local structural plan”. (1995). MLH (Architects and Planners). The “Delft Multi-Purpose Node Contextual Framework” (1999). MLH (Architect and Planners) and the “Presidential project-Delft Housing investigation” (1994) Frinsloo, J. et al.

In the case of Springfield Terrace and other examples of low-income medium-density housing projects referred to herein, the following sources were considered valuable and assisted the research: The “High-density Medium-Rise Housing: perceptions and opinions of tenants” (1993) Cape Town Metropolitan Council. The “Proposal on the Development of Institutional Housing in South Africa” (1989) Sithembe Development Facilitation. The “High Residential Density in new Low-income Developments Missionvale, Port Elizabeth” (1977). An initiative of the Delta Foundation. The “Housing in Red Location, Port Elizabeth” (1999) Journal of SA Architect. The “Settlement change and planning in South Africa” in Blank Architecture Apartheid and After. The “Public / Private Partnership in the Provision of Land for Housing both by Dewar, D. Others include the following: the White Paper on Reconstruction and Development (1994) Government Gazette and the White Paper on Housing (1994) Government Gazette.

1.8 Research Methods, Delimitation and Assumptions

1.8.1 Research Methods

The key questions raised in the course of the research, the nature of the information to be collected, as well as the aims and objectives of the research have been the major determining factors as to what research methods were ultimately employed. In relation to

the key questions, the research predominantly depended on archival, library research of primary and secondary sources

The first research method involved an investigation of some theoretical issues. The purpose of this was to develop a proper understanding of the scope and scale of the "housing problem." It involved the review of local and international literature concerning the provision of low-income housing. This research method has provided answers to some of the key questions guiding the research. The reading has concentrated on questions involving policies, design, planning ideologies and the implementation of low-income housing policies. Example of key questions include the following: What are the limitations of recent housing strategies (such as site and service and core housing) adopted in South Africa? Secondly, what changes need to occur in the area of housing policy so as to facilitate the provision of low-income medium-density housing? The research further gained useful information from lectures and seminars on housing and planning which were presented at the School of Architecture and Planning, University of Cape Town. A further useful source of information was a conference entitled 'Urban Futures 2000' at Witwatersrand University in Johannesburg, which the researcher also attended.

In order to ascertain those factors that prevent the provision of low-income medium density housing, this research included an examination of the provision of low-income housing in Delft, which is the first case-study area. The investigation focused on those factors that almost exclusively facilitate the provision of low-income low-density sprawl. To this end, the research has depended on information from the following sources: available literature of primary sources, (one of which is the Presidential project-Delft housing investigation by Prinsloo, I. et al., secondly the structural plan Blue Downs/Delft and An amendment to the Blue Downs local structural plan by MLH architects and planners). The availability of these sources of information certainly influenced the decision to use Delft as a case study.

The research examined the provision of the housing project in Springfield Terrace Woodstock, for those factors that hindered its provision. Apart from Springfield Terrace housing scheme, the Missionvale housing project was employed to further throw more light on the aforementioned issue. To this end the research depended on information from the following sources such as: Public / private partnership in the department for institutional development (1998) by Dewar, D. et al. Settlement change and planning (by Dewar, D.) in South Africa since 1994 in Blank architect apartheid and after. Edited by Hilton, J.

In order to formulate prospects for the provision of low-income medium density housing and its use to promote a new urban growth two examples of low-income medium density housing were employed. These two examples include: the Red Location housing projects in Port Elizabeth and the Germiston housing project in Gauteng. To this end, information was gathered from available literature of primary source (refer to section 7.1). These sources of information dealt elaborately with the topic of the research. Furthermore, the research conducted informal interviews with residents in Springfield Terrace about their perception of the low-income medium-density housing they reside in.

1.8.2 The Collected Data

Useful information was collected from various sources and categorised into various sets. One set of information, for instance, helped to determine, amongst other things, the factors that almost exclusively facilitate the current development of low-income low-density housing development in Cape Town. A second set of useful information included those issues that militate against the provision of low-income medium-density housing, as well as its use to compact, integrate and achieve sustainable urban developments.

1.8.3 Research Materials

- architectural drawings;
- photographic material;
- planning diagrams, and,

- site maps.

1.8.4 Presentation of Data

The information collected during the informal interviews and library study would be presented in a narrative form, along with pictures and maps.

1.8.5 Delimitation of the Scope

Delimitation of the scope of the research was ensured by focusing strictly on achieving the objectives formulated above (refer to sections 1.2 and 1.4). To this end, the research carefully examined the Delft and Springfield Terrace housing projects to illustrate why medium-density housing is seldom used in low-income housing in South Africa. Relevant issues relating to the provision of housing, such as housing policies, planning ideologies, implementation, construction techniques and design were also investigated and examined to acquire the necessary knowledge which assisted in the formulation of the prospects for the provision of the medium-density housing.

The research used specific detailed examples only where necessary. However, it does not attempt to specify what precise quantity of medium-density housing is needed in areas such as Delft or in Cape Town as a whole, so as to achieve a sustainable development.

1.8.6 Assumptions

A number of assumptions were made so as to consolidate the research problem and to assist the process. They are formulated as follows:

- It is assumed that an inversion of the factors responsible for the problems diagnosed in current township development is influenced partially by a housing paradigm that prefers low-density housing type. This would help to ensure a more economic and sustainable use of the available land.

- It is suggested that by educating the people on the benefits of a new form of urban development and involving them in the process of low-income medium-density housing, residents would be convinced of its tremendous advantages. This implies that low-income medium-density housing would be accepted by the beneficiaries through a participative process, as opposed to the currently imposed typical township development, which consists primarily of single dwelling units on a plot for a family.
- It is assumed that there are capable housing professionals amongst the private and public sectors who can encourage such a new form of urban development.
- It further assumed that, sooner rather than later, the correct political will would prevail to address the question of sustainable urban development.

1.9 Structure of the Thesis

In terms of structuring and defining the content of the research, this thesis is divided into two parts. Each part consists of several chapters.

Part 1. Conceptualisation of the Problem

The aim of the first part is to develop an in-depth understanding of the area of study for the research. This is in pursuance of the first two objectives of the research namely:

- to acquire an in-depth understanding of the housing policies, both internationally and locally (in developing countries generally and in South Africa specifically). It is hoped that this understanding will assist in developing a perception of the factors responsible for the current low-income low-density sprawl in Cape Town;
- to determine the need for alternative urban development. This will be achieved by reviewing the general problems associated with prototype single dwelling planned communities by comparing it with higher-density planned communities on the bases of cost analyses. Through the above, the advantages of higher-density development will be established;

Hence, it investigated the concepts of the current model of housing (single dwelling units) in terms of housing policies and planning ideologies and those factors that have led to its provision. Furthermore, it focused on the various problems resulting from the aforementioned model of housing in township development. An understanding of above, assisted the research to tease out the areas to investigate for those factors that facilitate the provision of low-density sprawl and those factors that prevent the provision of medium-density housing as a tool for achieving a new form of urban development.

Part one of the research therefore, consists of the following chapters.

Chapter 2: Overview of Low-Income Housing Policies in Developing Countries as a whole, and in Cape Town, South Africa, in particular

In order to acquaint the research with the concepts responsible for the formulation of the different trends in housing policies, this chapter looks at low-income housing policies in Cape Town, South Africa in the context of those of other developing countries to date. Notwithstanding the fact that the case-study areas are located in Cape Town, it is nevertheless important to develop a broader perspective of the housing dilemma and to relate strategies of housing development of the two case studies. To this end, the low-income housing policies for most developing countries started in the 1950's while that of Cape Town started around 1890. This study revealed the concept and motives behind each policy. It also dealt with the advantages and shortcomings of housing policies and the particular model of housing associated with each policy.

Chapter 3: The need for Alternatives to Conventional Township Development

The need for alternative township development approaches has prompted this chapter to compare the impact of two different housing models preferred or identified by the research. This comparison demonstrated the advantages of medium density housing over low-density sprawl. This assisted the research to draw out certain issues for examination in the case-study areas.

As a preface to the above, the chapter includes a study of the structure and form of the metropolitan city of Cape Town, along with the trends in residential development according to the various income groups. Emphases were placed on where most low-income and subsistence-income residential areas are located in relation to Cape Town. It elicits the planning ideologies that have favoured the predominant model of housing in Cape Town.

Part 2: Towards Formulating the Prospects for Low-Income Medium-density Housing in South African cities

The aim of this part of the thesis is to explore the prospects for the provision of low-income medium-density housing in South African cities in general and Cape Town specifically. Prior to establishing the above, this section, amongst other issues discussed those changes that should occur in order to facilitate the provision of the desired housing type.

Chapter 4: Case Studies: Illustrating why Medium-density Housing is seldom applied in Low-Income Housing in South Africa

This chapter pursues the third objective of the research, by conducting an investigation into two case studies (i.e. the Delft and Springfield Terrace housing). The investigation into the Delft housing project revealed those factors that facilitate the provision of low-income low-density sprawl only. Apart from facilitating low-density sprawl these factors also militate against the provision of low-income medium-density housing. Investigation into Springfield Terrace housing revealed those factors or conditions that militate against the provision of low-income medium-density housing types proposed by the research. In line with the above, the investigation examined these projects from planning to execution stage. This investigation also included the use of this housing type to promote urban developments that are compact, integrated and encourage mixed-uses as well as promote sustainable urban development.

Chapter 5: Case Studies: The Prospect and Opportunity for Low-Income Medium-density Housing in South Africa.

This chapter takes on the task of achieving the last objective, namely, discussing the changes required to facilitate the provision of low-income medium-density housing as well as the use of this housing type to achieve a new form of urban development. This chapter employed two examples of the aforementioned housing type at a stage in order to throw more light on this issue. These changes were found in the following areas:

- legislative policies of certain central local departments that are very important to the provision of housing in Cape Town;
- the provision of rental accommodation in the desired housing type;
- the institutional framework and mindset of both the public and the private sectors, and,
- in a partnership between the public and private sectors.

Chapter 6: Conclusion

This chapter considers the manner in which the aim and the various objectives of the research were met and summarised. The viewpoints, deductions, conclusions and the proposals contained in the research are reviewed.

CHAPTER TWO

2.0 OVERVIEW OF LOW-COST HOUSING POLICIES IN DEVELOPING COUNTRIES AS A WHOLE AND IN SOUTH AFRICA IN PARTICULAR

2.1 Introduction

The intention of this chapter is to look at local South African housing policy in the context of the international discourse in this regard. Thus it looks at the evolution of housing policy in general and of Cape Town in particular since the year 1890, with reference to international housing policy in developing countries. Although housing policy in Cape Town actually dates back to the 1890's, the policies of other developing countries will only be examined from the 1950's onwards. The reason for this is the following: It was in 1890 that the first attempt was made in Cape Town towards providing accommodation for African stevedores in the dock location on the western boundary wall of Table Bay Harbour¹⁷. On the international scene, however, the research only looks at housing policies in developing countries from the 1950's onwards, because it was during this post-independence period that most governments realised the extent of the housing problem¹⁸. This study explores those problems and obstacles that have influenced the decisions of governments of developing countries. Some of these problems also throw light on how international organisations such as the World Bank and United Nations have engaged with housing programs in an attempt to assist developing countries with the provision of low-income housing.

2.2 The Notion of the Welfare State

By the late 1940's and early 1950's most developing countries realised the scale of the housing problem, and public opinions and official policies were immediately influenced

¹⁷ Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation p. 1 University of Cape Town and Koenigsberger, O. "Third World Housing Policies Since the 1950's" in: *Habitat International*. (1986), vol. 10, no 3, p. 27. Printed in Great Britain and respectively.

¹⁸ Koenigsberger, O. "Third World Housing Policies Since the 1950's" in: *Habitat International*, vol. 10, no. 3. p. 27. Printed in Great Britain.

by the welfare state ideas which predominated in Britain and the Netherlands. This was at a time when most government of developing countries began the task of providing affordable housing to low-income earners. To this end, the principle of providing large subsidised housing estates to reduce the backlog of housing came into effect.

As a result, this part of the research reviews the housing policies that have been delivered to date by the Government of South Africa and by governments of other developing countries. During this review of housing policies in South Africa reference will be made to Cape Town examples where relevant.

2.2.1 Working Class-Housing Policy in Cape Town (1890-1947)

In South Africa the Welfare State idea started much earlier than in other developing countries. A notable example of this is the working class housing policy which prevailed in Cape Town.

The working class housing problem in Cape Town is as old as the city itself¹⁹ and it is therefore not a surprise that the housing policy dates back to the 1890's. Starting from the year 1894, the Cape Town Municipal Corporation made several attempts to address the problem of the housing shortage, but these attempts met with various challenges which made them less successful. The challenges include *inter alia* problems relating to the condition of sale,²⁰ and the vote by the city's ratepayers against the Cape Town Municipal proposal to finance artisans' dwellings²¹.

There was an increase in building activities, particularly the construction of houses in District Six, due to the outbreak of the Anglo-Boer war, which increased the city's

¹⁹ Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation, p. 1. University of Cape Town.

²⁰ Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation. University of Cape Town.

²¹ Report of Housing Committee (Appointed by the Minister of Public Works), 1920. U.G. 4-20. (Hereafter RHC) p.10. Le Grange, L. (1985) Working Class Housing 1890-1947: Segregation and Township Formation.

population.²² Very few houses were built by the Cape Town Authorities, except for those built in Ndabeni and the 20 labourers cottages built in Raapenberg in 1902 by the Mowbray Municipality.²³ For some reason the Cape Town Municipality could not deal with the housing problem during this period. The reasons for their inability to deal with the housing question were as follows:

- the employers only paid minimum wages to their workers and did not offer any housing subsidy;
- the Cape Town Municipality operated a very small geographical constituency. In addition the Cape Peninsula was made up of small but autonomous local authorities, and thus the Cape Town Municipality's sphere of influence and power remained limited; and,
- there was no legislative mechanism in place to cope properly with the obstacles of urban management.²⁴

As early as 1917 the Cape Town City Council adopted the Garden City Planning approach as a solution to the housing problem in Cape Town. The idea was to provide housing and public amenities for the Europeans and separate housing for the non-European population. Between 1919 and 1929 the Cape Town Municipality embarked on its first housing scheme for the 'Coloured' municipal employees on a site known as Maitland, which was described in the following terms at the time²⁵:

"the village will consist of 122 cottages, and provision is made for areas surrounding each of the villas, and a large open square or space is reserved as a recreation ground

²² Pinnock, D. *The Brotherhoods*, Cape Town, 1984, p. 19. Le Grange, L. (1985) *Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation*, p. 2.

²³ Saunder, C. "The Creation of Ndabeni: Urban Segregation and African Resistance in Cape Town" in Saunder C. ed. *Studies in the History of Cape Town*, 1984, vol. 15, p. 173. Shorten, J. *The Golden Jubilee of Greater Cape Town*, Cape Town, 1963, p. 272. Le Grange, L. (1985) *Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation*. University of Cape Town.

²⁴ Le Grange, L. (1985) *Working Class Housing in Cape Town 1890-1847: Segregation and Township Formation*, p. 2. University of Cape Town

²⁵ Le Grange, L. (1985) *Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation*, pp. 8 - 9. University of Cape Town.

where children of the village will be able to enjoy their play and sports without danger from passing traffic, under hygienic conditions."²⁶

Between 1920 and 1939 a Central Housing Board (C.H.B.) was established in terms of the 1920 Housing Act in South Africa. The Central Housing Board was established to improve health standards by providing housing, particularly in inner city slums where the influenza epidemic was rife at the time. Furthermore the programme of residential segregation of the African population gradually unfolded during this period.²⁷

The housing problem took on alarming proportions in the 1940's, due to the population explosion within South African cities and the increasing numbers of squatters in the major cities²⁸. By 1943 the Cape Town City Council incorporated Windermere with the aim of 'clearing up' the squatter settlements. Basically by 1946 it was able to expropriate a number of properties, promising that it would re-house people from Windermere in the new township scheme of Factreton. The same programme was also implemented in Retreat. Although it may have improved sanitary conditions in those areas, the quantity of housing provided did not solve the problem of overcrowding²⁹.

The initiation of the 'slum clearance' scheme and the building of Municipal locations in Cape Town were hampered throughout the period between the two World Wars. This was as a result of the continued reluctance – as well as the limited capacity – of the local authorities to bear the cost involved in fulfilling their statutory obligations³⁰. Basically, the shortage of housing in Cape Town was far from resolved. In the long run, whatever housing programs occurred in the 1950's around the Cape were in many respects extensions of existing practices.³¹

²⁶ Mayor's minutes, September 1918, p. 12 and Le Grange, L. (1985) Working Class Housing 1890-1947: Segregation and Township Formation, p. 9. University of Cape Town.

²⁷ Wilkinson, P. "Housing Policy in South Africa," in: *Habitat International*, 1998, vol. 22, no. 3, pp. 217-218.

²⁸ Wilkinson, P. "Housing Policy in South Africa," in: *Habitat International*, 1998, vol. 22, no. 3, pp. 217-218, and Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation, p 16, University of Cape Town. respectively.

²⁹ Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township Formation, p 18. University of Cape Town

³⁰ Wilkinson, P. "Housing Policy in South Africa," in: *Habitat International*, 1998, vol. 22, no. 3, pp. 217-218,

³¹ Le Grange, L. (1985) Working Class Housing in Cape Town 1890-1947: Segregation and Township

2.2.2 State Housing Policy in Developing Countries in general and in Cape Town, South Africa, in particular

By the 1950's most governments of developing countries began to realise the magnitude of the housing problem. Before this period the rich and middle-income groups were supposed to rely on market forces to provide them with the required shelter of the right size and standard of housing. As for the lower income groups they depended on a second-hand trade, euphemistically called the 'trickling down process'. As soon as governments realised the existence of insufficient housing to be a serious problem, they began looking for solutions. One of the solutions was that of providing subsidised public housing in the form of housing estates, new towns or extensions to existing cities³². In a short while most developing countries discovered that they had neither the funds nor administrative and technical manpower to allow them to begin dealing with the problem. However, it is important to note that practically none of the low-income earners could afford to pay rent for the minimum standard housing provided by the public sector agencies at that time. Apart from cities like Singapore and Hong Kong, there was no country or city that could provide public housing in sufficient numbers to cope with the steadily worsening situation. In addition to funding problems many countries also experienced problems in terms of management skill shortage and a lack of technical expertise. For example, as early as 1963, Singapore experienced a sudden set-back due to a lack of administration and personnel, when the group of British counterparts left its management section with only three trained local officers to carry on with the provision of housing.³³

In South Africa, with particular reference to Cape Town, the situation within the housing scenario differs from that of other developing countries although certain similarities did exist. From research and studies in this field, it is apparent that the two areas

Formation, p 20. University of Cape Town.

³² It was not surprising because in the post-war decades, public opinion and official policies were strongly influenced by the Welfare State idea of Britain, Scandinavia and the Netherlands. Koenigsberger, O. "Third World Housing Policies Since the 1950's" in: *Habitat International*, vol. 10 1986, p 28.

³³ Abrams, C. (1964). *Man's Struggle for Shelter in an Urbanising World*. Printed in the United States of America. pp. 72-88

experienced housing problems³⁴ which were aggravated by limited finance with regards to the budget for housing in the government sector. This is highlighted by the fact that between the late 1940's and early 1960's the housing problem was so alarming, that it demanded urgent attention from the local authorities. This was also the case in Cape Town.³⁵ Ultimately, the scale and magnitude of the housing problem compelled governments in developing countries and South Africa to adopt a housing policy known as 'the welfare state notion'. Under this policy the various governments were involved in the responsibility of providing low-income housing for rent at subsidised rates to the urban poor.

The period between the 1940's and the 1960's in South Africa witnessed the establishment of a housing policy in most South African cities that allowed for and was based on the separation of settlement according to social status and race³⁶. The main idea was to control the influx of unemployed Africans from the proposed settlements known as 'Bantustans' into the cities. Secondly, there was a proposed resolution of the 'Bantu housing problem' involving an effort to eliminate the apparently uncontrolled areas 'held in Native ownership'. Thirdly, the housing policy at that time prevented Africans from holding freehold land tenure in 'white' areas *per se*³⁷. The effort and concept as to how to provide adequate shelter in properly planned Native townships was addressed as follows:

- the African housing policy was brought under the full control of the Department of Native Affairs;

³⁴ Wilkinson, P. "Housing Policy in South Africa" in *Habitat International* (1998), vol. 22, no. 3 p. 218 and. Koenigsberger, O. "Third World Housing Policies Since the 1950's" in: *Habitat International*, (1986), vol. 10, no. 3, p 27.

³⁵ Wilkinson, P. "Housing Policy in South Africa" in *Habitat International* (1998), vol. 22, Nos. 3, pp. 218-219.

³⁶ Willem van Vliet. (1990). South Africa in: *International Handbook of Housing Policies and Practices* Pages 588-589. Printed by Greenwood Press, New York.

³⁷ *To control the over-populated Native townships and the numerous squatter camps efficiently, would be attempting the impossible..... Only by the provision of adequate shelter in properly planned Native township can full control be regained, because only then will it be possible to eliminate the surplus Natives who do not seek or find an honest living in the cities (by removing them to the 'Reserves' or 'Bantustans,' as they were beginning to be officially labelled at this time). But as will be seen below, the more fundamental attack was on the right of Africans to freehold land tenure in white areas per se. . Wilkinson,*

- laws were enacted that made it possible for the use of previously excluded African artisans to facilitate the provision of “Native” housing. The employers of African labour were then levied as a means of offsetting some of the cost of accommodating the African population in urban areas;
- the establishment of a National Building Research Unit made it possible for industrial production techniques to be explored to facilitate the provision of mass housing as rapidly and as economically as possible,³⁸; and,
- a site and service housing scheme was introduced in properly planned “Native Townships”. This was done in order to achieve full control over the population of the sprawling squatter settlements. This programme was later implemented throughout South African cities.³⁹

Housing policy in South Africa between the middle of 1960’s and the middle of 1970’s was the ‘ideal of total apartheid.’⁴⁰ Later on the African population undermined influx control instituted by the government by people coming into the cities. Attacks on the right of Africans to freehold land tenure in ‘white’ urban areas had already resulted in the destruction of so-called ‘black spots’ like Sophia Town (in Johannesburg’s western suburbs), while the removal of Africans from other freehold areas was already in progress throughout the country. During this era ‘home ownership’ schemes designed to encourage Africans with urban residential rights to build their own houses were reduced from 99-year periods to a 30-year leasehold tenure. This period also witnessed the cessation of the provision of family housing in the urban centres. This was replaced by the provision of hostel accommodation for ‘frontier commuters’ and migrant contract workers.⁴¹

P. “Housing Policy in South Africa” in *Habitat International* (1998), vol. 22, Nos. 3, p. 219.

³⁸ *The development of segregated mass public housing estates (township) on the peripheries of the cities became the hallmark of this period.* Willem van Vliet. (1990).: South Africa in: International Handbook of Housing Policies and Practices, pp. 588-589. Printed by Greenwood Press, New York.

³⁹ Wilkinson, P. “Housing Policy in South Africa” in *Habitat International* (1998), vol. 22, no. 3. pp. 219-220.

⁴⁰ Willem van Vliet. (1990) South Africa in: International Handbook of Housing Policy and Practises. p 589 and . Wilkinson, P. “Housing Policy in South Africa” in *Habitat International* (1998), vol. 22, no. 3. p. 220

⁴¹ Willem van Vliet. (1990) South Africa in: International Handbook of Housing Policy and Practises. 1990. pp. 589 and Wilkinson P. (1998) Housing Policy in: *Habitat International*, vol. 22, Nos. 3. pp. 220

The housing condition in South African cities plunged further into a serious crisis between the years 1976-1977. This was because neither the intensified influx control nor the restrictions placed on the provision of family housing during the late 1960's had prevented the African population of the major urban centres from continuing to grow. This led to illegal squatter settlements on the urban landscape in Cape Town, even though the authorities used force to suppress or remove them, due to the apartheid laws and regulations that existed in the Western Cape. In summary, the housing policies from the two areas (i.e. South Africa and developing countries) were not effective for different reasons. In Cape Town, the housing schemes designed to segregate Africans into the Townships was not effective enough to prevent influx control or to prevent the population from increasing. In addition and on a more global scale, inefficient and corrupt administrative practices as well as limited finance were obstacles that reduced the effectiveness of housing policies in developing countries⁴².

2.3 The Employers' Housing Schemes

Prior to the adoption of employers' housing schemes, in certain instances there was an unpopular attempt to resolve the problem of insufficient housing. This programme was referred to as "solution by design". Architects all over the world made gallant efforts to rescue public housing by making up in quality what was lacking in quantity. This programme turned out to be unsuccessful. The reason for this failure was that architects of the 1950's and 1960's could not reach out to the many thousands of families who were to live in their public buildings. As a result of this, architects read up on sociology, anthropology, economics and climatology in the hope that they could make up for the lack of personal acquaintance with the people for whom they were designing and building homes.⁴³

⁴² . Wilkinson, P. "Housing Policy in South Africa" in *Habitat International* (1998), vol. 22, no. 3 p. 218pp. 221 and 229. And for the International housing scene Abrams C. (1964) *Man's Struggle for Shelter in an Urban World*. pp 79 and 142-143.

⁴³ Koenigsberger, O. "Third World Housing Policy since the 1950's" in: *Habitat International* (1986), vol.10. no. 3. pp 28-29. Printed in Great Britain.

As a consequence of this failure, officials developed a policy known as “Employers’ housing policy”. This programme was imported into the developing countries from the developed nations. The idea was to involve the employer so that they would provide the capital and subsidise the rental expenses which were necessary to make the new homes affordable and economically sustainable.⁴⁴ Although quite a number of subsidised homes were built in the form of model housing and model cities, the fact remains that these programmes according to Koenigsberger (1986) became a hotbed of discontent in the developing countries. The end users of the houses were not involved in the design or construction stages. However, quite a few of these houses were built because this brought about the fear that the financial bond (‘tied’ cottage) would prevent employers from changing their workers⁴⁵.

In South Africa, an early example of the employers housing scheme is in Mowbray, Cape Town. It had its own set of problems – described hereunder are factors which prevented it from being a successful scheme:

- employers only paid minimum wages to their workers and were not take into consideration all or part of the cost of providing accommodation at subsidised rates which workers could afford; and,
- there was no legislative mechanism in place to cope properly with the obstacles of urban management.⁴⁶

⁴⁴Koenigsberger, O. (1986) Third World Housing Policy since the 1950’s in: *Habitat International*, vol.10. no. 3. Pages 28-29. Printed in Great Britain.

⁴⁵ *In the third world countries, it was not the workers but the employers who objected, particularly as the attempts to persuade them to invest in the low-income housing coincided with the issue or strengthening of legislation for tenant protection. In fact, quite a number of subsidy employer’s houses were built in spite of these fears. While in the 19th-century Britain, worker and trade unions objected to the employers housing, which they referred to as “tied cottages”*. Koenigsberger, O. “Third world housing policies since the 1950’s” in: *Habitat International*, (1986), vol.10 no. 3. p. 29. And Abrams C. (1964) *Man’s Struggle for Shelter in an Urbanising World* .pp. 145-149. Printed in the United States of America

⁴⁶ Le Grange, L. (1985) *Working Class Housing in Cape Town 1890-1847: Segregation and Township formation*. p 2. University of Cape Town.

2.4 Reducing Costs

After experiencing the failure of the 'employer's housing scheme' within developing countries, policy makers returned to the concept of 'reducing costs'. It was reasoned that if the price for each unit could be reduced, the number of public housing units could be increased accordingly. The first suggestion towards the realisation of this goal was to reduce the size of the respective buildings, resulting in a debate over the advisability of starting with only one or two rooms per family. The second suggestion was to reduce the standard of housing to the minimum affordable, while still acceptable, standard for the poor. The shortcomings of such cost-saving measures were soon evident. The same applied to the standards of services such as water, sanitation, waste recycling and access roads⁴⁷. These measures were later adopted in Cape Town with examples of the same in Towns six in Delft.

2.5 Mass Production and Prefabrication

When the governments of most developing countries realised their inability to meet the housing shortage and to build the millions of new houses needed, they looked to technology from the more advanced nations.⁴⁸ It seems that politicians and housing experts were impressed with the dramatic reduction of the cost of motor cars in the 1920's through mass manufacturing and assembly line production. It seemed an obvious solution to model the production of mass housing on similar principles. Nevertheless, the methods adopted in developing countries apparently turned out to be less than successful. One of the reasons was that in the United Kingdom these processes had been designed to save labour, while another reason was that at that time the reduction of costs was less important than the reduction in construction time. However, the reverse applies to most developing countries where labour was cheap, which meant that reducing the

⁴⁷ Koenigsberger, O. "Third world housing policies since the 1950's" in: *Habitat International*, (1986), vol.10 no. 3. p. 29.

⁴⁸ Abrams C. (1964) *Man's Struggle for Shelter in an Urbanising World* p. 165. Printed in the United States of America.

construction time was not, in itself, enough to justify investment in just mass production processes (refer to plate 2.1).⁴⁹

A typical example of what happened when these mass production methods were adopted can be seen in Ghana. In a bid to run the programme effectively, Ghana entered into an agreement with the then Soviet Union (refer to plate 2.2). The agreement involved the Soviet Union assisting Ghana to build a factory for producing the components needed for prefabricated buildings. It later turned out that the factory was unable to meet the high demand for its units, mainly for the following reasons:

- it was difficult for the factory to obtain sufficient quantities of cement and mild steel reinforcement;
- the factory was producing below capacity because the plants and equipment in the factory were obsolete and in need of repair;
- the local contractors were unfamiliar with the construction technology. Furthermore, lifting equipment was scarce in Ghana. This was coupled with the fact that the factory was more involved in actual site construction than had originally been intended. These factors limited the number of dwelling units that could actually be produced within a given period; and
- the Prefabricated Concrete Panel Factory fell under the jurisdiction of the Ministry of Works and Housing and it shared their common problems: inter-organisational rivalry, lack of corporate freedom owing to excessive bureaucratic control, and the inability to attract or retain good personnel.⁵⁰

In summary, the reason for the failure of prefabricated system of housing, in other developing countries is very similar to those in Ghana. Very often local contractors were unfamiliar with the construction technology it required. Furthermore, the introduction of this housing scheme in developing countries seem to be inappropriate, given that the

⁴⁹Koenigsberger O. "Third World Housing Policy Since the 1950's" in: *Habitat International* (1986) vol.10. no. 3, pp. 28-29. Printed in Great Britain.

⁵⁰Ofori. G. "Housing in Ghana: The case for central Executive Agency" in. *Habitat International* (1989), vol. 12 no. 1.,p. 10

conditions that facilitated this scheme in Britain and other developed countries were simply not present. For instance, before the construction of building, commenced this scheme required a large amount of money to construct and later maintain factories for producing important components needed for prefabricated building. The situation was further compounded by the fact that it was more expensive to provide dwelling units through this scheme given that labour was cheap in developing countries. As a result, this scheme failed to address the problem of housing in developing countries.

2.6 The Nature of Self-Help and Aided Self-Help

Official self-help programmes were employed in developing countries, having been initiated and fashioned to suit a fast expanding urban environment. Moreover, specialised labour was available in cities, so this could be hired for the actual construction work. This was a better arrangement than either self-help or mutual assistance. This approach was used in the cities because the workers (for whom the houses were being built in the first place) did not have the time and energy to do the building and construction themselves, nor were neighbours, families or the tribe available for mutual assistance. Although self-help and mutual self-help schemes continue to operate in the rural areas of the world, it is difficult to apply such schemes in an industrialised environment and to speed up its processes by mutual assistance.⁵¹

It is important to note that the nature of public assistance and the degree of self-help efforts vary from one area to another. In the villages or small towns where self-help traditions have always been strong, the governments of developing countries have assisted individuals in several ways:

- they provided the necessary infrastructure such as roads, sanitation, water, markets and schools, and,
- prospective owners could be supplied with the particular parts of the house that were difficult for the builder to obtain.⁵²

⁵¹Abrams C. (1964) *Man's Struggle for Shelter in an Urbanising World*, p. 169. Printed in the United States of America.

⁵²Abrams C. (1964) *Man's Struggle for Shelter in an Urbanising World*. pp 169-169. Printed in the United

The particular forms of assistance offered to individuals in the cities were different to those offered in the smaller towns. For instance, loans were made available to assist individuals in the city to purchase building materials and sites. Secondly, the workers (builders) were trained and supervised, and block-making machines were provided. Sometimes forms for walls or pre-assembled roofs were also supplied. At times self-help was limited to a few simple tasks, with more complex aspects of home-building such as plumbing, wiring and masonry being assigned to skilled workers.⁵³

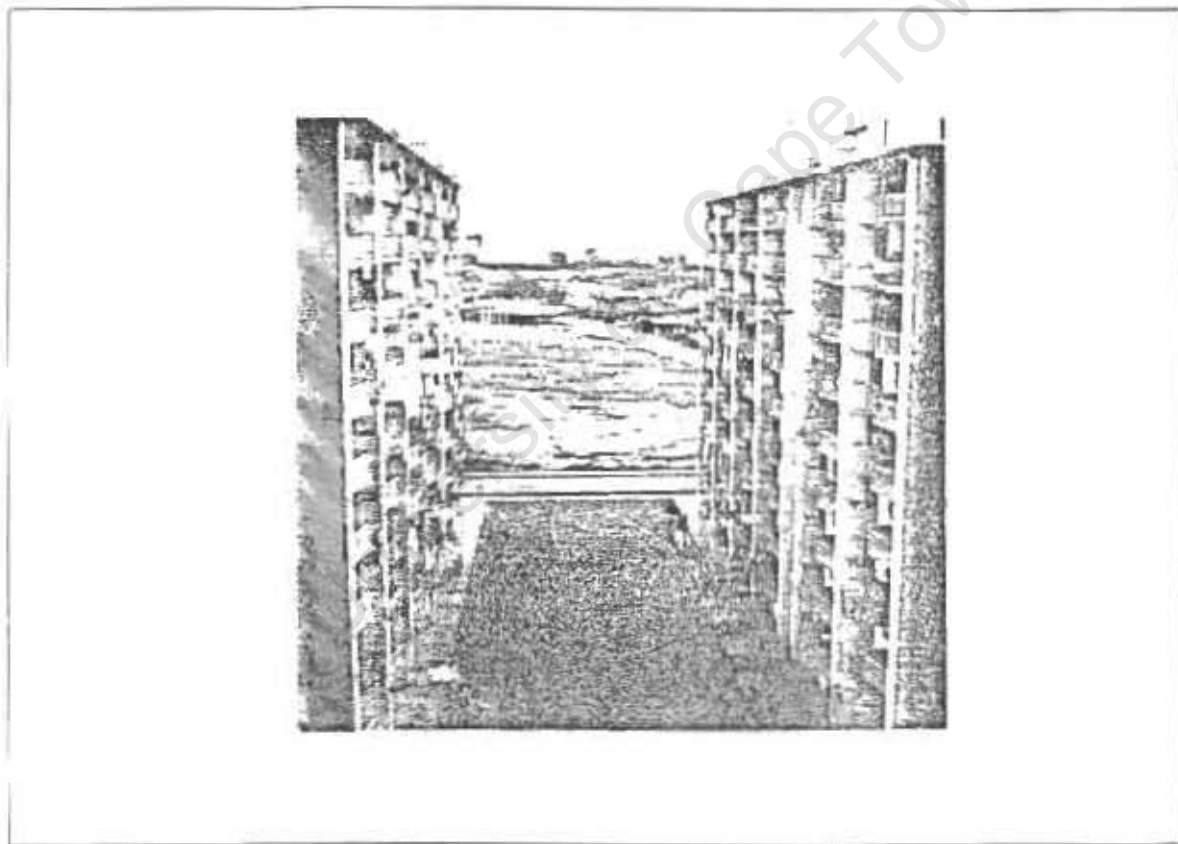


Plate 2.1 Mass Housing in Singapore.

Source: Abram, C. (1964) *Man's Struggle for Shelter in an Urbanising World*, Fig. 40

States of America

⁵³Abram, C. (1964) *Man's Struggle for Shelter in an Urbanising World*. Printed in the United States of

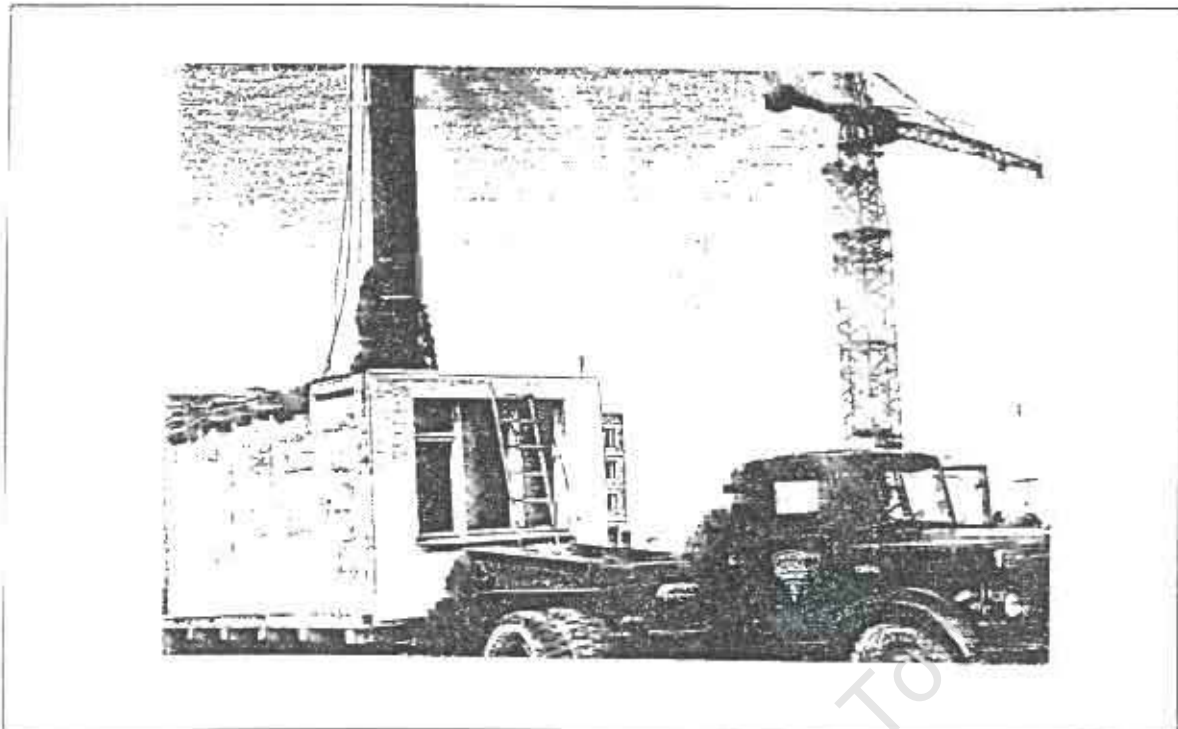


Plate 2.2 An example of machines used to construct prefabricated residential buildings in Ghana.

Source: Abram, C. (1964) *Man's Struggle for Shelter in an Urbanising World* Fig. 44

Such aided-self help housing schemes evolved parallel to attempts to solve the mammoth problem of the public housing shortage by developing improved technical production methods. Some advocates of the self-help-housing model sought the solution in joint efforts of the public and private sectors. The advantage of this programme was that it eliminated the cost of labour. It was discovered that, however cheap the cost of labour might be, it could account for 50% of the total cost. It was suggested that the future beneficiaries of public housing were required to supply their own labour free of charge, while public sector agencies looked after land, services and all those parts of the job that required special skills or special materials.⁵⁴

The USAID Organisation emerged as the champion of this idea and recorded some notable successes in individual projects. As with the self-help strategy schemes, most of these successes occurred in rural, or semi-rural areas, which were traditionally

America.

⁵⁴ Abram, C. (1964) *Man's Struggle for Shelter in an Urbanising World*. Printed in the United States of America.

accustomed to providing their own shelter, usually through the combined efforts of large extended families⁵⁵.

Although these programmes were very successful in the rural communities, they had their own problems too. Some of these have been identified by the Puerto Rican Planning Board to be the following:

- it took a very long time to build self-help houses;
- it was difficult to construct the self-help dwelling under a co-operative arrangement with small groups of about fifteen to twenty families. This was simply as a result of delicate job orientation;
- a team of experts, including engineers, inspectors and administrative personnel, was required to administer the program;
- the cost of dwellings in the rural areas did not reflect the true cost of construction, as it did not take into account consideration the following factors: the cost of the parcel of land in the rural community, the salaries of the technical and administrative personnel, and the cost of future improvements to be made in the rural communities regarding the provision of essential services;
- it was sometimes problematic to acquire and operate costly construction equipment;
- the actual design and construction of the housing units buildings themselves by various individuals and families involved tended to be imperfect because they often lacked the requisite experience and skills; and
- such self-helping housing construction schemes were not necessarily more economical or more efficiently constructed, because the modern techniques of mass production were not in fact used.⁵⁶ All these factors, although they were actually identified in relation to Puerto Rico, are also relevant to the South African context, even on a more global scale.

⁵⁵ Koenigsberger, O. "Third World Housing Policies Since the 1950's" in *Habitat International*, (1986), vol. 10 no 3 p. 30.

⁵⁶ Puerto Rico Planning Board, A Proposal for a Low Cost Housing Program (Commonwealth of Puerto Rico, San Juan, Puerto Rico undated but probably 1958) and Abrams C. (1964) Man's Struggle for Shelter

2.6.1 Instalment Construction

'Instalment Construction' evolved as a variant of the self-help-housing program in developing countries. It was operative in situations where mortgage financing was unavailable. Many people in less developed areas of South Africa built their houses serially, as this was often the only way that many families without accumulated savings could build their homes. So, for instance, after buying a piece of land, the family would wait until it could purchase the necessary building blocks. Gradually, the family would put up a wall with the help of family members, or they might hire a professional worker instead. The family would then wait until it had accumulated enough money for roofing, doors and windows. In the final stages of building such instalment builders / building projects needed financing to help him complete his building. Often a small loan was sufficient. However, this process has not been sufficiently encouraged. As was the case with the aided-self-help schemes, the instalment construction-housing scheme too proved to be a very slow process of providing housing⁴⁹ - far too slow to meet the current housing shortage.

2.6.2 Core Housing

Core housing is a further major variant of self-help strategies. This programme was introduced into developing countries by the United Nations Missions and it has now become part of the housing vocabulary. However, no single type of core housing programme could be uniformly applied to all countries and climates. Each country or region had to have a particular design. For instance, a poor country such as India had a one-room core for small families. The two-room core could be expanded horizontally for the growing family, as well as vertically. There were also row core houses, the front and the rear of which were expandable; and the core built as part of a compound. Lastly there was also the core house in warmer climates, which was merely composed of a roof, supports, and a floor, forming a space which was then walled in by the occupant

in an Urbanising World, pp. 171-172. Printed in the United States of America

⁴⁹ Abrams C. (1964): Man's Struggle for Shelter in an Urbanising World, pp. 174-175. Printed in the United States of America.

(refer to Plate 2.3).⁵⁸

The core-housing scheme was such that a family, with little additional work, could immediately move into the core unit and thereafter expand the house as time and funds allowed. On the downside, however, the inhabitants might need to find interim alternative housing while the process of expansion was in progress, as it is not convenient to remain in the core house while building activities are taking place. As a result, funds might frequently be spent on putting up a temporary squatter hut or shelter. Moreover, the builder (or prospective inhabitant) might himself live miles away from the particular construction site. Despite these disadvantages, however, core houses had an important advantage in that they could be mass-produced on the site with considerable savings of money and raw materials, and this did not entail extensive supervision. It merely required a tract of land and the essential utilities, after which the core could be erected in one mass-operation. In fact, the main problem with the core housing approach was that it faced certain obstacles in areas where the costs of purchasing land were extremely high⁵⁹ but surely such core housing schemes tend to be constructed in areas where the land cost is particularly low.

⁵⁸Abrams C. (1964): *Man's Struggle for Shelter in an Urbanising World*. pp. 174-175. Printed in the United States of America.

⁵⁹ Abrams C. (1964) *Man's Struggle for Shelter in an Urbanising World*. Page 175-176. Printed in the United States of America.



Plate 2.3 An example of a core housing unit in Ghana, West Africa.

Source: Abrams C. (1964) *Man's Struggle for Shelter in an Urbanising World*.

2.6.3 Site and Service Housing Schemes in Developing Countries

The site and service housing scheme is yet another variant developed under the self-help and aided self-help housing programme. This approach to housing was quite popular in developing countries. Although it ultimately made only a small contribution towards the elimination of the vast low-income housing shortage, one can confidently say they established the principles of the division of labour and collaboration between the private and the public sectors.⁶⁰ The public sector undertook to provide, amongst others, building plots, access roads, water and sewerage while the private sector in charge of allocating the plots was responsible for constructing the houses themselves. In monetary terms, it was hoped that the public sector contribution would be as low as one tenth of the total. Thus, the limited public sector funds, in collaboration with assistance from the

⁶⁰ Koenigsberger, O. "Third World Housing Policies Since the 1950's" in *Habitat International*. (1986), vol. 10, no. 3 p. 30.

private sector, could thus produce ten times as many housing units as would have been the case with unilateral or exclusive public sector housing projects.⁶¹

The World Bank Organisation championed site and service housing schemes in developing countries.⁶² It closely scrutinised the basic economic theory of such schemes and compared them with other self-help housing schemes. As a result of extensive research in this field, the World Bank Organisation recognised / acknowledged that the provision of conventional permanent housing for all sectors of the population was not possible, given the limited resources available in most developing countries. They thus concluded that the only way that governments could provide a substantial quantity of housing was to decrease the supply costs. This would make housing and services accessible to a large part of the population, which was still presently excluded from the formal housing market.⁶³

In summary, an efficient and cost-effective housing programme should be designed from the standpoint of effective user demand, rather than from a preconceived notion of what might constitute 'adequate housing'.⁶⁴ Generally, World Bank funding of the urban sector was aimed at encouraging reforms in policies and institutions and providing technical assistance rather than merely transferring large amounts of money to developing countries. In order for the World Bank to evaluate project proposals and assist borrowers to develop housing policies and programmes, the following criteria were developed:

- The Government should limit its spending by providing services which families and communities cannot afford on their own. Examples of these services include city-wide planning and the construction of infrastructure.

⁶¹ Abrams, C. (1964) *Man's Struggle for Shelter in an Urbanising World*, pp. 176-177. Printed in the United States of America.

⁶² *The principal focus will be on the operation of the World Bank, which is currently the largest lender in this field.* Payne, G. (1984) *Low-Income Housing in the Developing World: The Role of International Agencies*, p.173. Printed by Pitman Press Ltd., Bath, Avon

⁶³ Nientied, P. and Linden J. "Approaches to Low-Income Housing in the Third World" in *International Journal of Urban and Regional Research*: (1985) vol. 9 Nos. 3-4, p. 319.

⁶⁴ Payne, G. (1984). *Low-Income Housing in the Developing World: The Role of International Agencies*,

- It is very important to identify the right target group. The group can be defined as those who are either in absolute or relative poverty, which is frequently from the bottom up to the 50th or even 70th percentile of all the city's income earners.
- It is very important that the programme should plan for cost recovery and affordability, particularly considering the fact that the financial resources available to the government for housing are limited and that the numbers of people needing assistance are extremely large. In order to achieve this, the beneficiary (potential inhabitant) of a housing unit must be able to afford the investment costs in the land and the infrastructure, so that the government will eventually be able to recover the costs incurred. "This applies where assets are transferred to private ownership, or are largely recovered from local taxes, such as when public services are provided to which specific private benefits cannot be assigned. This implies that site layouts and design standards should be extremely efficient and low service standards adopted in order to minimise cost"⁶⁵.
- Although the actual form of security of tenure will of necessity vary between countries, it is important to establish the degree and parameters of such tenure in the housing policy beforehand, as this would encourage the household and the community as a whole to improve their shelter.
- It is important to avoid running a programme that amounts to a waste of time, energy and money. To this end the institutional management and financial aspects of new settlements and the upgrading of old settlements ought to be designed in such a way that they can rapidly expand to the required scale in a reasonably short space of time. (This has been achieved in Jakarta for the existing residents of that city but it took 12 years).
- It is also necessary to structure institutional and management arrangements in such a way that over-centralization of operations is avoided. The aim throughout should be to maintain flexibility and initiative at the lower levels. Easy and open communication should be encouraged between all the relevant Government agencies

pp. 175-176. Printed by Pitman Press Ltd., Bath, Avon

⁶⁵ Payne, G. (1984). *Low-Income Housing in the Developing World: The Role of International Agencies*, pp. 175-176. Printed by Pitman Press Ltd., Bath, Avon

involved in developing and financing the programme and vertically within the relevant hierarchies.⁶⁶

The fact that this programme was well monitored and well researched by the World Bank only has made it possible for their successes and difficulties to be published. From the published results, it can be seen that such site and services projects were not quite as successful as their sponsors had hoped. Large as they were, they remained once-off projects and did not become part of a replicable nation-wide policy. Further, considering the fact that such programmes were insufficient and not widespread enough, they did not have the desired effect on the housing market. To further complicate the situation, the housing shortage was not only limited to the poor, but also included middle-income groups. This is because many of the so called subsidised plots of site and service projects ultimately failed to reach the poor for whom they had been intended; rather they ended up in the financially stronger lower middle-class market. The poor were thus driven to create their own 'self-help schemes' in the form of squatting.⁶⁷

2.6.4 Self-Help Housing by John Turner

A major protagonist of the self-help housing model was the British architect John Turner. His ideas were based on his observations of autonomous settlements in Latin America, where illegal and informal dwellers in fact controlled large parts of the housing process. As these settlements were illegal, the government considered their inhabitants to be squatters, and thus they often demolished these self-built squatter settlements, either with or without attempts to re-house them elsewhere. Turner recognised that such threats by the government limited what squatters dared to invest in their self-built houses; in other words, they did not make an effort to beautify their houses or their surroundings, because it was likely that their houses would be demolished. Turner proposed that instead of threatening the existing housing systems,

⁶⁶ Payne, G. (1984). *Low-Income Housing in the Developing World: The Role of International Agencies*, pp. 175-177. Printed by Pitman Press Ltd., Bath, Avon

⁶⁷ Koenigsberger, O. "Third World Housing Policies Since the 1950's" in: *Habitat International*. (1986), vol. 10. no. 3, p.30.

the government should respect and support them. He considered his main task to be to convince governments that there were better solutions to the low-income housing problem than the ones applied thus far. The solutions he proposes benefit both low-income earners and governments. His key ideas can be summarised as follows:

- the concept of 'housing' should be viewed as a verb, rather than a noun: housing is not just a shelter, it is a process, an activity⁶⁸;
- therefore, the house should not be seen simply in terms of its physical characteristic ('what it is'), but in terms of its meaning to those who use it ('what it does'). By implication, the material value of housing should be substituted with human use values, of which the material value is only one amongst many indicators⁶⁹ and,
- housing is a commodity that needs change. This may be due to the family cycle or stages in the migrant's life in the city. There is an endless variety of individual needs, priorities and possibilities among different users. Large organisations, such as the state or municipality, can never adequately cater for all these, but always have to standardise procedures and products and thus fail to respond adequately to the majority of the individual changing needs and priorities. In other words the main components of the housing process have to be left to the individual users. This does not necessarily imply that dwellers should build their own houses, but merely that they ought to be given the right to make certain decisions in relation to housing, either as individuals or via decentralised local institutions.

All these strategies however do not eliminate the role of the government, neither at the municipal nor at the national level. Only the government can enable users to become involved in housing activities, e.g. planning, organising, building and maintenance. Firstly, certain elements such as road or sewage treatment plants obviously cannot and should not be planned, built and maintained by the community, let alone individually.

⁶⁸ Turner J. and Fichter R. (1972). *Freedom to Build: Housing as a verb*, pp 151. and Nientied, P. and Linden J. "Approaches to Low-Income Housing in the Third World" in *International Journal of Urban and Regional Research*: (1985) vol. 9 no. 3-4, p. 312

⁶⁹Ward, P. (1982).: *Self-Help Housing : A Critique* in: *Self-Help Housing*. Page. 58. and Nientied, P. and Linden J. "Approaches to Low-Income Housing in the Third World" in *International Journal of Urban and Regional Research*: (1985) vol. 9 no. 3-4, p. 312.

Secondly, the government has to formulate the proscriptive laws that define the limits of what people and local institutions may do (rather than prescriptive laws that tell them what they should do).⁷⁰ Thirdly, the government has to provide, and actively protect, access to the elements of the housing process for the users. These elements include land, laws, building materials, tools, credit and technical know-how.⁷¹

The housing scheme advocated by John Turner alongside those proposed by the World Bank and the United Nations Missions fall under the common umbrella referred to as the Self-Help and Aided-Self Help housing schemes. They seem to have a lot in common, in terms of the fundamental concepts these schemes are based upon, even though they have different names as well as different approaches. Firstly, the perception that housing is a commodity that requires changes (in terms of size and quality) due to certain groups of factors is common to all three. A second common factor is the belief that the governments of developing countries ought to provide, and actively protect, access to the elements of the housing process for users. Some of these elements include land, laws and building materials. A third common idea is that the responsibilities involved in the provision of housing should be shared between the government and the private sector. Fourthly, they all share the belief that the occupant of houses (the users) should of necessity participate in the design and construction of their houses. It is thus primarily in their implementation that the three approaches differ from one another.

2.6.5 Critique of Turner's Self-help Housing

Criticism of these three approaches to the housing shortage comes from various quarters. In particular, the work of John Turner was criticised by the academic Rod Burgess. Burgess argues that there are considerable problems of confusion and contradiction in Turner's presentation. Firstly, Turner's concept of housing falsely equates 'product' and 'commodity' with each other (i.e. commodity status is seen purely in material terms).

⁷⁰ Turner, J. and Fichter, R. (1972). *Freedom to build: Housing as a verb*, pp 140-150. Printed in UK. See also Nientied, P. and Linden J. "Approaches to Low-Income Housing in the Third World" in *International Journal of Urban and Regional Research*: (1985) vol. 9 no. 3-4, p. 312.

⁷¹ Nientied, P. and Linden J. "Approaches to Low-Income Housing in the Third World" in *International*

Secondly, Turner's identification of the housing process or activity with use-value or utility is one-sided. Thirdly, confusion seems to exist over the relationship between the material quantities of a dwelling and its market value. However, in Burgess' view Turner's error can be isolated in two areas:

- in the misunderstanding of the relationship between utility (use-value) and market value (exchange value), and,
- in the denial of commodity status to 'self help' (or, as it has more recently been called, 'dweller-controlled') housing.⁷²

As Burgess puts it, Turner's error is that he equates use-value with total utility and that he identifies market value as the ratio of exchange. In classical economics the concept of 'need' is identified with the concept of 'demand' through such notions as 'revealed preference'.⁷³ From the above, Turner's track is somewhat different, for he has tried to show that use-value versus market value is a functional relationship while it is in fact a dysfunctional one. Due to the fact that the market value of a house cannot be an adequate measure of use-value, it thus follows that self-help construction will produce better houses than the market because the users are the best judges.

Secondly, Burgess says it is not surprising that Turner does not accept that self-help housing is a commodity, as appears from the way in which he relates use-value and market value of self-help housing. Contrary to Turner's opinion, Burgess believes the question, whether or not self-help housing is a commodity can be best answered if referred back to Karl Marx's analysis of the relationship between exchange value and use-value.

"The commodity is the direct unity of use and exchange value... The commodity is a use-value, but as a commodity it is simultaneously not a use-value. It would not be a

Journal of Urban and Regional Research: (1985) vol. 9 no. 3-4, pp.312-319.

⁷² Ward, M. (1982). *Self-Help Housing: Self-help Housing Advocacy: A Curious Form of Radicalism*, p.60. Mansell Publishing Limited

⁷³ *In classical economics the concept of 'need' is identified with the concept of 'demand' through such notions as 'revealed preference' which, as Havey has remarked, 'simply allow that people behave in the way they behave' Havey, 1973:157*. Ward, M. (1982). *Self-Help Housing: Self-help Housing Advocacy: A*

commodity, if it were a use-value for its owner, that is a direct means for the satisfaction of his own needs ... The commodity is a use-value for its owner only insofar as it is an exchange value. The commodity therefore still has to become a use-value... a use-value for others."⁷⁴

In summary, it is asserted that Turner's concept of housing does not consider the following:

- the transformation of the self-help house into the commodity form by the producer himself;
- the fact that one man's use-value can be another man's exchange-value and vice versa, and,
- that a self-help house can be a very different commodity to the various interest groups operating in the broader urban market.⁷⁵

2.6.6 The Self-Help Housing Scheme in South Africa

Despite such criticism, the Self-Help housing approach has continued to be adopted by various governments. In South Africa the Urban Foundation (UF) started as a non-profit and non-political organisation in the mid-1970's with the intention of promoting the improvement of the quality of life primarily in African communities. The UF assisted the South African National Party in restructuring its housing policy at the time when housing under the apartheid system was experiencing a crisis. The "explicit objective of Urban Foundation was to facilitate the emergence, particularly in the African townships, of stable communities of home-owning families, which would constitute the nucleus of an incipient 'property-owning democracy.'⁷⁶ To this end, it aggressively promoted Self-Help as an effective approach to the provision of housing, specifically to address the

Curious Form of Radicalism, p.59. Mansell Publishing Limited

⁷⁴ Ward, M. (1982). *Self-Help Housing: Self-help Housing Advocacy: A Curious Form of Radicalism*, p.60. Mansell Publishing Limited

⁷⁵ Ward, M. (1982). *Self-Help Housing: Self-help Housing Advocacy: A Curious Form of Radicalism*. p. 61 Mansell Publishing Limited

⁷⁶ Wilkinson, P. "Housing Policy in South Africa" in: *Habitat International* (1998) vol., no. 3, p. 222.

large and growing backlog in supply associated with the deliberate manipulation of the 'township system' of mass provision of public rental housing to achieve the objectives of total apartheid. The UF further persuaded the government in 1978 to reinstate the 99-years leasehold rights for 'qualified' urban Africans that it had withdrawn two years ago. The UF believed this to be a very important precondition that must be fulfilled for the 'Self-Help' approach to succeed.⁷⁷

This period also witnessed the withdrawal of the state from its total monopoly on the provision of housing for African and Coloured people in the urban areas. There was the sale of public rental stock, launched in townships in 1983. However, it was obvious that this policy recorded only limited success and it failed to bring the supply of housing in line with the level of demand existing in a rapidly growing urban population. This was evident in the appearance of middle class suburbs in some Coloured and Indian townships, as well as in the larger African townships. It is suggested that the reasons for such failure to supply sufficient housing are the following:

- the failure of policy makers to grasp the dynamics of housing needed within the 'target' population. Therefore there was a constraints with configuring the 'demand side' and,
- most importantly among the latter was the disjunction between 'real' and effective demand for housing. This could have been anticipated in any market economy with an extremely high rate of structural unemployment associated with widespread poverty.⁷⁸

Attempts by the government to regulate the process of African urbanisation failed, which led to an explosive growth of informal settlements. Policy debates began to focus on what role the state, the private sector and the recipient populations should play in

⁷⁷ "As an essential precondition for 'Self-Help' approach to succeed --- in line with the internationally accepted conventional wisdom that this was based on establishing some sense of 'Homeownership'- the UF further persuaded the government, in 1978, to reinstate the 99-year leasehold rights for 'qualified' urban Africans that it had withdrawn two decades before". Wilkinson, P. "Housing Policy in South Africa" in: *Habitat International* (1998), vol., no. 3. p. 222.

⁷⁸ Nientied, P. and Linden, J. "Approaches to Low-Income Housing in the Third World" in *International*

addressing the housing shortage. The result was an attempt to solve the housing problem through the establishment of parastatal agencies like the South African Housing Trust and the Independent Development Trust (IDT) in 1987 and 1990 respectively. The IDT approach represented a significant effort to increase access to housing through the rapid provision 'at scale' of some 100,000 serviced sites.

This was in contrast to the assumption made in the 1980's that it would be possible for a substantial number of potential homeowners to acquire 'proper' or 'formal' houses through market-driven processes. The IDT scheme recognised that the large majority of African households would only be able to obtain such housing on an incremental basis over a fairly extended period of time. Meanwhile the prospective builder lives in a shack or some other informal accommodation. However, it was understood that the process of consolidation (replacement of a shack by a formal structure) would be undertaken by households using their own financial resources or 'sweat equity' (direct labour). In order to encourage prospective homeowners, the scheme provides for the initial acquisition of serviced sites through once-off capital grants of R7,500 per site. The objective of this scheme was for each family to have a house of its own, however modest or incomplete a 'formal' structure, for each household, situated on its own plot in a planned township.⁷⁹

2.7 Loans and the Savings Driven Delivery System

The loans and savings driven delivery system is a recent housing scheme approach in Cape Town, having been proposed in 1998 by the Executive Committee of the Cape Town Housing Authority. Coincidentally, it happens to be the current housing delivery system on the international housing scene as well.⁸⁰ This scheme is built upon a relationship between the local authority, the private sector and the beneficiary community. The relationship is based upon the recognition of a mutual need and support of each of the parties. The policy was adopted to correct the administrative problems as

Journal of Urban and Regional Research. (1985), vol. 9, no. 3-4 p. 312.

⁷⁹ Nientied, P. and Linden, J. (1985). "Approaches to Low-Income Housing in the Third World" in *International Journal of Urban and Regional Research*. vol. 9, no. 3-4.

⁸⁰ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape

well as those other problems existing in the previously implemented housing programmes. Furthermore, as with self-help housing, it gives the beneficiary the right to decision-making in terms of the provision of housing. Finally, it was proposed to move away from the subsidy-only delivery by introducing some new elements, namely:

- a capital subsidy;
- a municipal financial contribution;
- domestic savings; and
- micro-credit⁸¹.

The operational system of the housing policy was quite simple. In order to access a municipal subvention, the potential beneficiaries had to meet certain savings requirements⁸².

As this is the most current housing provision scheme, an in-depth discussion is necessary. The different elements of this model as well as the roles and the responsibility of other parties involved will thus be examined and discussed hereunder.

2.7.1 Municipal Subvention

In order for this programme to succeed, the city (in this case Cape Town) must make available a capital sum of money to augment the National Housing Subsidy. This should take the form of a subvention in respect of some cost for land and services, openly visible on the budget. In addition it was recommended that this commitment should be provided for a minimum of five years at a time, meaning that every year Cape Town City should signal its intent for a further five years. This assistance would encourage interested beneficiaries, as it would create the necessary co-operative climate in the housing environment. It is also considered that this will allow for a positive response

Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸¹ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸² South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape

from the private sector and from those prospective beneficiary communities that are not fortunate enough to gain access to the subvention in the first year or two.

It was suggested that the city should make different amounts available for specific housing projects. Historically bad practice, hidden subsidies and separate deals have been responsible for great distortions in the pricing of serviced sites on the Cape Flats in general. It is considered that this would also help to smooth out these problems and achieve an affordable and uniform residual amount for the actual construction of the houses.

Finally, certain steps were proposed for the proper and successful implementation of this housing programme. One of these steps is that the city should make the subvention available to prospective beneficiaries on a conditional basis. They will qualify by means of establishing a specified savings record, and maintain the value of the subvention through a hundred percent payment record in respect of the Community Charge 'rates' for a specified period of at least four years. It is important that if the qualifying beneficiary does not meet the savings or payment criteria, then there will be no contribution from the city: this condition is not negotiable.

2.7.2 Savings

The generation of a Savings Driven-System is believed to be of key importance to the success of low cost housing generally. The prospective beneficiaries would be expected by the Cape Town City Council to build up a savings track record with an accredited financial institution for a period of twelve months. To set the wheels in motion for the delivery of funds, it is suggested that the first projects be accepted on the basis of a six months savings record. Accreditation would be limited to those financial institutions that are prepared to match a set of criteria that will initially be jointly determined by the Cape Town City Council and the National Housing Finance Corporation. A Special

Purpose Vehicle (SPV) will eventually administer this as soon as it is operative⁸³.

It is important that the savings be limited for use in conjunction with the institutional subsidy, the subvention and, where appropriate, with credit. Immediately the prospective beneficiary has met the savings requirement, he or she would be allocated a site for the project where the subvention is available. The beneficiary will be denied access to his or her savings until the end of the four-year minimum period. The savings would cover any shortfall in payment during that period. At the end of this period, the savings along with the interest accrued in the meantime, would be returned with the title deed to the beneficiary⁸⁴.

The City was advised to create a competitive environment in this field so that the prospective beneficiary would attract the best possible rates for their money, irrespective of whether they ultimately obtained municipal assistance or not⁸⁵.

2.7.3 Savings and Credit

The success of this housing scheme will firstly be directly related to the extent to which the City manages to attract financial institutions to provide credit against the savings patterns of the beneficiaries. Secondly, it will depend on individual applicants employing a savings-based approach that will demonstrate their capacity to afford and repay credit⁸⁶.

Under such a savings and credit scheme a savings track record of a specified period would enable the applicant to obtain a micro-loan on the condition that the savings account is ceded to the City to provide the first layer of risk against the loan. For the credit programme to be functional, mortgage-based credit was viewed as inappropriate.

⁸³ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸⁴ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸⁵ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸⁶ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

The programme rather looked at the provision of micro-loans of less than R7, 000, repayable over shorter maturity periods of three to four years. The result of this approach was a combination of the following:

- the R17, 250 state subsidy, with
- the municipal subvention of approximately R5,000;
- the twelve months savings of approximately R450;
- a micro-loan of about R3,000 to create a package or product worth approximately R25,000.⁸⁷

On completing the first four-year cycle, the beneficiary would be able to use his or her four-year track record, plus the under-lying security of the property. Thereafter, the purpose is to further improve the property by renewed access to further credit. Otherwise, the property could be improved as the new owner's financial condition permits. The advantages are that the city would not only be involved in ensuring a better quality of housing for its residents, but would also do so on the basis of the verification of hundred percent payment of rates and services⁸⁸.

2.7.4 The Institutional Framework

According to a write-up by the Cape Town City Council to the Executive Committee in 1998, the 1997 Housing Policy had a chaotic framework. It contained roles that were poorly defined and delineated, if at all, and there existed substantial areas of overlap and confusion. These factors can be said to have contributed to the poor housing situation. Consequently, the new housing programme attempts to clarify the roles of the different parties in this delivery model. This ensured that adequate precautions are taken to prevent confusion from arising again.

⁸⁷ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

⁸⁸ South Africa (Cape Town) A Report Proposal (proposed low-income housing delivery model for Cape Town) by the Executive Committee to the Cape City Council. Dated 1998-06-25

The Council's role was to deal with all political matters. For example, the Council would deal with political issues like "determining a set of criteria for the prioritisation of projects, and explaining as well as popularising such criteria."⁸⁹ The Special Purpose Vehicle (SPV) is incorporated, as a private company while its role would be divided into two broad functional groups. Firstly, it would be responsible for the most rapid and cost-efficient construction of the affordable housing stock, while the second broad functional area for the SPV would be to hold the stock mentioned above for 48 months, as stated in the rules that govern the institutional subsidy.⁹⁰

The Victoria Mxenge Housing Project in Cape Town is an example of the application of this housing financial model. This particular project is still under assessment, as it is controversial due to the geo-technical problems resulting from unsuitable fill on the site. These houses - nearly 300 in number - have been built by members of the Victoria Mxenge Housing Development Association, which falls under the umbrella of the South African Homeless People's Federation. It was formed in 1992 for the purpose of enabling people to pool resources to house themselves.⁹¹

This scheme operates through funds made available by the government under the uTshani Fund. The uTshani Fund Governing Board comprises representatives from the nine regions in Western Cape. At present any Housing Saving Scheme is eligible to apply for an uTshani Fund loan. Such loans are made available to collective members of the Housing Saving Scheme. As soon as the monthly repayment of each member has been determined, the staff of uTshani Fund determines the total amount, which can be borrowed over a 15-year period at a simple interest rate of 1% per month.⁹²

⁸⁹ The above information as a whole is from (Cape Town) A report proposal on low-income housing delivery model for Cape Town by the Executive Committee to the Cape Town City Council. Dated 1998-06-25.

⁹⁰ The above information as a whole is from (Cape Town) A report proposal on low-income housing delivery model for Cape Town by the Executive committee to the Cape Town City Council. Dated 1998-06-25.

⁹¹ [Http://www.dialogue.org.za/pd/index.htm](http://www.dialogue.org.za/pd/index.htm). [2000, September 21]

⁹² [Http://www.dialogue.org.za/pd/new_international.htm](http://www.dialogue.org.za/pd/new_international.htm). [2000, September 21]

The success of this particular housing scheme and financial model needs to be carefully assessed, considering that it has only recently been applied in South Africa.

2.8 Conclusion

The historical study of housing policies implemented in South Africa and in other developing countries reveal more similarities than disparities. The housing dilemma (resulting primarily from rapid urbanisation) appears to be a common phenomenon in both contexts. These problems have led to the implementation of similar housing policies common to South Africa and developing countries, even though they have turned out to be ineffective. Most probably those housing policies practised in developing countries could have been influenced by some policies that were adopted in South Africa. Examples of these housing policies include *inter alia* the Employment Housing Scheme, Squatter Clearance, and Pre-fabricated Mass Housing in the form of walk-up apartments. By and large the shortcomings of these various sets of housing policies were not very different, irrespective of wherever they were implemented.

The most striking disparity between the two contexts in question is evident in the case of South Africa where the formulation of housing policies was based on segregationist laws during the Apartheid era.⁹³ The reverse was the case in other developing countries where the formulation of housing policies was demand-driven. Although the Apartheid housing policy in South Africa experienced a crisis and witnessed a gradual collapse after the Apartheid era, low-income housing schemes are still segregated on the periphery of the city. This is due to the legacy of Apartheid, coupled with the fact that land is cheap and therefore affordable for low-income development on the periphery of the city. Recently completed examples of such housing projects exist in Delft and Oceanview. This practice of housing low-income earners on the periphery has continuously encouraged

⁹³ Cape Town City Council. (1989). Cape Town City Council involvement in providing housing for it's present citizens pages 1-6 and also Wilkinson, P. (1998) Housing Policy in South Africa in: *Habitat International*. Vol.22, Nos. 3 pp. 215-219 and Willem van Vliet. (1990). *International Handbook of Housing Policies and Practices: South Africa*, pp. 588-589. Printed by Greenwood Press, New York.

the development of urban sprawl in the city of Cape Town, and would, in addition, be an obstacle to compacting and integrating Cape Town City.

Generally the provision of low-income housing by the State has become so unpopular that its existence was ignored. Before the advent of this, the provision of low-income, high-rise apartments in Cape Town was wholly the duty and responsibility of the City Council.⁹⁴ Some examples of such low-income, high rise residential apartments are found in Elsie's River, Heideveld, Manenberg, Lavender Hill, Parkwood and Hanover Park, to mention a few.⁹⁵ However, similar problems were responsible for the unpopularity of low-income housing provided by the State. These reasons include *inter alia* limited resources persisting within the government sector with regards to the budget for housing, lack of personnel and corrupt administrative practices.⁹⁶ All these aforementioned factors still serve as obstacles to the provision of housing by the state.

Due to the problem of limited resources persisting within the state sector with regards to the budget for housing, attempts have been made to reduce the cost of providing housing and in turn increase the number of units produced. When this new concept was finalised into a working policy, it was manifested in various forms of Self-Help housing schemes with houses that are very small and cannot be furnished. The various Self-Help housing programmes include approaches such as "site and service", "core housing", "instalment construction" and "aided self-help". Throughout, the exclusion of the processes of consolidation and densification has continued to reinforce a sprawling development.

⁹⁴ Mayor's minutes on housing Cape Town City Council and the Cape Town City Council involvement in providing housing for it's poorest citizens: (1993) A history of the various branches of the City Engineer's and City Planner's departments that have been involved, pp. 5-9.

⁹⁵ MA&E (1981) The Journal of the Local Government of South Africa Municipal Area. Redeveloping Elsie's River, page 24 and the Cape Town City Council Involvement in Providing Housing for it's Poorest Citizens: (1993) A History of the various Branches of the City Engineer's and City Planner's Departments that have been involved, p. 4.

⁹⁶ Finance for Housing Community Facilities in Developing Countries. United Nations, New York 1968, pp. 9-15 and Wilkinson, P. (1998). Housing Policy in South Africa in: *Habitat International* Vol. 22, Nos. 3, p. 221. and for the international housing scenario Abrams C. (1964) Man's Struggle for Shelter in an Urban World, pp. 79, 142-143. Printed in the United States of America.

The Self-Help, Aided Self-Help and the loans and savings schemes are limited in terms of providing low-income medium-density housing. They can only be implemented as single dwelling units for one family because of the limited experience of the builders. Secondly, these schemes have facilitated the conversion of governments of developing countries and in South African from being a provider to a facilitator in the provision of low-income housing. Invariably, housing is no longer used as a tool for city-making; rather it is increasingly viewed as the provision of single storey dwelling units alone, a process which is facilitated by the sub-division of land into small sized plots. Thirdly, the slow process of construction dependent on the availability of funds and labour versus the keenness of beneficiaries to begin dwelling in these units further limits the option of vertical expansion.

The aforementioned factors have entrenched urban sprawl in Cape Town through the provision of suburban housing in an essentially urban area. The questions that come to mind therefore are: Can the predominant provision of suburban housing in an urban area result in effective management of resources? If not, can urban housing be the solution to this problem? The next chapter demonstrates the need to review the sprawling development with housing as a tool to achieving this goal.

CHAPTER THREE

3.0 THE NEED FOR ALTERNATIVES TO CONVENTIONAL TOWNSHIP DEVELOPMENT

3.1 Introduction

Over the years, the concept of town planning has gradually shifted its priority from an emphasis on aesthetics to a more functional approach, which concerns order, scale and generosity.⁹⁷ This changing trend dates back to before the advent of the Garden City idea to modern day planning principles. These planning ideas were initiated and implemented in response to the crucial pressures of our time, the purpose of which was to achieve a well-designed environment. One of the fundamental pressures of this age is rapid urbanisation, and the quest to absorb the increasing population into the urban centres has given rise to planning concepts whose implementation has unfortunately resulted in other problems. Some of these planning problems are caused by the predominant housing patterns provided, coupled with the planning concept applied specifically in fast growing urban centres.⁹⁸ It is as a result of these problems and the need to solve these problems that this research will attempt to suggest an alternative to the conventional township developmental model.

However, it is only proper that before there can be an alternative suggestion to any issue, there is a need to understand the existing trends or patterns of development of the issue in question. Accordingly, this chapter intends to determine the predominant housing type applied in Cape Town as well as the structure and form of the City. For the purpose of this study, and as will be explained hereunder, the research has been carried out in and limited to the Cape Town Metropolitan Area.

⁹⁷ Uytenbogaardt, R. and Dewar, D. (1995). *Creating Urban Places to Live: A Primer*.

⁹⁸ Mills G. "Housing in South Africa: Linking Form to Delivery Process" in: *Urban Forum*, (1993), vol. 4: no. 2, pp. 55-57.

3.2 The Study Area

The Greater Cape Metropolitan Area, located within the territory of the Western Cape Province, is a region bounded by the Atlantic Ocean in the west, False Bay in the south, the Hottentots Holland/Drakenstein Mountains in the east and the Winelands in the north. The area can be divided into two separate planning parts: the inner metropolitan area and the outer metropolitan area. The outer region is made up of towns such as Paarl, Wellington, Stellenbosch, Somerset West, Strand and Gordon's Bay, including Atlantis and the Helderberg Basin. The inner metropolitan area houses the bulk of the population and generates the most economic activity. This area is made up of the densely populated area of central Cape Town, Bellville, the Cape Flats and the Metro Southeast area.⁹⁹ For the sake of clarity the inner metropolitan area can be divided into the following eight distinctive sub-areas:

- **The City Bowl and Atlantic Coast:** This area is dominated by Table Mountain and Table Bay, (contains the Central Business District of Cape Town and is a highly built-up / densely populated area);
- **Southern Arm:** This developed along transportation routes (the railway line and the main road) and comprises diverse functions - housing, commerce, industry, cultural and recreational amenities;
- **Tygerberg Arm:** This is similar to the Southern Arm, having also developed along transportation routes (Voortrekker Road and the railway line) towards Bellville and Kuilsriver;
- **Cape Flats:** This is predominantly a lower-middle income area with medium to low-density sprawl;
- **Metro Southeast:** This area has been recently urbanised with little employment opportunities as well as little opportunities for commerce and amenities. Suburbs /

⁹⁹ Khan, D. M. (1997) Case Study Cape Town, Planning and Design in the 1990's, p. 7 see also Cape Metropolitan Area Interim Metropolitan Framework. (1993) The Way forward: Draft Report for Discussion. p. 4-17. Cape Metropolitan Council. (1996) Metropolitan Spatial Development Framework: A Guide for Spatial Development in the Cape Metropolitan Functional Region. p. ix

settlements which fall under this area are Blue Downs, Khayelitsha and Mitchell's Plain;

- **Southern Peninsula:** This fairly large area which extends from Hout Bay to Constantia to Cape Point, has experienced limited residential development because of topographical constraints. The exception is the main road, which extends intermittently from Muizenberg all the way to Simon's Town;
- **Northern Arm:** This includes residential developments in the areas of Table View, Bothasig and Milnerton, being suburbs which have developed along Koeberg Road and the Atlantis rail link; and,
- **Northeast Sector:** The prominent settlements within this region are Durbanville, Kraaifontein and Brackenfell (refer to Diagram 3.1)¹⁰⁰.

3.3 The Structure and Form of Metropolitan Cape Town

Obviously, certain factors such as population increases, finance, the need for agricultural land and general town planning ideas must have influenced the structure and form of Cape Town.¹⁰¹ This chapter will however, look only at the related issues of housing patterns and how these affect our built environment and society, both economically and socially.

The structural pattern of the city has been influenced by two planning ideas in addition to the dominant influence of the motor car on town planning.¹⁰² These are the Neighbourhood Unit and the Garden City Models imported from America and Britain respectively. These ideas emerged in both countries as a result of rapid population growth in the cities, which resulted in equally rapid urbanisation. The implementation of these planning ideas in Europe and America resulted in problems, which were not too different from the planning problems they caused in South Africa wherever they were applied. However, these ideas were not borrowed as a result of their popularity, but because they

¹⁰⁰ Khan, D. M. (1997) Case Study: Cape Town Planning and Design in the 1990's, p.7

¹⁰¹ Dewar, D. (1990). The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance. The Urban Problem Research Unit. The University of Cape Town.

¹⁰² Dewar, D. (1990). The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and

offered potential solutions to the local environmental problems and the housing crisis experienced at this time in South African cities in general, and in Cape Town more specifically.¹⁰³

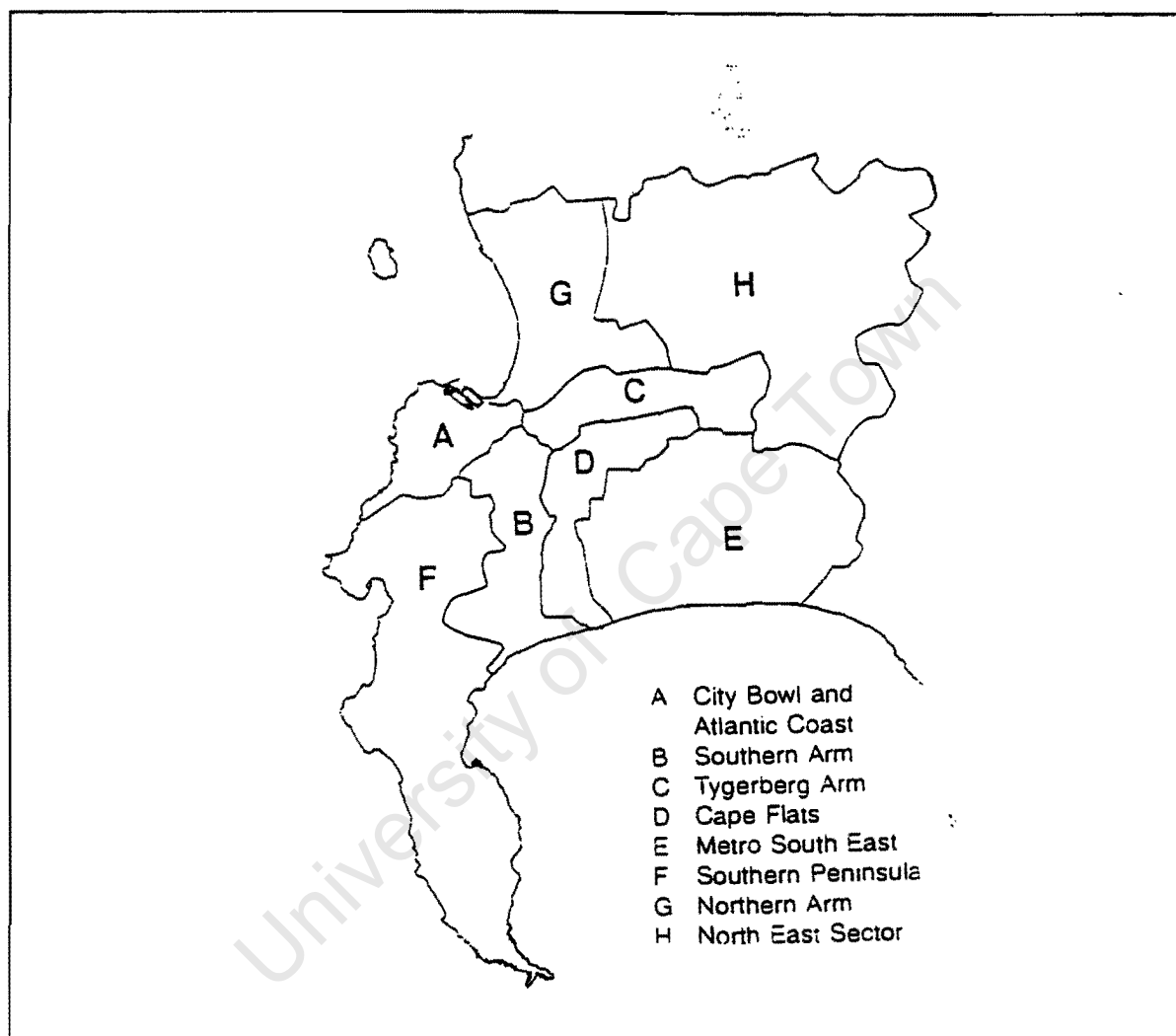


Diagram 3.1 Sub areas of the inner Cape Metropolitan Region.

Source: Metropolitan spatial development framework. Fig. 2.3

These planning models were portrayed as a device for creating a new regionalist consciousness, which would maintain and foster a particularly rich human culture as well

Performance, p. 73.

¹⁰³ Dewar, D. (1990). *The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance*. The Urban Problem Research Unit. The University of Cape Town, p. 33.

as offering a home to every type of character. The Neighbourhood Unit Model was proposed for the spatial organisation of residential environments. Later, regionalism and the Neighbourhood Unit Model were paired up, this offered very specific possibilities for physically reinforcing the South African pattern of apartheid-based urban segregation of racial and ethnic areas. On the level of the individual housing unit, to emphasise these differences even further, different minimum standards were stipulated for different races and ethnic groups.¹⁰⁴

The Garden City concept and Neighbourhood Unit Model have certain common characteristics. They are both low-density developments with large expanses of open space and localised public facilities. The road network in the Neighbourhood Unit Model is fairly open with curvilinear street patterns and enclosing arterial routes. These road layouts are designed to protect neighbourhood schools and parks from heavy traffic. This is achieved by confining through-traffic to arterial routes on the periphery of the unit, by increasing the width and capacity of the bordering arterial routes, as well as reducing the width of the internal roads. Furthermore, the width of the internal roads is decreased and is characterised by a curvilinear road alignment.¹⁰⁵ Unlike other inward-orientated amenities such as schools and parks, other facilities like shops and services are located at traffic intersections adjacent to other neighbourhood units and thus tend to be supported by residents of more than one neighbourhood unit (refer to Diagram 3.2).¹⁰⁶

¹⁰⁴ Japha, D. (1993). *The Social Programme of the South African Modern Movement in Blank-Architecture Apartheid and after*. Nai Publishers.

¹⁰⁵ Behrens, R. and Watson, V. (1996). *Making Urban Places*, Urban Problem Research Unit. The University of Cape Town, Cape Town.

¹⁰⁶ Behrens, R. and Watson, V. (1996). *Making Urban Places*, Urban Problem Research Unit, The University of Cape Town, Cape Town.

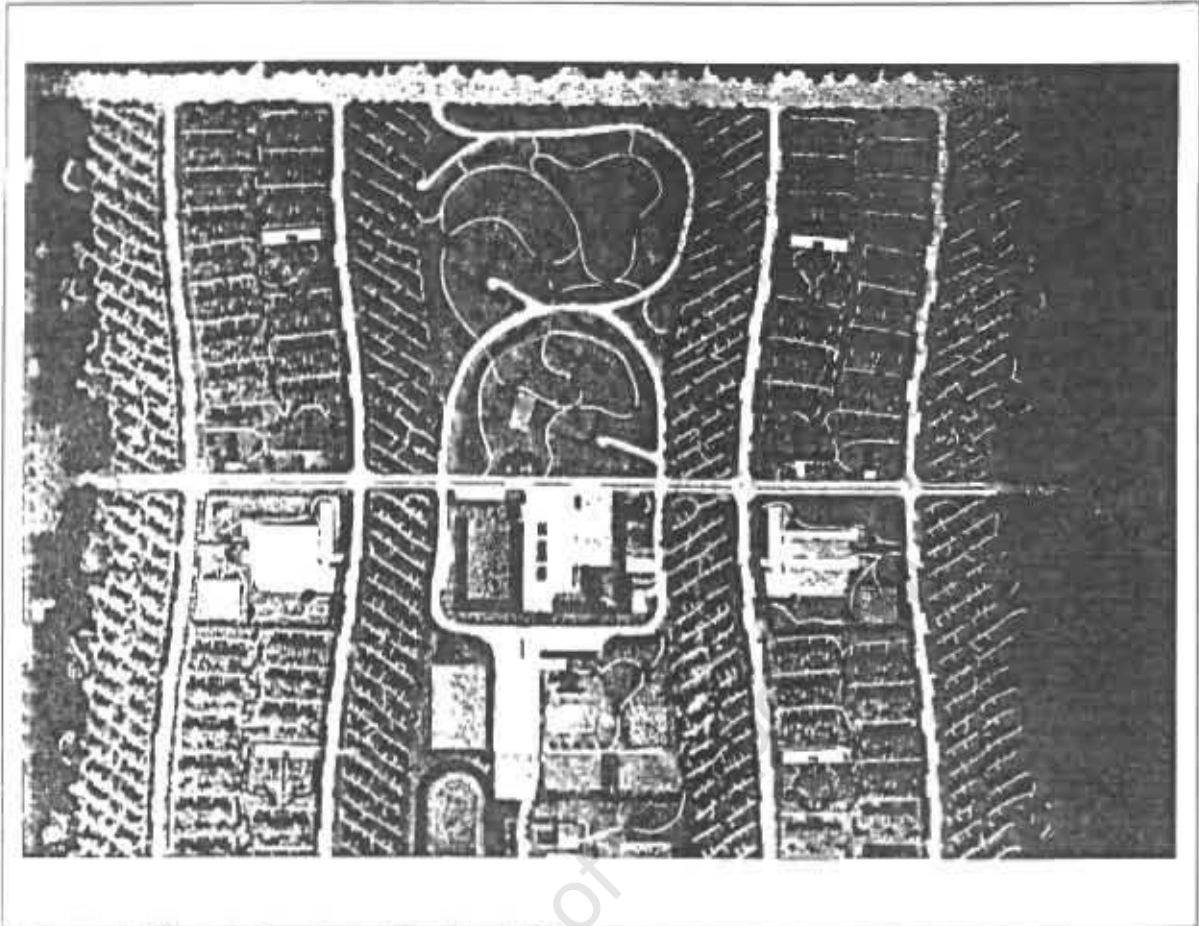


Diagram 3.2 Plan of a Neighbourhood Unit, 1939.

Source: Japha, D. (1993). *The Social Programme of the South African Modern Movement in Black Architecture Apartheid and after*. Naai Publishers.

The Garden City concept, which was originally promoted by Ebenezer Howard, comprised of core public buildings located around a centrally orientated park and schools with residential wards. This concept was also characterised by separation of incompatible land uses, namely the zoning of certain parts of town. For example, industrial areas or work places such as factories were separated from residential areas¹⁰⁷.

Due to the adoption of the two aforementioned general planning models, Cape Town is characterised by a dispersed pattern and extended structural development. Although it is not the intention of the research to carry out studies on the effect of 'buffer zones' created

¹⁰⁷ Behrens, R. and Watson, V. (1996). *Making Urban Places*. Urban Problem Research Unit. The

to fulfil the planning laws during the apartheid era, the existence of these buffer zones cannot be ignored.¹⁰⁸ Within the city, people are residentially segregated according to race and social status, furthermore industrial and commercial land uses are separated. These residential developments occur along isolated pockets.¹⁰⁹ The overall pattern of areas like Hanover Park (refer to Diagram 3.3a and 3.3b), Heideveld, Manenberg, Bonteheuwel, Delft-Eindhoven and Guguletu, to mention only a few, were primarily influenced by the Neighbourhood Unit concept of planning. These pockets of development operating in relative isolation are linked or serviced by freeways, which divide rather than integrate the adjoining areas. This has made access by foot and public transport to areas of shopping and work very difficult.¹¹⁰

In contrast to the suburbs discussed above, the planning concept applied in townships such as Nyanga is quite different. Nyanga is said to have an unclear integrating planning concept, apart from the fact that it is organised around two major cross streets, viz. Sithandatu Avenue and Ntlangano Road. Originally the layout of Nyanga was based on a rationalised grid system. The level of infrastructure is very low in these areas, largely due to a lack of funding (refer to Diagram 3.4).¹¹¹

University of Cape Town, Cape Town.

¹⁰⁸ Dewar, D. and Watson, V. (1990) The issue of the size and growth of the Cape Town. The Urban Problem Research Unit. The University of Cape Town, pp 19-20 and Dewar, D. (1990), *The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance*, p XI.

¹⁰⁹ Khan, D. M. (1997), *Case Study Cape Town: Planning and Design in the 1990's*, p 10. See also Dewar, D. (1990) *The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance*, p 41.

¹¹⁰ Khan, D. M. (1997), *Case Study: Cape Town Planning and Design in the 1990's*, p. 10. Dewar, D. et al (1990) *The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance*. The Urban Problem Research Unit. The University of Cape Town, pp. x-xi and 75 and Awotona, A. et al (1995) *Townships in Cape Town: Case Study Area Profiles*, Working Paper no.9 pp. 1-5 and 5-5.

¹¹¹ Awotona, et al (1995) *Township in Cape Town: Case Study Area Profiles*, Working Paper no. 9, p. 2-15.

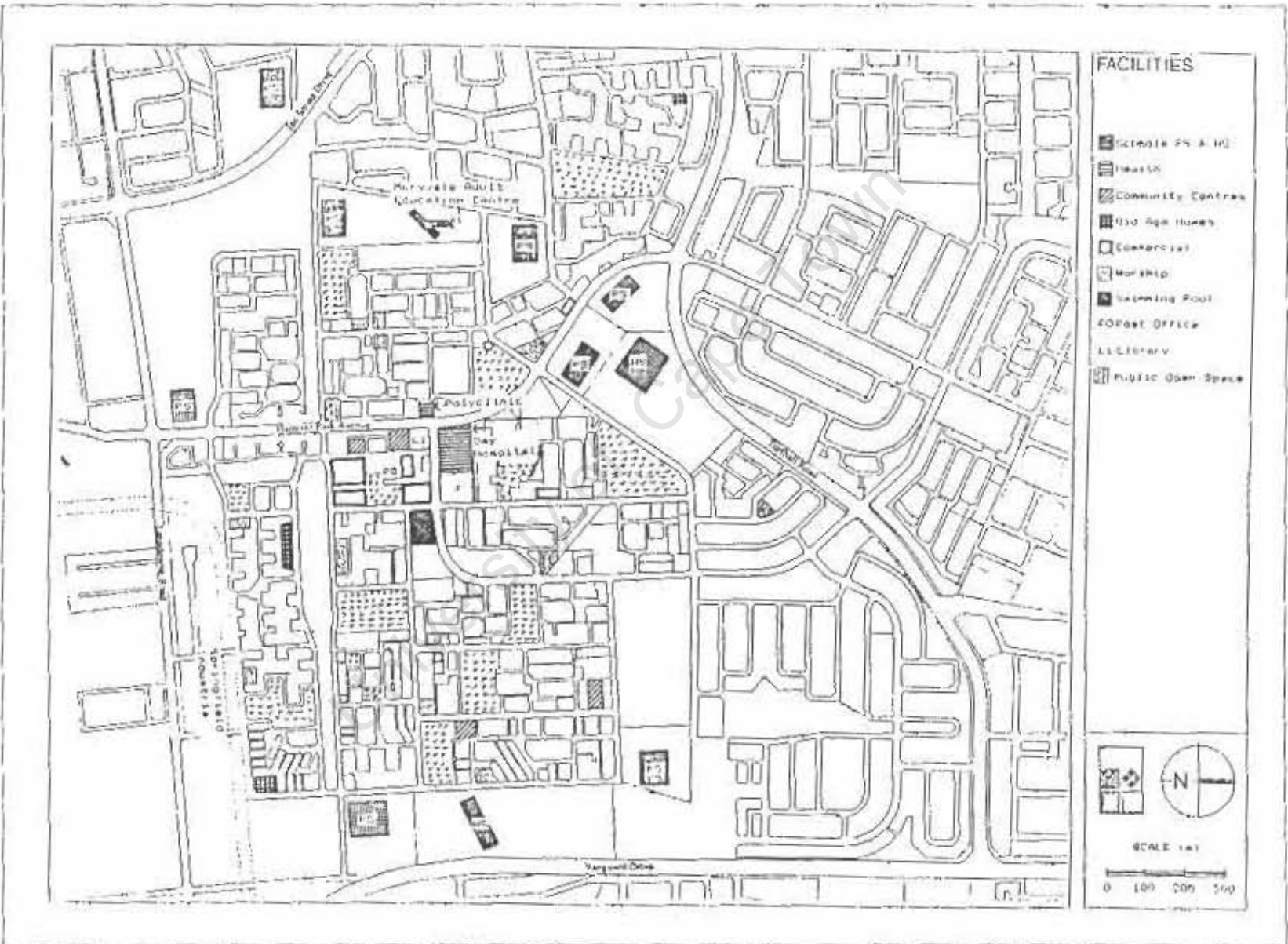


Diagram 2.3a Hoover Park and Facilities

Source: Awoluna et al (1995) Township in Cape Town: Case study area profile working Paper 9.

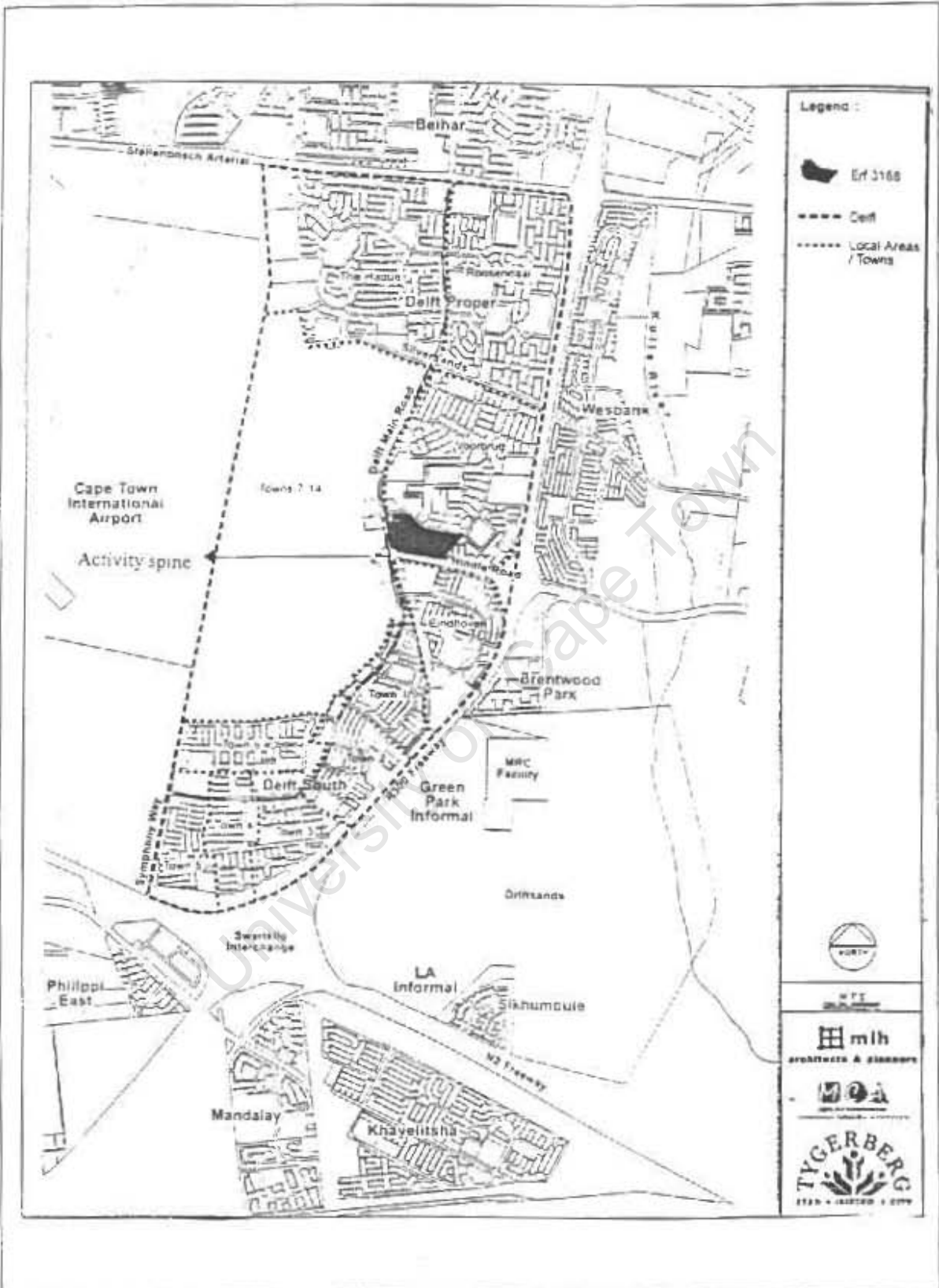


Diagram 3.3b Deift layout plan

Source: Tygerberg Housing Municipality.

By comparison the layout of New Crossroads is different from the elongated grid used in Nyanga. The streets are curved, while the road space is rationalised by means of cul-de-sacs. This layout is based on a system of internal ring roads. Social and commercial facilities are internalised, though some are also located on the corners of the broader grid. The level of infrastructure is similar to that of Nyanga - not well developed.¹¹²

To summarise the above, it has been illustrated that the planning ideas within Cape Town were influenced to a significant degree by the Garden City planning concept and the Neighbourhood Unit planning concept. The residential patterns of these two planning ideas are obviously of a sprawling nature, as they champion the housing pattern of single dwelling unit per plot. As a result, high levels of car ownership are a *sine qua non* for an efficient or functional level of mobility. To understand the impact of this planning model on the provision of housing, it will be useful to compare dominant patterns of housing in the greater Cape Town area.

¹¹² Awotona, et al (1995) Township in Cape Town: Case Study Area Profiles. Working Paper no.9, pp. 2-10

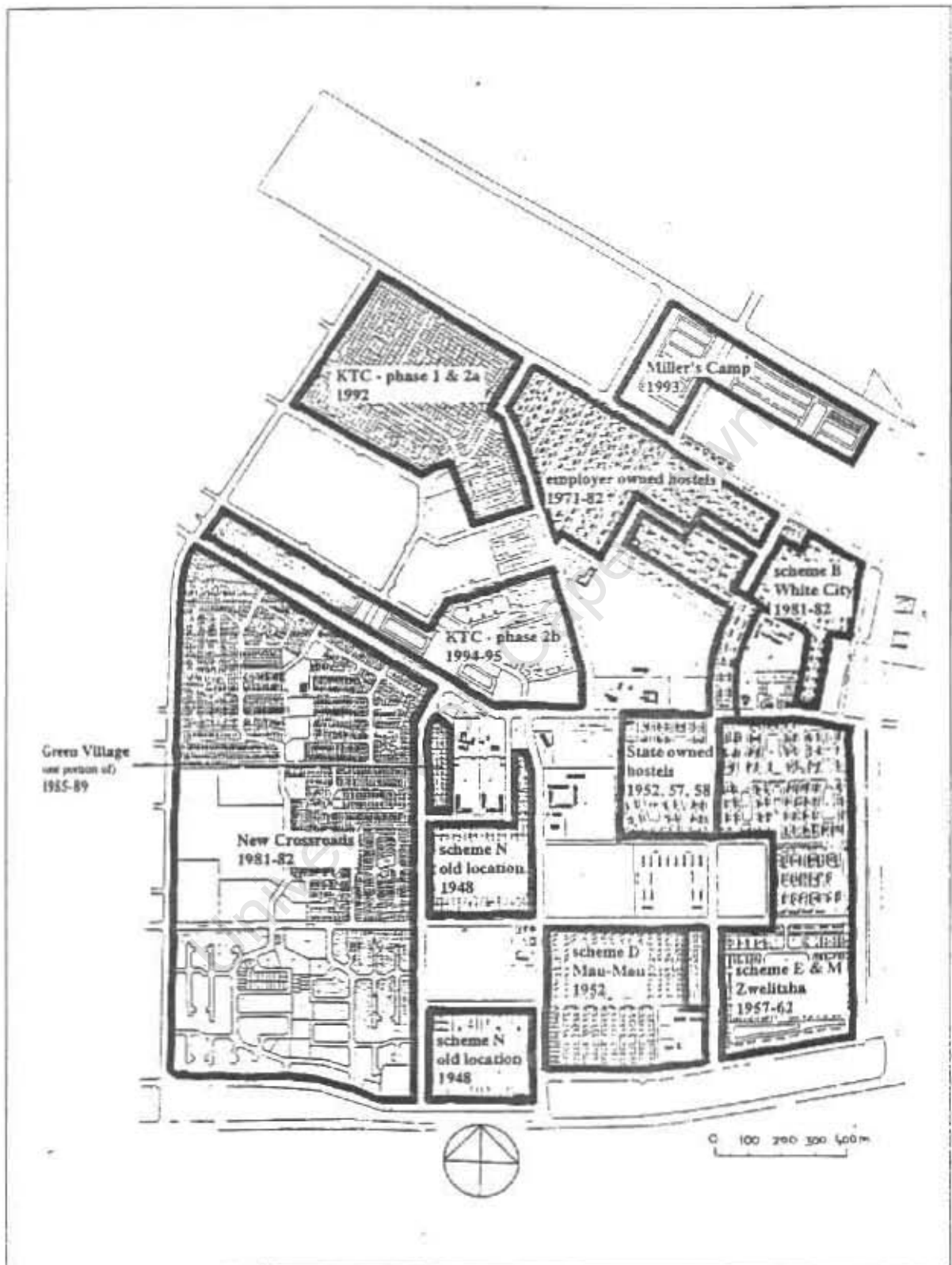


Diagram 3-4 Sub-area with Nyanga and KTC

Source: Awotona, et al (1995) Township in Cape Town: Case Study Area Profiles. Working Paper no.9, pp. 2-29

3.3.1 Trends of Residential Development in Cape Town

In order to examine the trends of residential development thoroughly, the research will analyse the same in relation to the various income groups, ranging from high-income housing groups down to subsistence-income housing groups.

- **High-Income Housing**

The predominant form of housing in this category is low density, comprising single dwellings and large plots developed on the urban edge where natural amenities are high, if accessible. The provision of these amenities occurs through the private sector, often as a result of individual development and finance. Examples can be found in areas like Constantia, Claremont, Upper-Wynberg, Hout Bay, Bishops Court, Camps Bay and Durbanville.¹¹³

- **Middle-Income Housing**

In this category there is a trend towards low density, single dwelling, suburban housing estates. These areas are located in a 'band' around the perimeter of the Cape Flats, where land is relatively cheap. Examples are areas such as Strandfontein, sections of Blue Downs, Mfuleni, Pelikan Park, Athlone, Rondebosch-East, Fairways and Grassy Park¹¹⁴.

- **Low-Income Housing**

The predominant forms of housing in this category are single dwellings, detached residential buildings and, less frequently, block of flats. This category of housing can be found in areas like Khayelitsha, Manenberg, Delft, Bonteheuwel, Hanover Park and

¹¹³ Dewar, D. et al (1990) *The Structure and Form of Metropolitan Cape Town, It's Origins, Influences and Performance*. Urban Problem Research Unit, p.126. See also Le Sueur, J. MDF team (1992) *Towards A Draft Spatial Development Framework for Metropolitan Cape Town, A Town Planning Branch Internal Workshop*, p. 15 and Khan, D. M. (1997) *Case Study Cape Town, Planning and Design in the 1990's*, p.15.

¹¹⁴ Khan, D. M. (1997) *Case Study Cape Town, Planning and Design in the 1990's*.

Langa.¹¹⁵

- **Subsistence-Income Housing**

The basic housing forms in these areas are single detached units on separate plots. Although the new houses delivered by the state are in the form of site and service, the previous House of Representative's housing schemes were in the form of core houses or slab-party wall solutions.¹¹⁶

Further in this regard, there is a trend towards squatting in areas close to places of employment. This has happened, for example, in Hout Bay and Noordhoek, but it is not occurring at a large scale due to the subsequent threat of removal. However, there is a trend to create new informal settlements consisting mainly of shacks, in areas such as Khayelitsha and KTC.¹¹⁷

From the above, it is clear that all categories of income groups within the City of Cape Town, i.e. from subsistence-income level to high-income level, use predominantly single dwelling units in their residential areas.¹¹⁸ As a result, an overall structural pattern has emerged in the city of Cape Town that is dominated by unidirectional low-density sprawl (refer to Diagram 3.5).¹¹⁹ There are three types of sprawl namely:

- speculative sprawl by higher income groups. Developers provide low-density suburbs which promote private single-storey dwellings on a large plot, with access for one or more cars / dwelling. This is facilitated by a free flow of traffic and high space standards for community facilities (examples of such development exist in Constantia and Hout Bay) :
- Crisis-driven search for land by authorities wanting to develop low-income housing.

¹¹⁵ Dewar, D. et al (1990) *The Structure and Form of Metropolitan Cape Town: It's Origins, Influences and Performance*. The Urban Problem Research Unit, UCT. p.127

¹¹⁶ Khan, D. M. (1997) *Case Study Cape Town, Planning and Design in the 1990's*

¹¹⁷ Khan, D. M. (1997) *Case Study Cape Town, Planning and Design in the 1990's*

¹¹⁸ Le Sueur, J. MDF Team. (1992) *Towards A Draft Spatial Development Framework for Metropolitan Cape Town*. A Town planning Branch Internal Workshop. Pages 15-19.

New and more formal single dwelling units are provided in a large scale by the authorities (examples in Delft and part of Khayelitsha), and,

- illegal squatting on locations which avoid harassment. The squatter settlements occur in outer edge of established settlements. This development occurs in areas of Khayelitsha.¹²⁰

The crux of the problem should not be misunderstood as being rapid urbanisation, because this is an inevitable result of rapid population increase. Rather the focus should be on the predominant application of particular building types and the planning ideas applied for suburban housing purposes in Cape Town. In order to explore possible solutions the next section reviews a comparison between planned sprawling and planned compact environments.

3.4 Criticism of the Sprawl Condition of Cities

The following criticism of the sprawl condition will be by way of a comparison between the prototype single dwelling planned communities as against high-density planned development. The comparison will be based on cost analyses under various headings, namely: operating costs, capital costs, social costs, environmental costs, functional costs and, finally, opportunity costs.

3.4.1 Operating Costs

The operating costs of utility services incurred in a low-density development are greater than those of a higher density development. The reason for this is that in high-density development the distance between units / plots is shorter and thus densities of consumers per kilometre of trunk services are higher. Logically, then, when different units are stacked above each other, there are even greater economies of scale.¹²¹ This is

¹²⁰ Khan, D. M. (1990). Case study Cape Town. Planning and Design in the 1990s. Page 10.

¹²¹ Khan, D. M. (1990). Case study. Cape Town Planning and Design in the 1990s. p. 10

¹²² Downing, P. and Gustely, R. (1977) 'The public services cost of alternative development: A review of the evidence' as in Downing, P. 'Local services pricing policies and their effect on urban spatial structure'

particularly obvious in road-based services like solid waste collection, storm water removal, police surveillance and postal delivery. For example, it would require more fuel, more police vehicles and more working hours to patrol a sprawling development than a high-density development.¹²²

3.4.2 Capital Costs

The capital costs of providing services in a low-density development are obviously greater than those pertaining to a high-density development. For instance, the cost of providing sewers and the cost of sewer treatment are higher in a low-density development than in a high-density development. This also applies to the cost of providing other services such as water, electricity and storm water drainage.¹²³ Obviously, there are two main reasons for the higher costs of suburban infrastructure, namely:

1. the increased distances between the single residential development generate unnecessary reticulation cost.
2. peripheral isolated suburban developments create the need, either for the provision of separate utility mains (for example, a sewer treatment plant) or a long infrastructural linkage to existing utility mains. It is very important to note that the capital cost of constructing a two-storey walk-up apartment was almost a third of a detached dwelling. However, studies also show that above five storeys, the capital cost increases rapidly due to the need for lifts and undercover parking.¹²⁴

UBC Press, Vancouver.

¹²² Watson, B. (1992) 'Spread City: Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. Urban Problem Research Unit. The University of Cape Town.

¹²³ Watson, B. (1992) 'Spread City: Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. Urban Problem Research Unit. The University of Cape Town, p. 14 and Wells, F. (1977) 'Customer Density and Electricity Distribution Cost' as in Downing, P. 'Local Services Pricing Policies and their Effect on Urban Spatial Structure. UBC Press, Vancouver.

¹²⁴ Stone, P. A. (1988) 'Development and Planning Economy: Environmental and Resources Issues' E and F N Spon, London and Stone, P. A. (1993) 'The Structure, Size and Cost of Urban Settlements. Cambridge University Printing Press, Cambridge

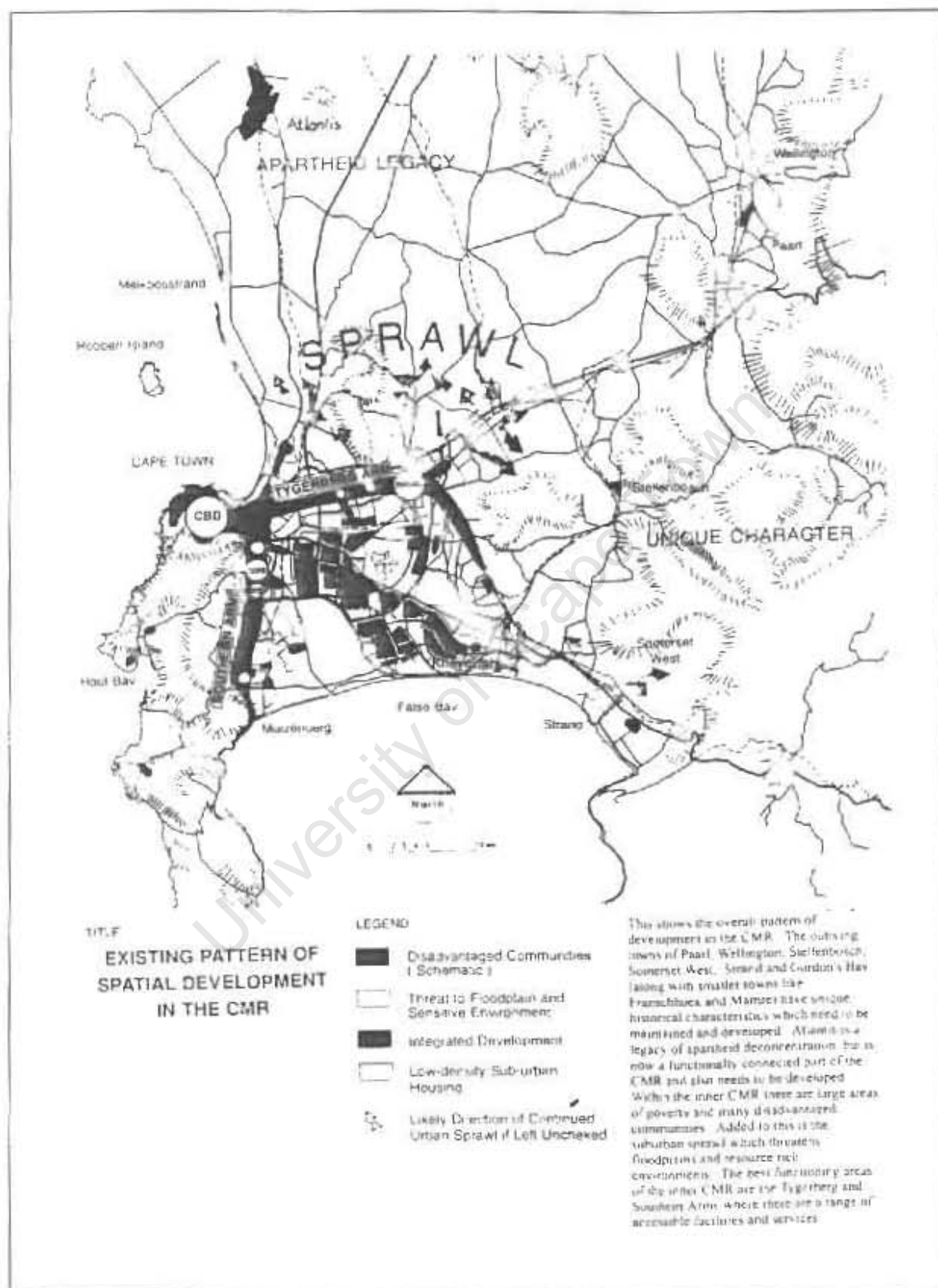


Diagram 3.5 Existing pattern of spatial development in Cape Town Metropolitan Region

Source: Khan, D. M. (1990). Case study Cape Town Planning and Design in the 1990s.

3.4.3 Social Costs and Social Opportunities

This category refers to, for instance, travel costs and time. It has been shown that travel costs as well as travel time are very much more reduced in high-density developments than in low-density developments. The differences are attributed mainly to the shorter trip lengths¹²⁵. There are certain critics of the sprawl model who propose that travel costs have a significant effect on accessibility. However, a study by Pushkarev and Zupan (1977) revealed that in low-density development it was only high-income groups that could afford either the cost of private transport or expensive public transport fares as against low-income group where the reverse is the case.¹²⁶ It was concluded that transport access and accessibility for low-income groups only increased at high densities, largely due to the fact that patronage of public transport increases with higher population concentrations which result from high-density development.¹²⁷

Furthermore, it is suggested by critics of the sprawl that high-density planned environments offer a more stimulating environment than do low-density sprawl communities. Low-density developments are argued to provide little variation in design and housing types, which results in a relatively undistinguished and uniform environment.¹²⁸

3.4.4 Environmental Costs

Several issues are examined to ascertain environmental costs, namely: land consumption, air quality, water pollution and the maintenance of the greater ecological balance.

¹²⁵ Newman, P.W.G. and Kenworthy, J.R. (1989). *Cities and Automobile Dependence: A Sourcebook* Gower Technical, Aldershot.

¹²⁶ Pushkarev, B. S. and Zupan, J. M. (1977) 'Public Transport and Land Policy' Indian University press, London.

¹²⁷ Pushkarev, B. S. and Zupan, J. M. (1977) 'Public Transport and Land Policy' Indian University press, London.

¹²⁸ Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town, p.16 and 17.

density environments. As a result it can be said that high-density planned communities will actually conserve habitats and maintain a greater ecological balance. In low-density communities, on the other hand, no land is left undisturbed.¹³²

3.4.5 Functional Costs

This category pertains to the level of transportation within the context of high-density development on the one hand, and low-density sprawl on the other. Various effects on developed environments are analysed.

Travel conditions tend to deteriorate in low-density planned environments. This can be traced back to the huge demand for private mobility, which thus generates a low level of public transport patronage, thereby reducing the viability of services. Another reason is that a high demand for movement is generated as a result of excessive distances. In addition, private mobility is preferred due to increased incidence of crime and violence occurring on public transport routes / nodes. As a result of these two factors mentioned above road utilisation increases and congestion is aggravated during peak periods¹³³. Although different opinions exist, there is a strong need to address suburban congestion. This can be achieved by redesigning and relocated workplaces closer to residential areas and integrating them into nodes of higher density and mixed land uses. It is argued that this would reduce both radial and non-radial trip lengths and thus reduce suburban congestion.¹³⁴

The aforementioned problem of congestion in low-density sprawl conditions has contributed to several other problems. One of the problems can be seen in the area of economic production. There is a negative impact on labour productivity as a result of

¹³² Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town, p 18 and 19.

¹³³ Pushkarev, B. S. and Zupan, J. M. (1977) 'Public Transport and Land Policy' Indian University Press, London and Newman, P. W. G. and Kenworthy, J. R. 'Gasoline Consumption and Cities: A Comparison of US Cities with a Global Survey' in *JAPA*, (1989) vol. 55, no. 1, Winter respectively.

¹³⁴ Cervero, R. (1986) "Unlocking Suburban Gridlock" *JAPA*, Vol. 52, No. 4 Autumn. Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town, p. 18.

tiredness and lateness to work, resulting from excessive travel time from dispersed environments. Secondly, the excessive distances that must be covered for transportation of finished goods, materials and labour in sprawl environments, also increase production costs and thus inflate commodity prices. Finally, the low concentration of consumers in low-density environment limits the market thresholds required by commercial enterprises, particularly in the case of smaller businesses.¹³⁵

In terms of land utilisation, suburban sprawl is argued to represent an inefficient use of non-renewable resources. This is as a result of the predominant single dwelling pattern of suburban growth that creates an environment with low residential densities and excessive largely privatised, open spaces. The very high reliance on privately owned cars in such a suburban environment also dictates the need for large parcels of land to be dedicated for parking, storage and the movement of private vehicles.¹³⁶

In terms of energy consumption, this is obviously lower in high-density developments than in low-density developments. This difference can be attributed to a decrease in need for residential heating and shorter trip lengths. In a study of petrol consumption in the world it was discovered that there was an obvious increase in the consumption of petrol when population density falls below 30 persons per hectare gross. The reasons for this are as follows:

- the increased lengths of trips created by low-density cities, and,
- the large number of trips necessary in suburban areas to satisfy daily household needs.¹³⁷

Finally, in terms of water consumption, high-density planned development consumes less quantities of water as against low-density planned community. This results from a

¹³⁵ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p. 16 and 19.

¹³⁶ Newman, P. W. G. and Kenworthy, J. R. (1989) 'Gasoline Consumption and Cities: A Comparison of US Cities with a Global Survey' in *JAPA*, vol. 55, no. 1, Winter

¹³⁷ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p. 19-20.

decrease in the need for irrigation requirements due to the existence of fewer private gardens and smaller expanses of open spaces¹³⁸.

3.4.6 Opportunity Costs

With regard to opportunity costs, a more beneficial alternative use of resources is proposed by Watson (1992). He argues that the resources used for connecting suburban development along the periphery with the centre of the city, plus the resources spent on the bulk of the infrastructure in the city, could be better spent on upgrading the existing infrastructure and accommodating the urban growth internally.

3.5 Criticism of Compaction Cities

The advantages of compacted cities have been highlighted in the above discussion. In opposition to this, other critics base their argument on the review of reports undertaken by Altshuler (1977) and Windsor (1979).¹³⁹ They argue that many of the empirical studies have come to a different conclusion, and have evolved various arguments in favour of suburban sprawl, namely: capital costs, operating costs, social costs, environmental costs, functional costs and opportunity costs.

3.5.1 Capital Costs

With regard to the provision of infrastructure, they suggest that residents in a high-density environment often require more expensive services and facilities than low-density sprawl. They suggest that inhabitants of low-density sprawl areas are generally satisfied without the benefits of expensive services like tarred pavements, public parks, sub-surface utilities and numerous streetlights. They justify low-density sprawl by saying that the capital cost is lower than high-density development because of its lower level of

¹³⁸ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p. 19-20.

¹³⁹ Altshuler, A. 'Review of the costs of sprawl' *Journal of the American Planners Association (JAPA)*. (1977). vol. 43, no.2 April and Windsor, D. A 'critique of the costs of sprawl' in. *JAPA*, (1979), vol.45,

infrastructure provision.¹⁴⁰

- **Acquisition of land**

Critics of the compact environment argue that compaction measures have a negative effect on the acquisition cost of land and thus housing affordability. Although compaction is said to contain sprawl, on the other hand it restricts the supply of land that could be developed in relation to the housing demand. This leads to inflated land acquisition costs. High increases in land prices in turn increase housing purchase and renting costs, to the disadvantage of low-income households. The result is that developers who provide low-income housing are either driven from the market or forced to raise their prices. This argument by critics of compact cities is said to be supported by the experience of compaction measures employed in some Australian and American cities.¹⁴¹

3.5.2 The Operating Costs

The argument that the operating cost of low-density sprawl is lower than high-density development is based on the premise that low-density sprawl requires a lower level of infrastructural provision. It is only logical that the operating costs of this infrastructure are similarly lower. The lower level of services in suburban environments results in lower administration and maintenance costs.¹⁴²

3.5.3 The Social Costs

Typically, social costs are based on the distance travelled. It is argued by critics in favour of suburban sprawl that travel costs in suburban environments are in fact not as great as commonly reported. This is substantiated by the fact that spread cities such as Houston,

no.3. July.

¹⁴⁰ Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town.

¹⁴¹ Colombo, L. J. and Taylor, P. 'Infill Development' in *Urban Land*, (1988) vol.47. no.9, September.

¹⁴² Altshuler, A.: 'Review of the Costs of Sprawl' *Journal of the American Planners Association*. (JAPA). (1977), vol.43, no.2 April and Windsor, D. A critique of the costs of sprawl in *JAPA*, (1979), vol.45, no.3.

Detroit and Los Angeles, to mention but a few, are reported to have average travel times 20% to 30% shorter than compact cities such as New York and Chicago.¹⁴³ The differences in time are partly attributed to the time taken by walking to and waiting at transport terminals. Secondly, the decentralisation of commerce and industry towards the suburbs has effectively reduced trip lengths. Experience has shown that in terms of travel costs in consolidated areas of Australia, for example, increased housing costs in the inner and middle suburbs often forces lower income households to live on the city periphery. In such a situation, lower-income communities incur the greatest travel costs.¹⁴⁴

- **Household preferences**

In terms of household preferences, it is shown in this argument that the best qualitative benefits of the various patterns of urban growth are argued to manifest in residential preferences. The benefits of suburban growth are listed as: a single family home, privacy, rural ambience, cultural similarity and a safe environment for raising children. A major problem that emerged in Sydney and Adelaide, for instance, is the refusal of the public to accept the consolidation of residential buildings. This was observed in a public survey undertaken in 1982 concerning perceptions of higher residential densities. The result was an overwhelmingly negative response to the consolidation of residential buildings.¹⁴⁵

3.5.4 Environmental Costs

In relation to noise and air pollution, critics of the compact environment argue that in a number of ways suburban sprawl is less environmentally damaging. Their argument is based on the premise that suburban environments decongest point sources, which in turn helps to protect the environment. As for water pollution, in high-density areas there is an increase in the peak flows of storm water with greater concentrations of pollutants. This

July.

¹⁴³ Gordon, P. and Richardson, H.W. 'Gasoline Consumption and Cities: A reply' *JAPA*, (1989), vol.55, no. 3 Summer.

¹⁴⁴ Bunker, R. (1983): 'Urban Consolidation: The Experience of Sydney Melbourne and Adelaide' Australian Institute of Urban Studies, Publication no. 111, Canberra.

¹⁴⁵ Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town.*

is as a result of the increased surface runoff per hectare and the intense urban activity of high-density environments. A study conducted in Florida, USA, has shown that compaction measures and high-density developments in fact worsen water quality.¹⁴⁶

3.5.5 Functional Costs

The critics of compacted cities have identified three points of weakness for their argument concerning sprawling cities. In this regard, this thesis will look at congestion, land utilisation and level of energy consumption to see how they support the argument in favour of suburban sprawl.

- **Congestion**

The critics of consolidation argue that suburban decentralisation disperses trip-ends and reduces trip-lengths. As a result, this decreases unidirectional congestion.¹⁴⁷ On the other hand the solution to suburban gridlock which is often suggested is the promotion of high-density nodes of mixed land use. It is stated that the above would worsen suburban congestion as increased numbers of workers would be forced to use low-capacity cross-town road infrastructure to move across the city towards these nodes. They suggest that the solution lies in movement channels with greater capacity, rather than residential areas with high densities.¹⁴⁸

- **Land Utilisation**

Although the critics of consolidation acknowledge that there are expensive infrastructural costs incurred in speculative, discontinuous growth, they also argue that this form of growth is not as inefficient as critics have suggested. Considering rapid urbanisation,

UPRU. The University of Cape Town, p. 22

¹⁴⁶ Audirac, I et al (1990) "Ideal urban form and vision of the good life' in *JAPA*, vol. 56, no.4 Autumn.

¹⁴⁷ Gordon, P. and Wong, H.L. "The cost of urban sprawl: Some new evidence" in *Environment and Planning A*, (1989), vol.7, no. 5, May.

¹⁴⁸ Gordon, P. and Richardson, H.L. (1985) Gasoline Consumption and Cities: A reply, *JAPA*, Vol.55 no. 3 summer.

discontinuous growth that skips relatively central parcels of land is argued to be efficient for the following reasons:

Firstly, the skipping of land parcels facilitates the later development of higher density housing types, thereby leaving room for the development of a range of housing options. Secondly, if a sufficient population threshold is achieved, discontinuous growth will leave parcels of land undeveloped for the provision of commercial services.¹⁴⁹

- **Energy Consumption**

The argument with regard to energy consumption is based on the premise that, although compact environments and investment into public transportation services are important factors in promoting energy efficiency in terms of transportation, this is not the case for transforming a dispersed metropolitan settlement. This is because it can not be based on the performance of the older compact cities.¹⁵⁰ The reasons to support this argument are as follows:

- the capital costs of public transport in the 1990's are not those of the 1890's, and,
- the existing public transport services in American cities are not energy-efficient under prevailing levels of utilisation.

3.5.6 Opportunity Costs.

With regard to opportunity costs the critics of compact cities argue that compaction measures represent an inefficient use of scarce resources. They suggest that arguments in favour of compaction are based upon a utopian vision of city form, which assumes that containing the suburban sprawl will lead to a better quality of life. Arguments like this are questionable, considering the fact that the pressure for compaction originates from

¹⁴⁹ Ohls, J. C. and Pines, D. "Discontinuous Urban Development and Economic Efficiency" in *Land Economics*, (1975) vol. 1. no. 3, August.

¹⁵⁰ Gordon, P and Richardson, H. W (1989) "Gasoline Consumption and Cities: in *JAPA*, (1989) vol.55, no.3 Summer and Newman, P.W.G and Kenworthy J.R. "Gasoline Consumption and Cities : A comparison

city centres in decentralised metropolitan areas.

Secondly, suburban growth is thought to be inevitable in a market economy, as a result of providing more residential buildings due to the population explosion. The sprawl scenario seems to be a natural process of urban growth. Attempts to prevent urban sprawl will therefore forestall the allocation of resources into more important management mechanisms and provide only a temporary protection of peripheral undeveloped land.¹⁵¹

3.6 Criticism of the Argument

As stated at the beginning of this chapter, the concept of costs is important for both arguments, and this includes qualitative and quantitative considerations. Evaluating the qualitative costs of urban growth has generated some further arguments due to personal interpretations.

The argument against the sprawling environment has exposed some limitations. For example the critics of the sprawling development acknowledged that their housing comparison involved a reduction of floor space in high-density dwellings. It is argued that the omission is as a result of the fact that studies have shown that it is cheaper to build small units. The advantage of this is that it accommodates fewer people and this reduces infrastructural requirements. It is concluded that these limitations are related to methodology rather than content.¹⁵²

On the other hand, the critics of compaction highlight two limitations of urban sprawl. The argument in favour of suburban growth tends to be biased towards the cities of the developed world. A number of assumptions exist in this biased interpretation, such as, the existence of fiscal resources, economic growth and household income - factors that have failed to materialise in the cities of the developing world. Secondly, the argument that the

of US cities with a global survey" *JAPA*, (1989) vol. 55, no.1, Winter.

¹⁵¹ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p 24-25

¹⁵² Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town.

nodes of increased urban activities would aggravate suburban congestion is based upon the assumption that suburban congestion occurs as a result of the absence of non-radial or circumferential high-capacity movement of infrastructure. This assumption pertains only to a particular situation however.¹⁵³

The critics of compaction have raised some issues that are of utmost concern in ensuring the efficiency of compact urban growth, even though they are based on a number of assumptions. Some of the important issues of concern are the following:

- the problem of compaction as it affects affordability of housing;
- compact development seems to be a utopian idea;
- suburban sprawl reduces the level of infrastructure; and,
- the argument with regard to the housing preferences.

These assumptions need to be carefully reviewed and considered in the development of medium-density environments in the developing world.

3.6.1 The problem of compaction as it affects affordability of housing.

To say that 'compaction' measures increase housing costs by restricting the availability of developable land, is based on a false assumption. There are three reasons why this assumption is invalid. Firstly, the compact measures ease the pressure on supplying new land by providing additional dwellings within existing communities. Some measures can induce higher densities, for example, the provision of second dwellings and public housing programmes. Secondly, while it is not a necessity that these measures ought to be implemented along the city edges, doing so does not restrict the supply of developable land. Thirdly, the various categories of housing in the market are segmented (low-income and high-income). Due to this an increase in one sector does not necessarily constitute an

UPRU. The University of Cape Town.

¹⁵³ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town

increase in the other sectors.¹⁵⁴

The notion that greater housing affordability is achieved in suburban growth, by the realisation of cheaper peripheral land prices and the facilitation of economies of scale in housing is also problematic. This is because it fails to acknowledge the impact that peripheral low-density growth has on the use of valuable agricultural land and upon public subsidies and private disposable incomes. If the low-income communities are located on the edge of the city due to the market economy, they will be some distance away from the employment centres. This will create a burden on their fiscal resources as well as those of the city as it becomes necessary for public transport services to move people from their places of residence to places of work.¹⁵⁵

3.6.2 Is Compact Development Utopian?

It seems that the critics in support of suburban sprawl do not realise that there is a fundamental utopian assumption underlying suburban development itself. Suburban growth is based upon the assumption that every household owns, or will own a private vehicle. Considering that the level of car ownership is relatively low, it is a rational and realistic response to the conditions and needs in developing countries to encourage a compact city growth for persons on foot. Proponents of suburban growth further assume that all communities will have the resources to develop and maintain leafy landscaped environments. Although this assumption might have limited validity in developed countries such as America, its applicability in the cities of developing countries is highly questionable.¹⁵⁶

¹⁵⁴ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town.

¹⁵⁵ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p 26-27.

¹⁵⁶ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town.

3.6.3 Suburban sprawl reduces the level of infrastructure

The statement that suburban environments require less infrastructural investment because they are believed to be generally content with a less expensive infrastructure is not valid. This is because if expensive infrastructure was provided it would be accepted, considering that human wants are insatiable. Most effectively, suburban residents tend to constitute the wealthiest segment of the city's population, often with the greatest lobbying power in local municipalities. So, in reality, suburban residents demand a high level of infrastructure, which tends to be provided at great social and economic cost.¹⁵⁷

3.6.4 Housing Preferences

The point that compaction measures disregard suburban preferences is true to an extent. The changing household composition in the cities of some developed countries has increased differentiation in housing demand. However, enough evidence exists to illustrate that suburban growth destroys the very qualities and amenities that motivated its preference. For instance, it is not possible to obtain the rural surroundings in suburban environments, considering that each wave of speculative development tends to destroy the semi-rural atmosphere of the previous one and the landscape that surrounds it.¹⁵⁸

The issue that there is an increase in disease and crime with high-density does not conform to empirical testing. The compact cities of Hong Kong and Singapore have very good health rates while the spread cities of Los Angeles and Detroit have higher rates of violent crimes than New York. Another important area is the suitability of the suburban environment for child rearing. According to studies American children were found to value neighbourhood features like accessible meeting points, recreational opportunities and characteristics generally associated more with compact environments than with

¹⁵⁷ Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p 29.

¹⁵⁸ Bourne, L. S. (1991) Recycling Urban System and Metropolitan Areas: A Geographical Agenda for 1990's and Beyond. Economic Geography. vol. 7, no. 3 and Watson, V. (1992). Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town. UPRU. The University of Cape Town, p 28.

suburban environments.¹⁵⁹

It is obvious that the direct relationship of the residential density to environmental quality is a misconception. The determinant of user-satisfaction is shown to extend beyond density type; instead it includes location and access. In fact the key to a better environment is proven to be a better design and not the density of dwellings or people per se.¹⁶⁰

Having demonstrated the advantages of a high-density planned development over a prototype single dwelling planned community, it is important to explore the planning ideologies that could be combined with a high-density development to bring about sustainable compact cities.

3.7 The Need for Sustainable Development in Cape Town (with emphasis towards Low-Income Medium-density Development)

For the first time in history architects and planners are faced with the challenge of how to absorb half the world's population in the various cities that spread across the globe. This occurrence results from natural increase in population and migration from rural areas. The latter has always been very common, as people are usually attracted to cities in search of better opportunities. Cities have continued to spread outward in size and in such a sprawling manner that conventional patterns of accommodating urban growth have become obsolete. In developed countries migration of people and activities from city centres to peripheral suburbia has led to massive suburban development, wide-spread road building (which is very expensive to provide and maintain), increase car use, congestion and pollution. The better examples of such development are commonly found in the Western part of the United States of America, in areas such as Phoenix and Las

¹⁵⁹ Newman, P.W.G and Kenworthy J.R. (1989) *Cities and Automobile Dependence: A Sourcebook*. Gower Technical Aldershot. Van Vliet W. "Neighbourhood Evaluation by City and Suburban Children" in *JAPA*, (1981), vol. 47. no. 4, October. Finally Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town, p 28.

¹⁶⁰ Watson, V. (1992). *Spread City! Evaluation of the Costs of Urban Growth in Metropolitan Cape Town*. UPRU. The University of Cape Town, p 28-29.

Vegas. Meanwhile, the poor in most developed countries are abandoned and isolated in inner city ghettos. However, in developing countries the urban poor are relegated to the squalor of the swelling shantytowns, where illegal residential buildings outnumber official ones¹⁶¹.

The case is not too different in South African cities in general and in Cape Town specifically, where city growth is predominantly suburban, extending outwards in low-density sprawl and fragmented areas typically characterised by land use separation. This whole concept of dividing everyday activities into compartments, segregating workplaces, shops and homes, has been made viable by private mobility. Furthermore, the car has made it possible for people to live far away from city centres. However, it appears that not enough attention is paid to the fact that the wider the city spread out, the more uneconomical it becomes to expand the public transport system, and the more people become dependent on the car.¹⁶² Apart from the fact that this increases pollution levels, the urban poor who are relegated to the periphery of the city where the necessary infrastructural facilities are lacking suffer many discomforts. For instance, the urban poor who should benefit most from proximity to work places and bulk infrastructural services are very often far removed from these services. This condition is further compounded for them by the fact that travel time and cost to these places for daily activities are quite high. Again, public transportation in such areas is often inefficient due to low patronage resulting from low-density sprawl (refer to section 3.4.5 of Chapter Three). This has resulted in unequal access to facilities in Cape Town, with the urban poor being the most affected.

Obviously, the typical urban growth discussed with regard to developed countries as well as that of developing countries in general, and in South Africa with special reference to Cape Town, appears to be uneconomical and unsustainable. Thus the need for sustainable development in our urban centres is dictated by the quest for solutions to these

¹⁶¹ Rogers, R. and Gumuchdjian, P. (1997) *Cities for a Small Planet*. Printed in England by Butler and Tanner Ltd. Frome, p. 7.

¹⁶² Rogers, R. and Gumuchdjian, P. (1997) *Cities for a Small Planet*. Printed in England by Butler and Tanner L.T.D. Frome.

aforementioned problems and several others that have been created by conventional city growth.

However, the creation of sustainable compact cities is a complex issue. It demands a concerted political will, a planning ideology that favours mixed use development, an increase in densities and a development approach that incorporates all forms of public transport systems without allowing the car to undermine communal life.¹⁶³ Furthermore, this includes how to design our streets so that they favour the pedestrian, the cyclist and the greater community.

In practical terms, the compact city should grow around centres of social and commercial activities located at public transport nodes. These could provide focal points around which neighbourhoods could develop. In the bigger picture, the compact city is a network of neighbourhoods, each with its own facilities, while accommodating a diversity of overlapping private and public activities (refer to Diagram 3.6). In this way, members of each neighbourhood are in fairly close proximity to places of work or job opportunities and social facilities. This proximity means less driving for everyday needs, which in turn will reduce congestion and pollution in the city. Further, through the adoption of this concept, different neighbourhoods can acquire different urban qualities and identities. The above opportunities should consist of mixed land use, but also different housing densities and types can also be included.

However, in the case of a big city, mass transit systems can also provide high speed cross-town travel by linking one neighbourhood to the other, whereas local distributors are left to commute people around local areas (refer to Diagram 3.7). This planning concept was applied in Lu Zia Sui, a new district in Shanghai, China. Lu Zia Sui covers an area of one-and-a-half square kilometres. Diverse commercial and residential quarters

¹⁶³ Haughton, G. and Hunter, C. (1994) *Sustainable Cities*. Printed by Jessica Kingsley Publication Ltd. and Rogers, R. and Gumuchdjan, P. (1997) *Cities for Small Planets*. Printed in England by Butler and Tanner Ltd. Frome, p. 38

were created in the district enhanced by a network of parks and public spaces and accessed primarily by public transport.¹⁶⁴

In this particular study of Lu Zia Sui, the transport engineers (Ove Arup and Partners) in charge of the project calculated that the broader mix of activities and greater emphasis on public transport would reduce the need for car journey and thus roads by as much as 60 percent. Emphases were also placed on a network of public spaces (market places, civic nodes, avenues and substantial parks) so as to create a vibrant urban environment.¹⁶⁵

Another important area that must be examined carefully before the idea of sustainable development can be applied in Cape Town, is the issue of increasing densities from the inner city areas outwardly in such a manner that medium density can be achieved. Ordinarily, medium density can be achieved with any type of building from single storey to multi-storey housing (refer to Diagram 3.8). If only single storey developments were to be applied, this would require clustering these units together very closely in order to attain the required density. This option is very likely to compromise the quality of urban life. There is bound to be an invasion of privacy between dwelling units or adjoining plots. Another problem is over-crowding, which may further give rise to various anti-social problems.

¹⁶⁴ Haughton, G. and Hunter, C. (1994) *Sustainable Cities*. Printed by Jessica Kingsley Publication. Ltd. and Rogers, R. and Gumuchdjian, P. (1997). *Cities for a Small Planet*. Printed in England by Butler and Tanner L.T.D. Frome, p. 44

¹⁶⁵ Haughton, G. and Hunter, C. (1994) *Sustainable Cities*. Printed by Jessica Kingsley Publication Ltd and Rogers, R. and Gumuchdjian, P. (1997) *Cities for a Small Planet*. Printed in England by Butler and Tanner Ltd. Frome, p. 44

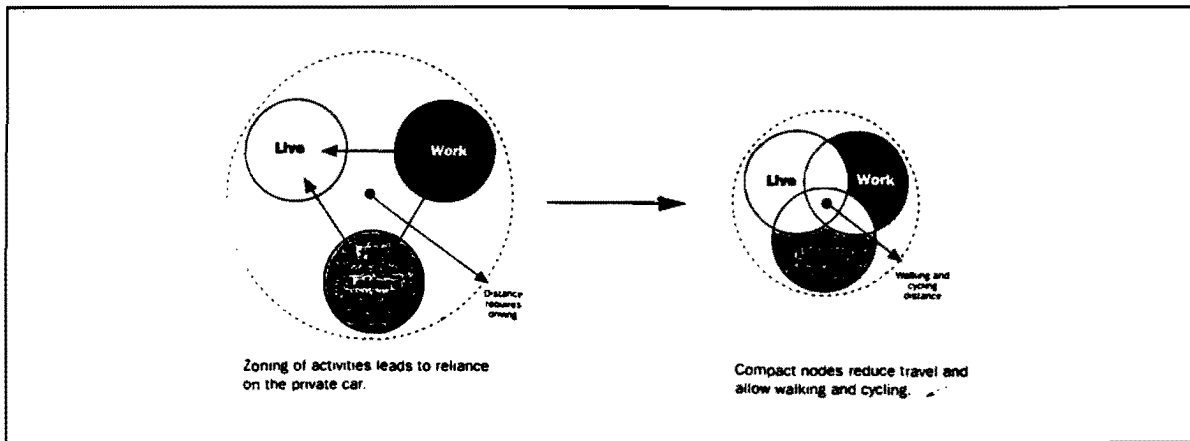


Diagram 3.6 Compact mixed-use nodes reduce journey requirements and create lively sustainable neighbourhoods.

Source: Rogers, R. and Gumuchdjian, P. (1997) *Cities for a Small Planet*. Printed in England by Butler and Tanner Ltd. Frome.

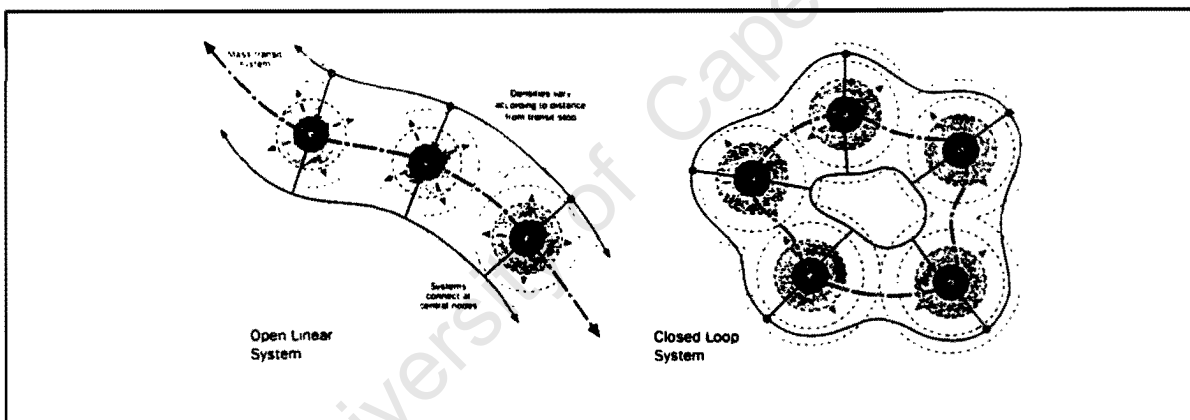


Diagram 3.7 Compact nodes linked by mass-transit systems can be arranged in response to local constraints

Source: Rogers, R. and Gumuchdjian, P. (1997) *Cities for a Small Planet*. Printed in England by Butler and Tanner Ltd Frome.

Consequently the current research proposes the application of multi-storey buildings which may not create these problems which were discussed above, if properly handled. In addition, it is believed that if this new form of urban development were skilfully applied in the city it would contain the sprawl and lead to better management of scarce resources. The aforementioned goal can be achieved through the advantages of a more compact development, which are as follows:

- by reducing the cost of providing services as well as the cost of maintaining such infrastructural services such as water supply, electricity supply, telephone and roads;
- by resulting in a maximum patronage of utility facilities, thus improving the range and quality of services and the provision of such services;
- by reducing the level of energy consumption to a considerable minimum;
- once the above points have been achieved, a more sustainable urban development would be attained in the city, and,
- inclusion of this housing type and mixed-use developments this in itself would considerably off-set the cost of land as well as the cost of infrastructure.

The promotion of medium-density housing is required because it would bring about socio-economic development. The following points demonstrate how this is possible:

- through restructuring the segregated nature of the city by integrating residential areas of different social status standings;
- by maintaining the use of historical infrastructural investment and consolidating its use;
- by housing large amounts of people and thus providing the required level of patronage for the effective functioning of public transport system, and,
- for the same reason as above, by providing the required levels of support for the success of a small-scale business enterprise.

Last but not the least, that medium-density development can bring about improved environmental management in the following ways:

- through the optimal use of a considerable amount of land, the countryside itself is protected from the encroachment of urban development. Therefore more land is made available for agriculture, and for other purposes.
- through improving the ecological balance, and,
- through decreasing levels of air and water pollution. This occurs because trip lengths are shorter and as a result there is a reduction of dependence on the motor car as well as a reduction in the quantity of tarred road surfaces respectively (refer to section 3.4.4 above).

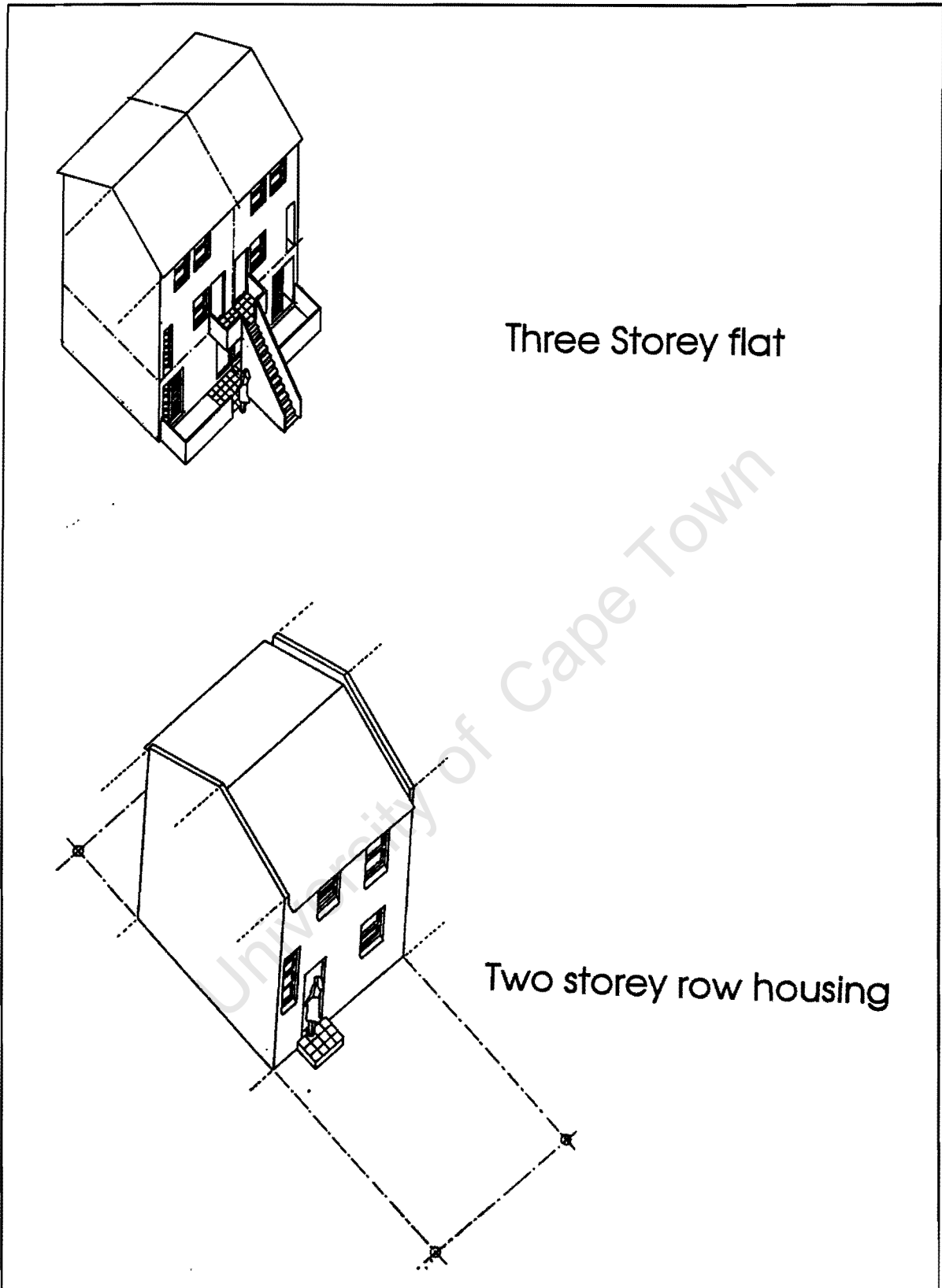


Diagram 3.8 Different options of housing.

Source: Development Action Group, (March) Housing options for the Western Cape

3.8 Conclusion

The above discussion has demonstrated that the current township development in cities such as Cape Town has been informed by the predominant application of the single dwelling unit, the strong influence the car had on city planning and two specific planning models, namely the Garden City and Neighbourhood Unit Models. These ideas were employed in various attempts to reduce the housing backlog in Cape Town. They were widely applied in Cape Town and the city continued to absorb new housing development in a low-density manner, which increased and magnified the problems associated with urban sprawl.

However, it is necessary to understand the housing problem in the context of current township and city development. This problem is not just one of providing dwelling units or large low-income suburban dormitories on the outskirts of Cape Town. It is more about creating cities through the creative and innovative provision of housing. In addition, housing professionals from the private and public sectors need to carefully implement the concept of mixed-uses, compact, integrated and sustainable urban development in the city. Since this development includes the incorporation of mixed-use developments, a working relationship between the private and public sectors is required so as to develop an in-depth understanding of how to provide a mix of different functions. Obviously, this will also require a greater integration and input from local government and planning departments such as transport, water and the environment.

In conclusion, then, this chapter has advocated the need for urban housing with emphasis on achieving a compact and sustainable development rather than the suburban sprawl development currently employed. Presently, the former is yet to be a common occurrence in South African cities, including Cape Town, despite the tremendous advantages it offers to city growth (refer to the latter part of section 3.7 above). For the above reason, the next Chapter discusses in detail by way of two case studies in Cape Town (looking at spread and compaction respectively), to illustrate why medium-density housing is seldom applied to low-income housing to promote a new form of urban development.

CHAPTER FOUR

4.0 CASE STUDIES: ILLUSTRATING WHY MEDIUM DENSITY HOUSING IS SELDOM APPLIED IN LOW-INCOME HOUSING IN SOUTH AFRICAN CITIES.

4.1 Introduction

The Development Facilitation Act of 1995 was enacted to place a humanistic and environmentally sound set of normative principles at the heart of the planning system. The purpose of this Act was to develop settlements that are environmentally sustainable, integrated and compact in addition to promoting mixed-use development. This legislation together with the Local Government Transition Act of 1996 required all local authorities to come up with integrated development plans that deal with spatial, environmental, economic, social and institutional issues holistically.

Despite such a clear proposal for the creation of better settlements, a number of planners and housing professionals still maintain the predominant application of low-income low-density housing which has continued to facilitate urban sprawl. Such developments are normally characterised by massive dormitories with associated facilities. Very often they are disjointed or isolated on the periphery of the city where social and commercial facilities and other vibrant urban activities are either entirely lacking or grossly inadequate. This form of city growth demands urgent attention. However, before this issue can be properly addressed, it is necessary to firstly understand the conditions promoting this problematic development. Therefore, the two questions that come to mind are as follows: Which conditions facilitate the provision of low-income, low-density sprawl that is currently predominant in South African cities with special reference to Cape Town? Secondly, what are the obstacles militating against the provision of low-income medium-density housing and its appropriate location to promote compaction, mixed land uses and integrate urban development in Cape Town?

In order to answer these questions effectively, this chapter examines two case studies. The first is a housing scheme in Delft, which represents low-income, low-density sprawl. It is hoped that the investigation into this housing scheme will unveil those factors that facilitate the provision of only this housing type (suburban development instead of medium-density housing). The second case study is Springfield Terrace in Woodstock, Cape Town. It is a low-income medium-density housing scheme aimed at demonstrating how to promote compact and integrated urban development. Investigation into the execution of this project is expected to reveal those obstacles that militate against utilising this housing type to achieve new urban development. Furthermore, investigations would be conducted into the legislative framework of important components of spatial planning (such as housing and land). It is expected that such (investigation) would throw more light on the issues raised in both case studies.

4.2 Case Study 1: Delft Housing Project

4.2.1 The Site Location

The Delft housing project is situated within the Metro Southeast region, which is one of the eight regions in the Western Cape Province. The Delft area forms the western portion of the Benede Kuils River Urban Structure Plan. The Kuils River bounds the site in the east, and in the south-east it is bounded by the Kuils River freeway and the adjoining Drift Sand Nature Reserve. The N2 freeway forms the southern boundary while the new airport site forms the western boundary and the M12 Stellenbosch arterial forms the northern boundary¹⁶⁶. Sarepta is the nearest railway station while the railway stations of Unibell and Werkgenot are approximately two kilometres away from the northern boundary of Delft. This suggests that public transport was expected to be the main mode of transportation, even more so because the suburb is a low-income one with a low level of car ownership.¹⁶⁷ (Refer to Diagram 4.1)

¹⁶⁶ MLH (Architects and Planners). Nov. 1987. Structural Plan Blue Downs/Delft.

¹⁶⁷ MLH (Architects and Planners). April 1995. Delft South: An amendment to the Blue Downs Local structural plan, p. 7 and Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation.

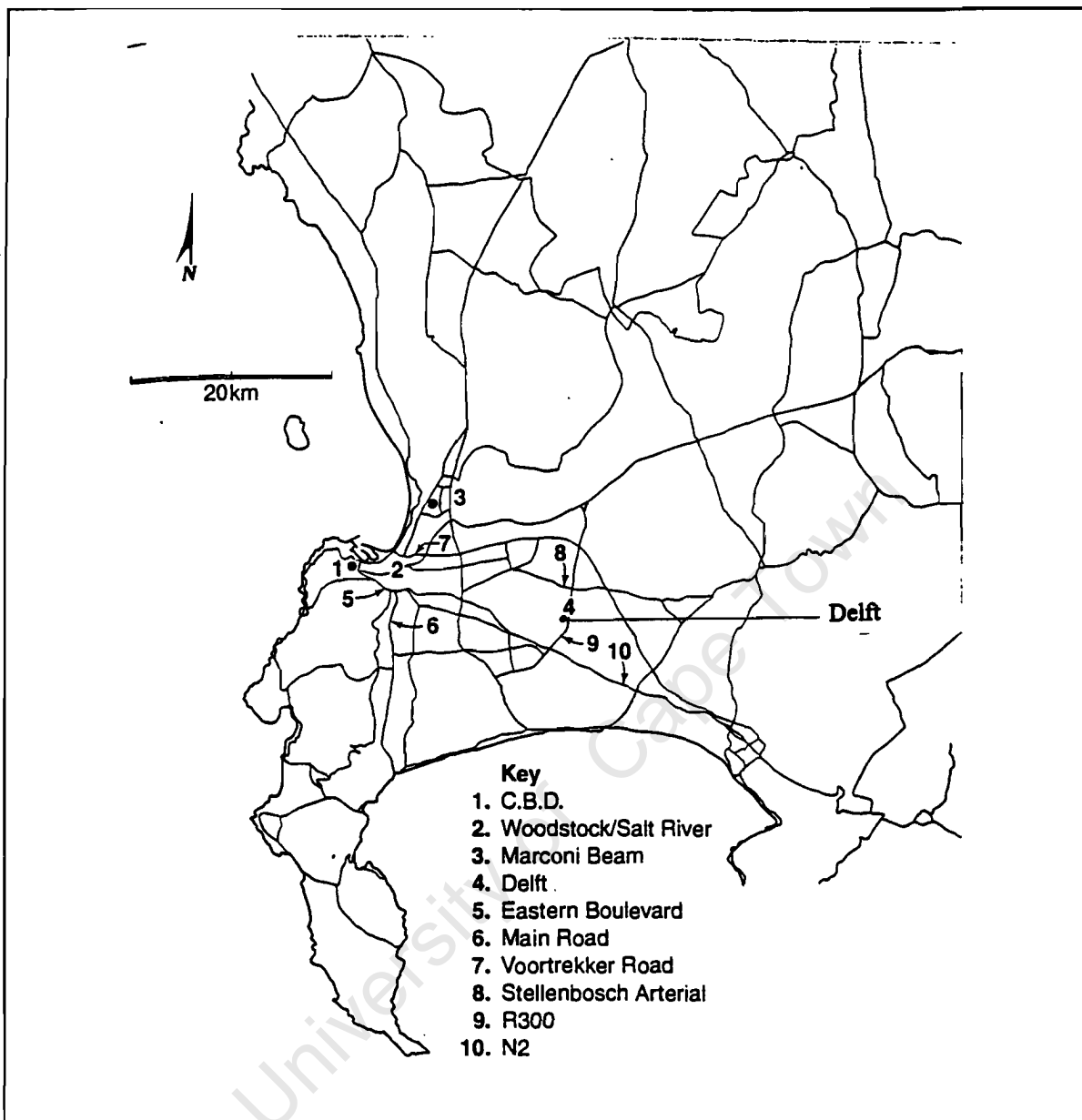


Diagram 4.1 Map indicating the location of Delft (at no. 4) in relation to the Central Business District (at no. 1).

Source: Dewar, D. et al (1998) Public / Private Partnership in the Department for International Development, p 177

4.2.2 The Historical Background

Before the commencement of the Delft housing project, the land was used in many different ways. The area to the east of Kuils River Freeway was mostly privately owned

and a large portion of the land was used for agricultural purposes. A large portion of the land to the west of the freeway was underdeveloped and used as a rifle shooting range. To the southeast of the site is the Delft Animal Farm.¹⁶⁸ The origin of the Delft plan can be traced to the preparation of the Guide plan for the Cape Metropolitan Area in the early 1980's, even though this large low-income housing project was only initiated by the Development Board between 1987 and 1989.¹⁶⁹ The site was mapped out for the future residential needs of the "coloured" population, anticipated to be about 80,000 families.¹⁷⁰

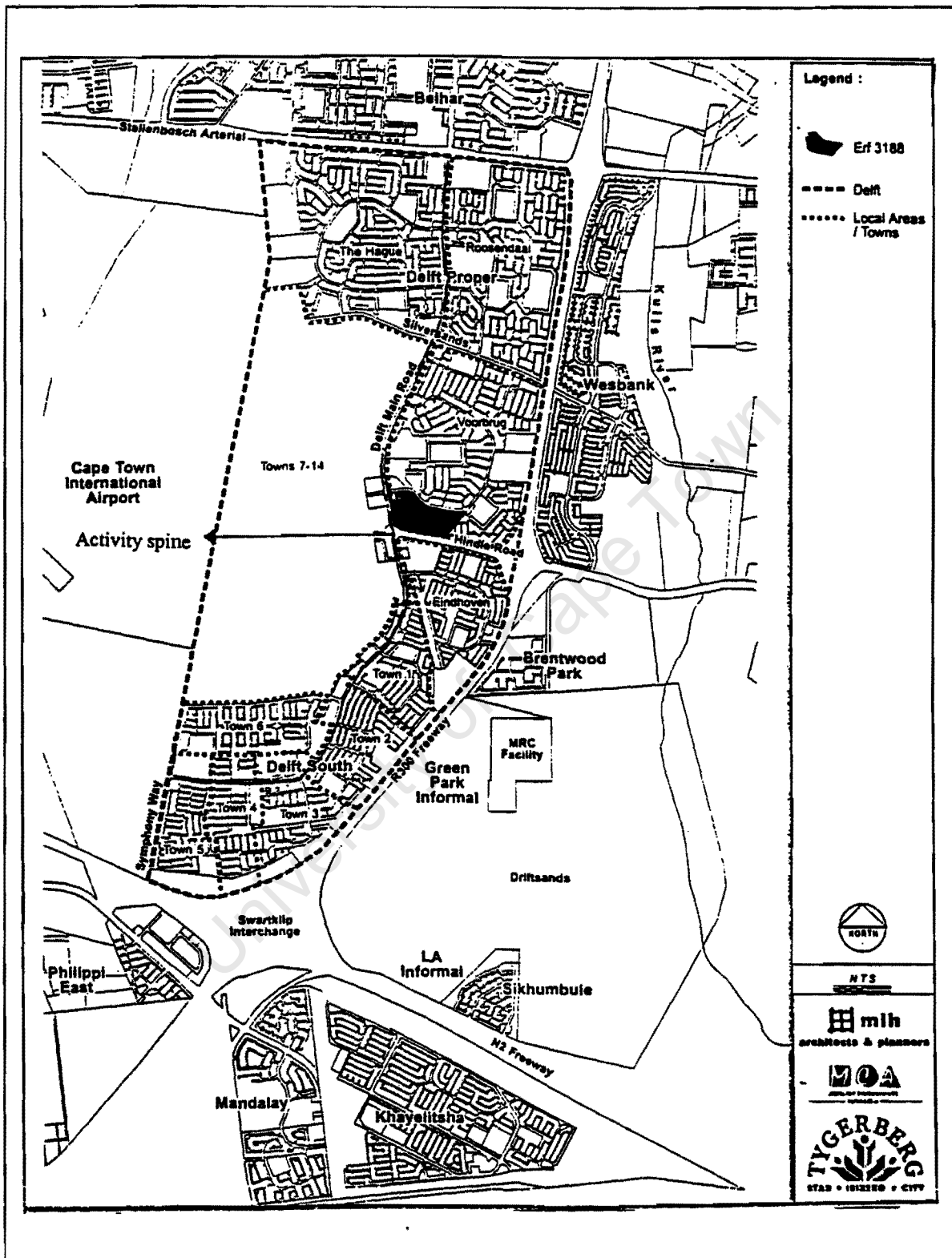
The approved guide plan of 1988 was for an area of some 4,000 hectares referred to as Blue Downs. It was capable of accommodating some 40,000 families. Later on, the Delft development formed part of Blue Downs and was acquired from the State for housing development. At this time, the tricameral parliamentary system was established, and the Minister of Housing and House of Representatives initiated the housing project in Blue Downs. This was after several attempts to involve the Cape Town City Council had failed. It was subsequently decided that the Delft project be executed by means of a departmental in-house team.¹⁷¹ The first four of the planned six local areas, namely Voorbrug, Roosendaal, The Hague and Eindhoven (which combined, became known as Delft proper) were completed between 1988 and 1994 (refer to Diagram 4.2). A total of 7,864 new residential units were approved within these four towns, of which some 6,200 formal housing units have been constructed to date. These sets of units vary in size from 18msq to 60msq on plots that range from 160msq to a maximum of 350msq¹⁷² (Refer to Diagram 4.3a, 4.3b, 4.3c and Plate 4.1).

¹⁶⁸ MLH(Architects and Planners). Nov. 1987.:Structural Plan Blue Downs/Delft, p. 22.

¹⁶⁹MLH (Architects and Planners). April 1995. Delft south:An amendment to the Blue-Downs Delft Local Structural Plan. Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation. MLH (Architects and Planners) June 1999. Delft Multi-Purpose Node Contextual FrameWork, p. 1

¹⁷⁰ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p. 13

¹⁷¹ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p. 13.



¹⁷² MLH (Architects and Planners) June 1999. Delft Multi-Purpose Node Contextual Framework, p. 1.

Although Delft had various residential densities included (medium and high-density housing) in the initial proposal¹⁷³ Delft comprised of various residential densities (medium- and high-density housing), it was predominantly the low-density suburban unit housing type which was adopted.¹⁷⁴ Delft thus represents one of the many low-density developments, which give rise to suburban sprawl in the City of Cape Town. The area is characterised by low nett and gross densities of 29,31 and 18,67 dwelling units per hectare respectively. Basically, it is a large, isolated, low-density dormitory housing estate, with associated community facilities (refer to Plate 4.2 and Table 4.1). Even though some land is zoned for industries, the overwhelming emphasis is on the provision of residential units. This area lacks some very important opportunities and facilities, mainly socio-economic and recreational. The few that are available are often too far from residents in local areas such as the Hague, Eindhoven and Towns 1 to 6 (refer to Diagram 4.2). Furthermore, Delft is some distance from places of work and there are minimal employment opportunities within the area. Private vehicle ownership is also very low, and furthermore, the isolation of Delft is compounded by an inefficient and expensive public transport system.¹⁷⁵

¹⁷³ MLH (Architect and Planners) November 1987. Structural Plan, p. 14.

¹⁷⁴ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation

¹⁷⁵ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p. 14.

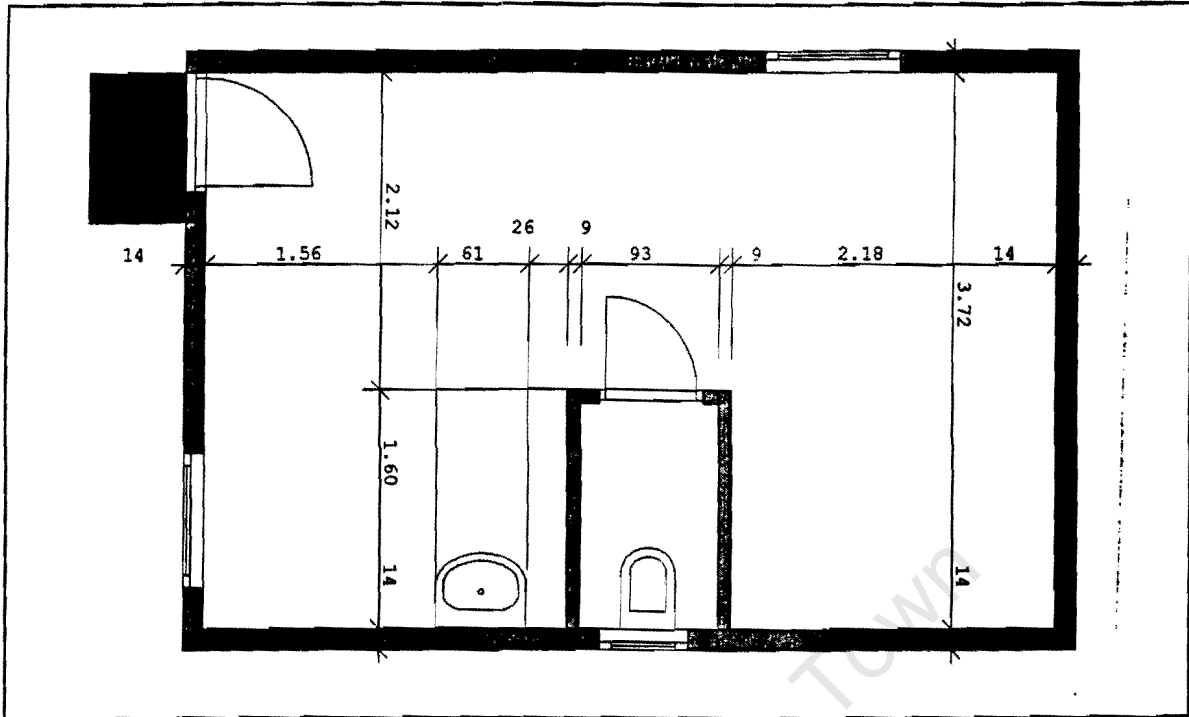


Diagram 4.3a Typical one-bedroom plan in Delft

Source: Tygerberg Housing Municipality.

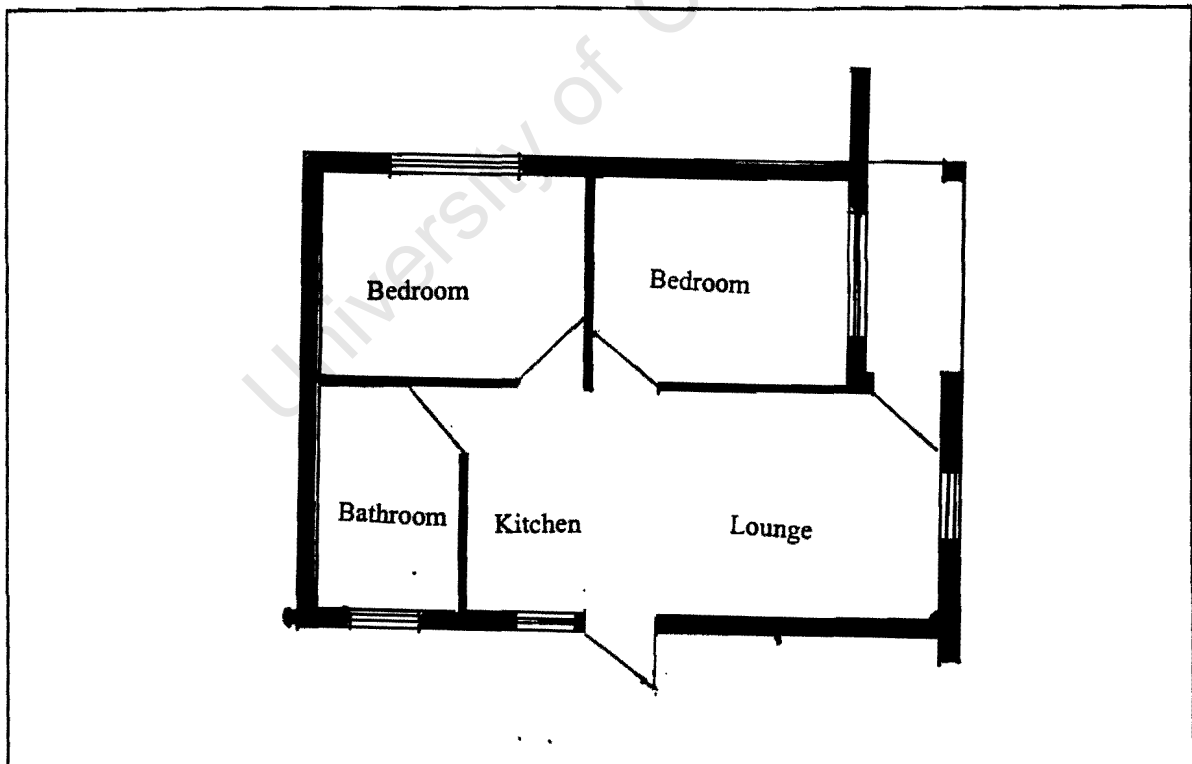


Diagram 4.3b Typical two-bedroom plan in Delft

Source: Tygerberg Housing Municipality.

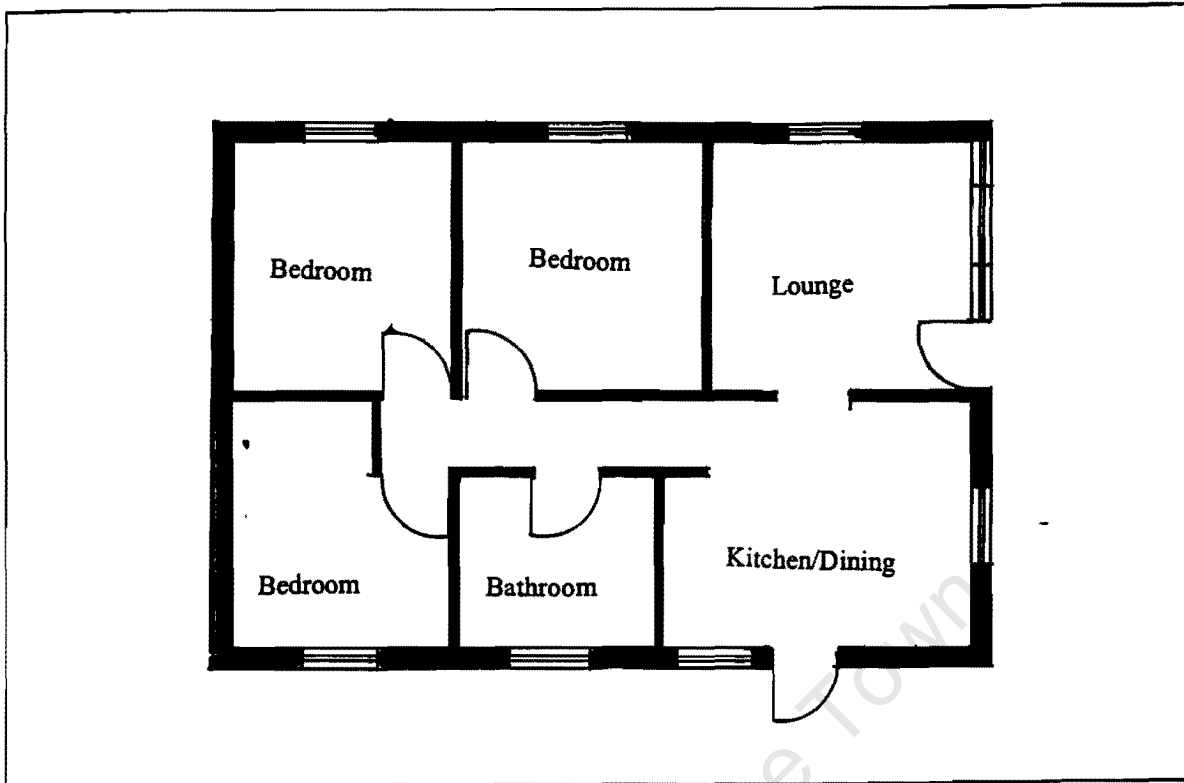


Diagram 4.3.c Typical three-bedroom Floor plan in Delft.

Source: Tygerberg Housing Municipality.

TOWN	EXISTING FACILITY														
	EDUCATION				HEALTH			CIVIC			Post Office	Police Station	Fire Station	Cemetery	Sports field Complex
	Creche	Primary School	Secondary School	Vacant Sites	Community Health Centre	Clinic	Old Age Care Centre	Library	Hall	Administration Office					
The Hague	2	1		3											
Roosendaal	5	1	1	2											1
Voorbrug	3	2	1	2	1			1	1	1	1	1			1
Eindhoven	2	1		1					1	1					1
Town 1	1		1	1											
Town 2	1	1						1	1						
Town 3	1			1											
Town 4				1											
Town 5				1											
Town 6		1		1											
TOTAL	15	7	3	13	1			2	3	2	1				3
CURRENT SHORTFALL															
Delft		5	3					2	5				1	1	6

Table 4.1 Existing Provision of Community Facilities and Current Shortfall

Source: SSDF, Setplan, 1999&MLH, 1999.

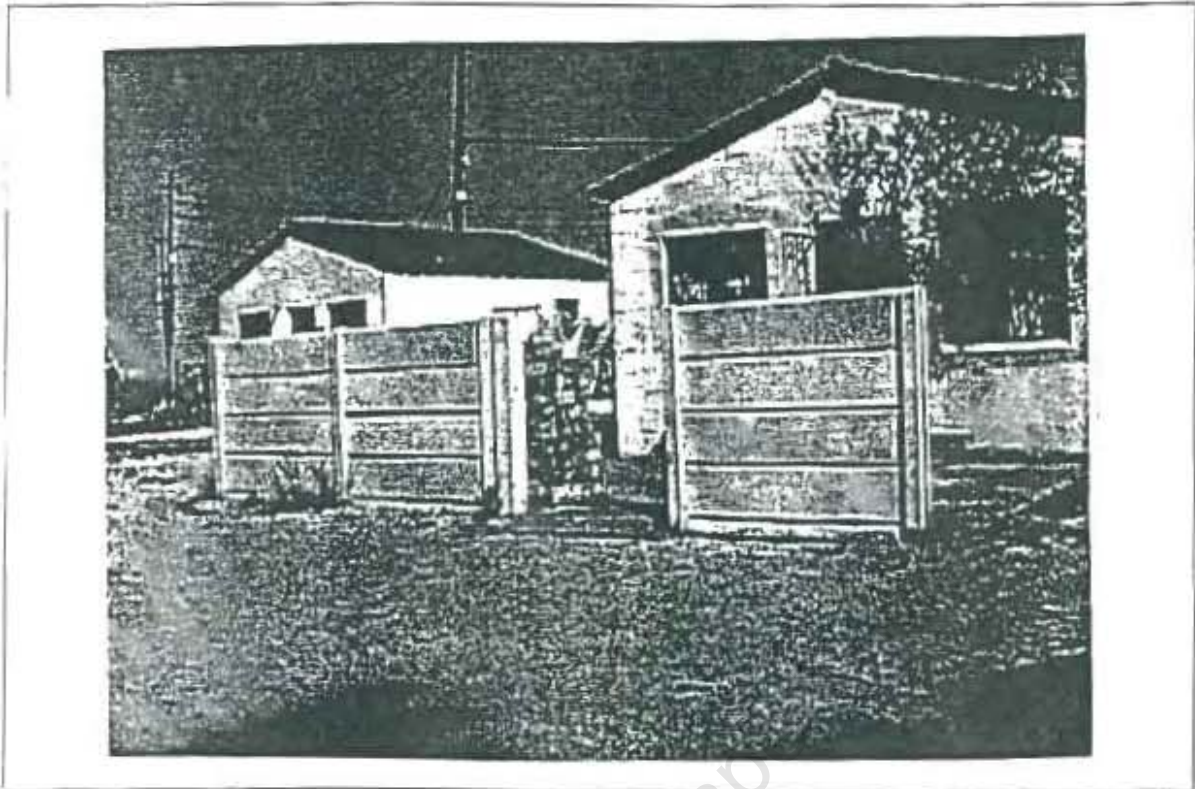


Plate 4.1. Showing a typical dwelling unit in Delft.

Source: This picture was taken during the course of the research.



Plate 4.2. Showing a police station, an example of a community facility in Delft.

Source: This picture was taken during the course of the research.

A group of boards were set up to supervise the processes and procedures of realising the Delft housing project. The most important of these was the Development Board, created in terms of Act 3 of 1987, which facilitated the acquisition of land. The board also facilitated the acquisition of funding for the entire process, including the contract with the developers to construct the houses. Further, the Housing Board was set up to facilitate the financing of individual loans for beneficiaries in terms of Circular 4 of 1987. It also included subsidised repayments over 30 years. The other Government Departments involved in the processes and procedures were the following:

- the Department of Education and Culture within the House of Representatives for schools;
- the Department of Health and Welfare within the House of Representatives together with the Western Cape Region Service Council provided health and welfare services, and finally,
- the Local Authority, the Regional Council of the Western Cape and the Regional Council of Stellenbosch played various roles at different times.¹⁷⁶

According to the presidential project report on the Delft housing project, the adopted organisational framework has much to be commended. It was said: "The development agency approach has long been considered the most effective delivery agent for the provision of housing and this, with the Development Board and its flexible financial framework, facilitated the delivery aspect of the project."¹⁷⁷

The project network was divided into the following three activity groupings:

- the Project Team, together with the Development and Housing Boards acting as agents for the landowner and responsible for the implementation of the project as a whole;
- the beneficiaries, following public participation, as the purchaser, and
- the responsible authorities (Regional Services Council).¹⁷⁸

¹⁷⁶ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p. 14.

¹⁷⁷ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation

The House of Representatives funded the project through the Development and Housing Boards. The fund was used for land acquisition and infrastructure and subsidy finance for the purchase of dwelling units by each prospective buyer. The in-house project team was responsible for the implementation of the housing scheme, while the input was a combined effort of the community and the authorities.¹⁷⁶ Incidentally, only very little community participation was allowed in this project. This left the residents of Delft feeling very dissatisfied about the design of dwelling units available for them to chose from.¹⁸⁰

The Department of Education and Culture of the House of Representative provided six primary schools through funds acquired from National and Local Governments Department budgets. The Department of Health and Welfare Services and the House of Representatives with the Local Authority provided the necessary health and welfare services. Furthermore, the South African Police established a police station in the area. Subsequently, community facilities (such as an information centre, a library, and a large community hall) were funded through monies acquired from the community facilities fund. This fund was made available by the Department Board which allocated fifteen per cent of the price of each plot to a Community Facility Fund. Finally, funds were also made available for the provision of social services through the purchase of land from the Departmental Board by private organisations such as churches and mosques.¹⁸¹

In summary, the above section has discussed the roles and duties of the various parties involved in the provision of housing in Delft. It has also demonstrated that Delft is an example of a sprawling low-income development in Cape Town. However, what is not clear are the conditions that facilitated this development. Therefore, the next section focuses on discussing the aforementioned issue.

¹⁷⁸ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation.

¹⁷⁹ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation, p 15

¹⁸⁰ Dewar, D. et al (1998) Public-Private Partnership in the Department for International Development, p 177

¹⁸¹ Dewar, D. et al (1998) Public-Private Partnership in the Department for International Development, p. 177

4.3 Conditions Facilitating Low-income Low-density Sprawl

This current section focuses on the legislative framework that regulate important component of spatial planning (such as housing and land) for factors that have continued to facilitate low-income low-density sprawl (through the provision of free-standing units). However, specific reference would be made to Delft (as a case study for low-income low-density sprawl) to further elaborate on this issue. This trend has made it quite difficult – even at times impossible – to provide settlements that are compact, integrated in terms of mixing the different classes of residences and thereby able to promote a more sustainable development.

4.3.1 The Planning Environment as a Factor Promoting Low-income Low-density Sprawl

The various components of spatial planning such as transport, the environment, water, housing and land each seem to have their own policy framework and planning procedures.¹⁸² These policies very often contradict one another. For instance, the White Paper on the Reconstruction and Development Programme (RDP), amongst other proposals, suggests that land use and housing be geared towards promoting settlements that are compact, integrated as well as of sustainable development.¹⁸³ In direct contradiction of this, the Department of Housing continues to make funds available for single dwelling units only, thereby encouraging low and unsustainable densities (as is the case with Delft).¹⁸⁴

Very often the planning emphasis was on segregating residential areas according to social status or class. This has further encouraged low-income housing on the periphery of the city where land is cheap and where community facilities are grossly inadequate (as is the case with Delft). Another factor pervading the planning thinking which has continued to

¹⁸² Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect: Apartheid and After. Edited by Hilton, J. and Vladislavic, L. Nar Publisher.

¹⁸³ Government Gazette, 23rd November 1994. White Paper on Reconstruction and Redevelopment Programme

encourage the segregation of low-income housing developments, is the Nimby ("not in my back yard") attitude, which is prevalent amongst the well-to-do.¹⁸⁵ This attitude rejects any proposal of integrating living areas of the poor with the major systems or areas of the city (such as the central business district).

Although some planning and design professionals have come up with innovative planning and design ideas to usher in such sustainable urban development, these ideas are yet to be successful. Very often planners themselves have been unable to intervene in a critical and creative manner, and too often they have resorted to employing standard methods.¹⁸⁶ There is no doubt that these factors are responsible for the continuous application of this housing type which has ensured a low-density sprawl. This suburban sprawl creates problems for two different groups. The first is the poor who are often exposed to the lack of and at times inadequate community amenities on the periphery of the city. The second group is the government, which is faced with exorbitant costs of maintaining and sustaining such developments.

4.3.2 Mindset as a Factor Promoting Low-income Low-density Sprawl

Over the years, the different departments concerned with the provision of low-income housing have acquired sufficient experience in addition to developing an excellent relationship with each other to continue the delivery of the single dwelling unit. The investigation into the Delft housing project revealed that the present organisational framework is considered to be the most effective delivery agent for the provision of this housing type. Secondly, the Department Board had a flexible financial framework that facilitated the delivery aspect of the project. Furthermore, there appears to be an excellent working relationship between the Development and Housing Boards and the project team was thus able to make quick decisions and to exploit opportunities.¹⁸⁷ These conditions

¹⁸⁵ Prinsloo, L. et al (1994) Presidential Project-Delft Housing Investigation, p 18.

¹⁸⁷ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher

¹⁸⁶ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher

¹⁸⁵ Prinsloo, L. et al (1994) Presidential Project-Delft Housing Investigation, p 14

have over the years, given rise to an institutional framework that is experienced and specialised in the delivery of this housing type.

There is thus a typical mindset, as well as an institutional framework, in favour of the free-standing unit amongst housing professional within the Government sector, that has developed over the years. For instance, the project team in charge of layout planning and the provision of internal services in Delft seems to have become an internalised and technically orientated process of planning of subdivision.¹⁸⁸ This may have resulted from the planning ideas widely applied within the Cape Town area. These planning ideas include the Neighbourhood Unit Model, the Garden City Model and the strong influence of the motor car. These ideas further encourage separation of uses and functions, and promote low-density development.

There is a general preference amongst members of the public that good housing only comes in one form –the single dwelling unit on its own plot of land. This is a mindset amongst members of the public that may have developed from the desire to have direct access to a garden around their dwelling unit, as well as the desire to have some degree of privacy in and around their houses.¹⁸⁹

The allocation of funds for the Delft housing project took place in such a manner that each subsidy had a predetermined breakdown of how each amount making up the whole subsidy ought to be spent. For example, a total of about R3,000 was allocated as payment for serviced land. This amount covered the following aspects, such as transfer cost, bond registration, landscaping, the provision of an electricity meter, fences, services connection fees, building plan inspection fees, tax clearance and a washing line.¹⁹⁰ Furthermore, funds were specifically made available for free standing units. This is a problem, which does not enable housing professionals to think creatively about how the limited amount of resources (both land and finance) can be utilised effectively to provide

¹⁸⁸ Prinsloo, J. et al (1994) Presidential Project-Delft Housing Investigation, p 28

¹⁸⁹ X. High Density Medium rise - perception and opinions of tenants, s.a. s.l. s.d. p 24

¹⁹⁰ Dewar, D. et al (1998) Public-Private Partnership in the Department for International Development, p.174

better housing¹⁹¹ and which is, moreover, geared towards achieving sustainable urban development.

Simply put, these factors have predominated because of the complexity of this matter. However, these factors are part of those obstacles, which militate against the provision of low-income medium-density housing geared towards a new urban development in South African cities such as Cape Town. At this juncture, it is vital to throw more light on this issue from the perspective of providing low-income medium-density housing itself. For this reason, the second half of the chapter will examine the Springfield Terrace housing project in Woodstock, Cape Town as its second case study.

4.4 Case Study 2: Springfield Terrace Housing Project

4.4.1 Site Location

The Springfield Terrace housing project is situated within the Cape Town City Bowl, also located within one of the eight regions of the Western Cape Province. The Eastern Boulevard freeway bounds this site on the west and south sides, while Chapel Street bounds it on the north and Nelson Street bounds the site on the east.¹⁹² (Refer to Diagram 4.4.)

The site was historically made up of two land parcels totalling 8,038 square metres. The biggest land parcel measured 6,523 square metres and it was donated by the City Council at a nominal cost to the scheme as the Council was contributing to the partnership (involving Headstart and the Cape Town City Council). It was residual land left over from land expropriated to construct the Eastern Boulevard freeway. The other land covered an area of 1,515 square metres, consisting of some vacant plots and a couple of dilapidated cottages, which housed 25 tenants before the project started. The parcel of land was purchased on the open market, with the understanding that the people

¹⁹¹ Dewar, D. et al (1998) Public-Private Partnership in the Department for International Development.

¹⁹² This information was obtained from Sivuyile Rikityana at the Cape Town City Council during an interview on February 1, 2001.

previously housed on the land would be re-housed in the scheme. These two sites were then consolidated. They were well located in relation to public transportation (rail, buses and taxis) as well as to existing and in some cases under-utilised social facilities. Examples of these include St. Phillips church and the Rahmaniye Institute, while a Muslim community centre flanked the site.¹⁹³ (Refer to Diagram 4.5a and 4.5b.)

4.4.2 Historical Development

The site itself is in an old inner city area located within walking distance to the Central Business District. It is a recent project completed in 1992 and consists of 133 units, both simplex and duplex, in the form of three to four storey walk-ups. (Refer to Table 4.2 and Diagram 4.6a, 4.6 b and 4.6c). It was the first relatively large and non-racial inner city infill project in South Africa, aimed at the lower-income market with the use of the state housing subsidy (refer to Plate 4.3). This project was intended to demonstrate a number of necessary innovations.¹⁹⁴

No of Bedrooms.	Size range (metres square).	Number.
3 Bedrooms	67-73	28
2 Bedrooms	50-64	43
1 Bedroom	30-43	34
Bed-sitter	26-36	28

Table 4.2 showing the final mix of units in Springfield Terrace.

Source: Dewar, D. et al. (1998) Public-Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development Pg 187.

¹⁹³ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vlastakis, L. Nai Publisher.

¹⁹⁴ Dewar, D. et al. (1998) Public-Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development. p 187.

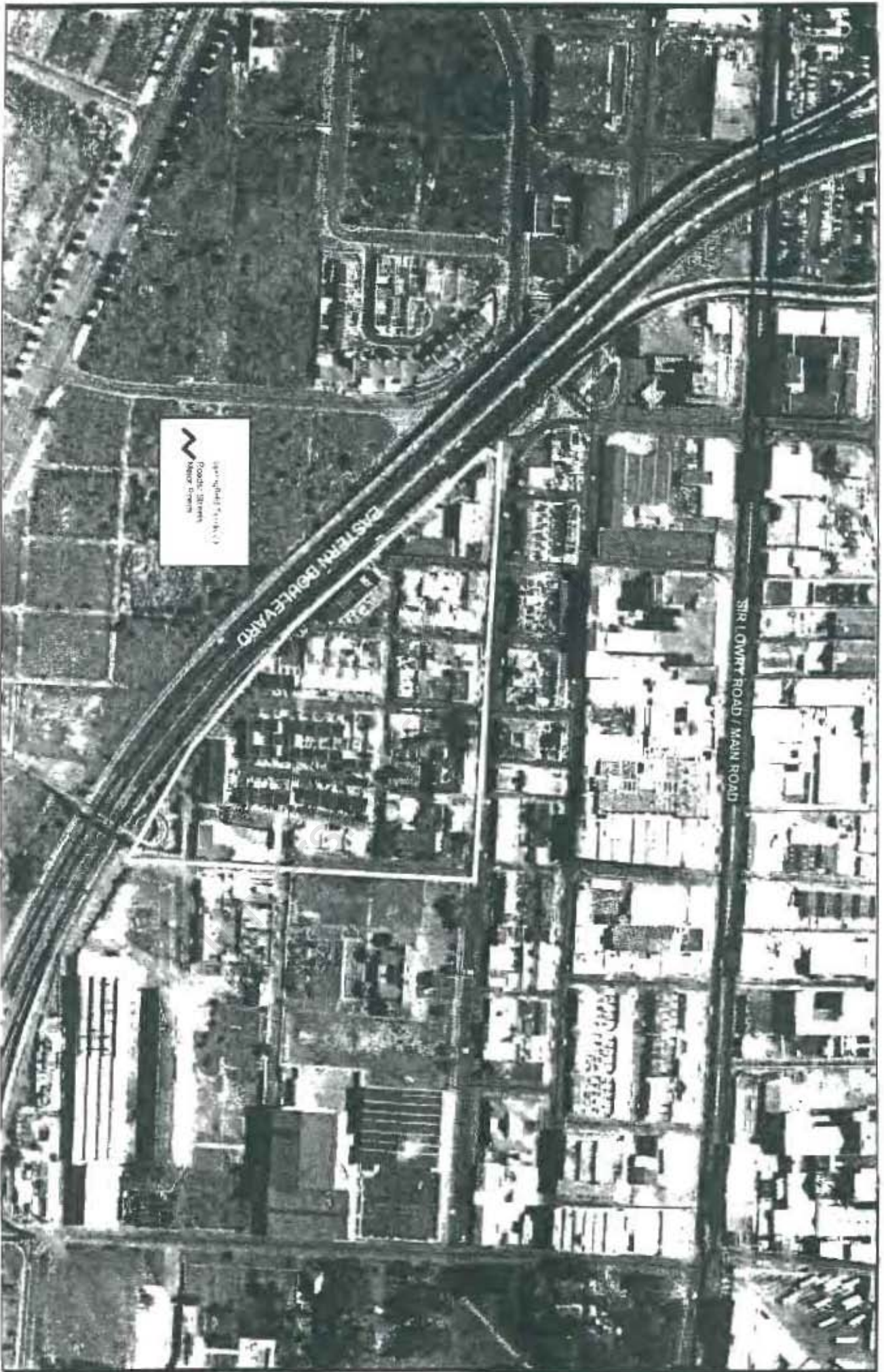


Diagram 4.4 Site Plan of Springfield Terrace in relation to surrounding roads.

Source: Cape Town City Council.

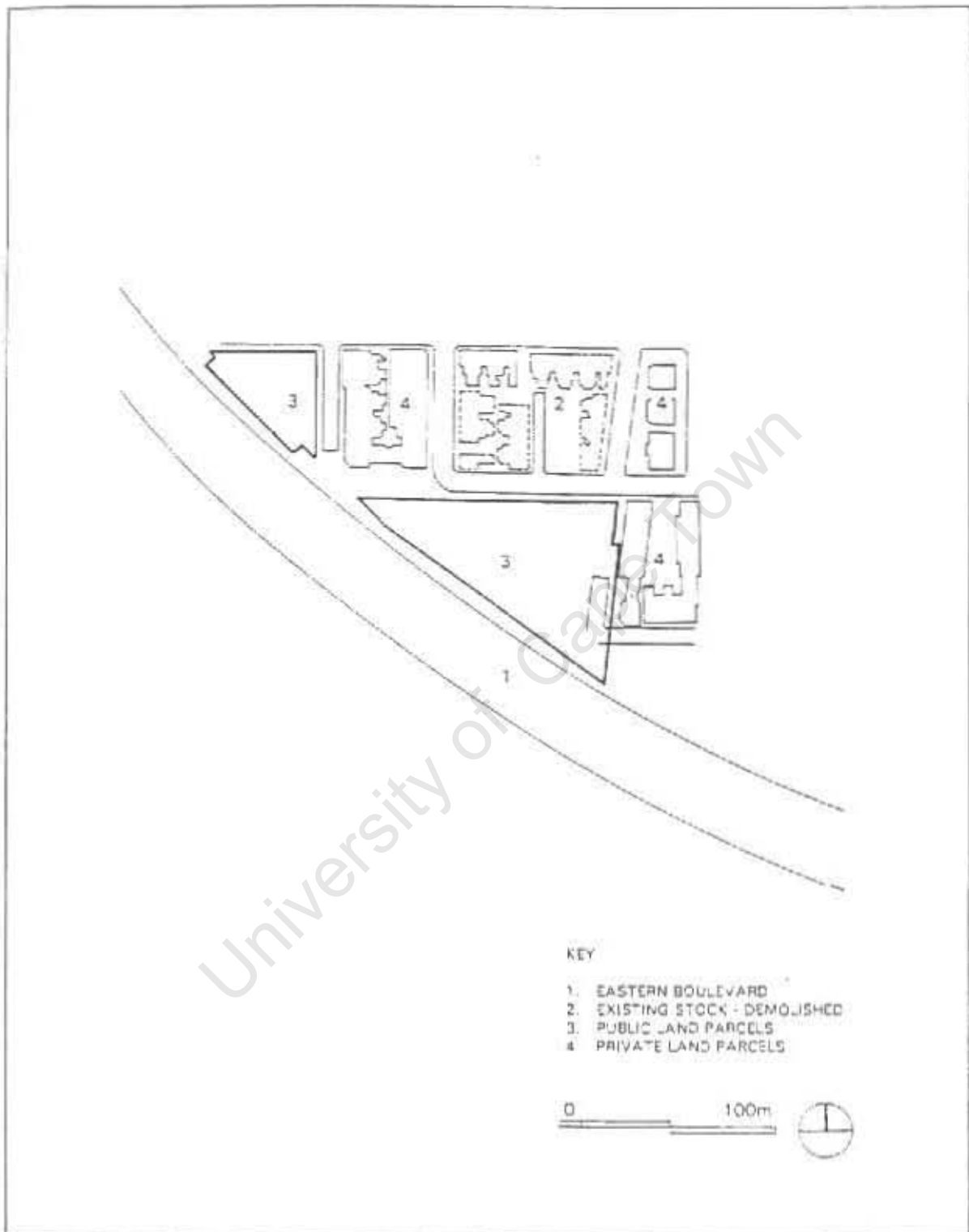


Diagram 4.5a Map showing Springfield Terrace – major land parcels

Source: Dewar, D. et al. (1998) Public-Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development.

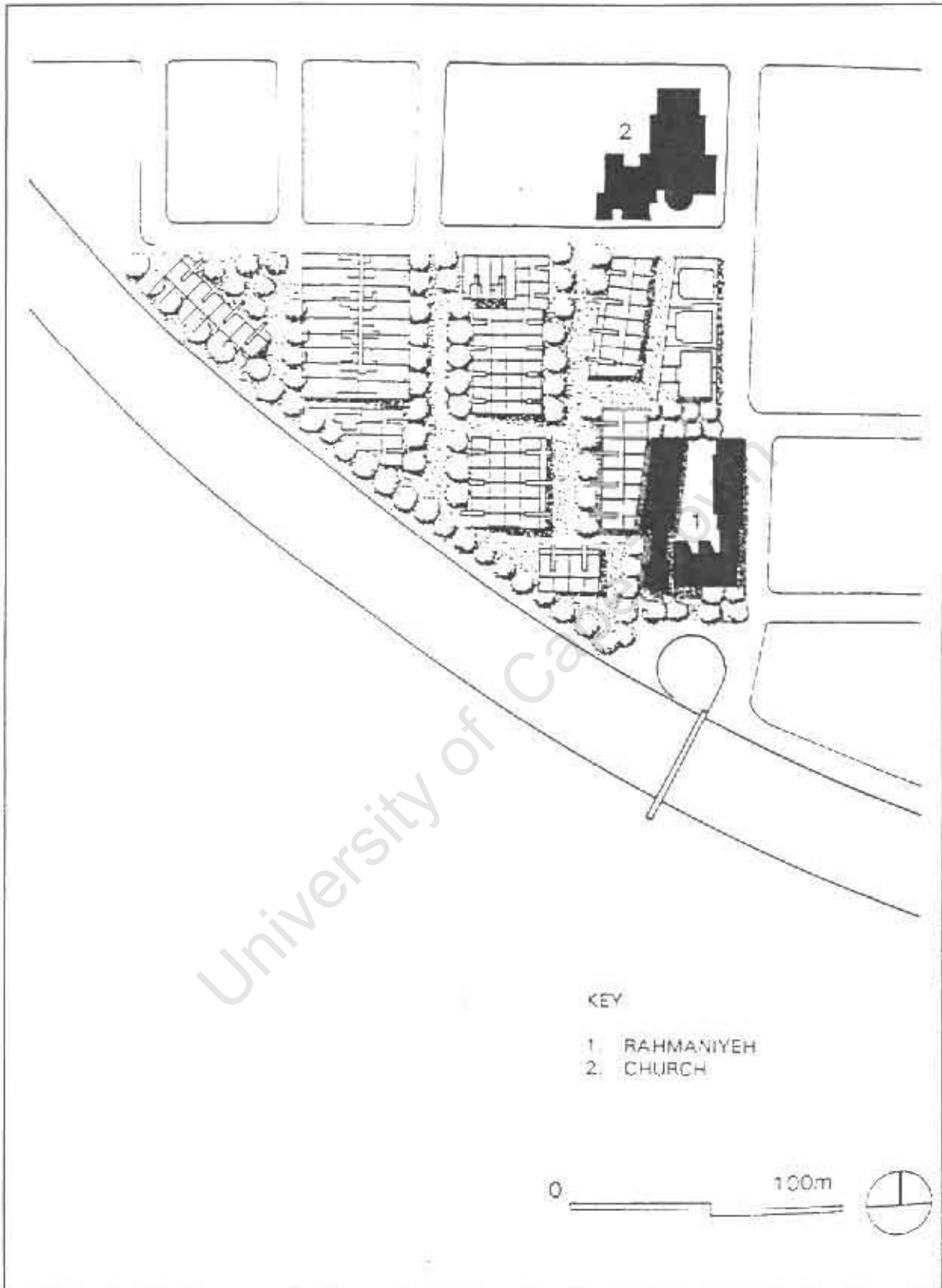


Diagram 4.5b Map showing Springfield Terrace - Spatial quality

Source: Dewar, D. et al. (1998) Public-Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p. 193

The development is very well located on underused land within the existing urban fabric, in contrast to suburban developments on the urban periphery which are such a common phenomenon in South African cities. The first and most important aim of this pilot project was to demonstrate how Cape Town could be compacted. It also demonstrated a number of advantages that are worth mentioning. Some of these advantages include the following:

- There are considerable savings in transport and energy costs. For instance the housing scheme is within walking distance from the Central Business District (refer to Diagram 4.7).
- This ensured that historical investments in social and utility infrastructure were put to good use.
- This creates vibrant local market for small service industries, and,
- this creates high population density thresholds thus ensuring a higher level of patronage for social and commercial facilities.¹⁹⁵

The second aim was to demonstrate how a small parcel of land that is well located and publicly owned (which is common in South African cities) can be acquired for medium-density development, thus resulting in a highly liveable environment. Furthermore, this housing scheme measured a gross density of 156 dwellings units per hectare, or a nett density of 257 dwelling units per hectare. It was also aimed at demonstrating a public-private partnership in housing and to show how cross-subsidization can lower the entry price of housing for low-income tenants.¹⁹⁶

For economic and logistical reasons associated with mobilising state subsidies, Headstart undertook the scheme as the main builder. Headstart was registered as a (not for profit) housing utility company. However, the project was undertaken by three sets of partners: – Headstart Development, the Cape Town City Council, which was the operative Local Authority, and the affected community. The latter included people from the surrounding

¹⁹⁵ Dewar, D. *Settlement Change and Planning in South Africa since 1994* in Blank Architect *Apartheid and After*. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

¹⁹⁶ Dewar, D. et al. (1998) *Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development*, p.187.

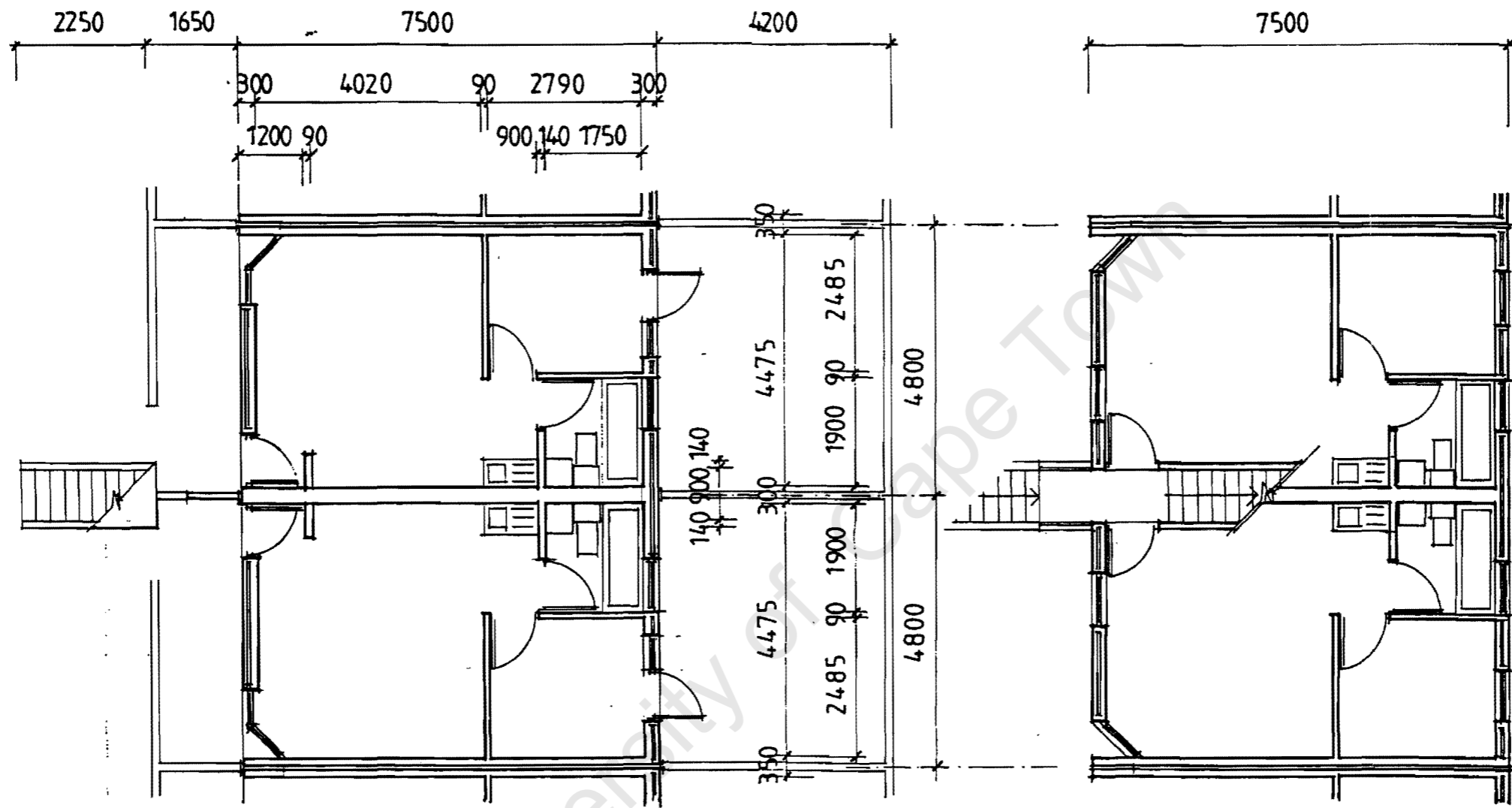
areas and inhabitants (including residents of the pre-existing cottages) in the scheme as they took occupation. The utility company was financed by a combination of grants and low interest loans from the corporate partners in this venture. The initial capital was slightly under R5 million. Members of the Board of Directors for this scheme were drawn from participating companies.¹⁹⁷

In order to ease the financial burden on low-income tenants and buyers, it was proposed to sell housing units on the open market for the highest possible price. The profit generated from this sale could then be used to subsidise the entry price at the lowest level as much as possible. In line with the above, the project aimed to provide accommodation for three categories of the housing market. The first two levels of buyers would be those who qualified for the different subsidies, while the third would be drawn from the open market. It was hoped that this would help provide subsidised accommodation that would be cheap and affordable to rent. Rental accommodation within the inner areas of the city was considered vital for two reasons. Firstly, it was important to offer various types of tenure so that there would be a sufficient choice. Secondly, studies have shown that there is a considerable demand for rental accommodation in inner city areas. After crossing such hurdles in order to achieve these goals, it is unfortunate that this strategy had to be aborted due to the problem of getting a non-governmental agency with the ability to administer and maintain rental accommodation in inner city areas on an on-going basis at that time.¹⁹⁸

The provision of this pilot project represents an innovative attempt to kick-start a new form and structure of urban development in the city of Cape Town. However, the provision of this project met with many obstacles, which could discourage the provision of subsequent projects of this nature in the future. For this reason, the next section conducts an investigation of these obstacles.

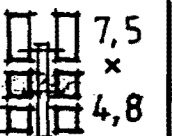
¹⁹⁷ Dewar, D. et al. (1998) Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p.187.

¹⁹⁸ Dewar, D. Settlement Change and Planning in South Africa since 1994 in *Blank Architect Apartheid and After*. Edited by Hilton, J. and Vladislavic, I. Nai Publisher

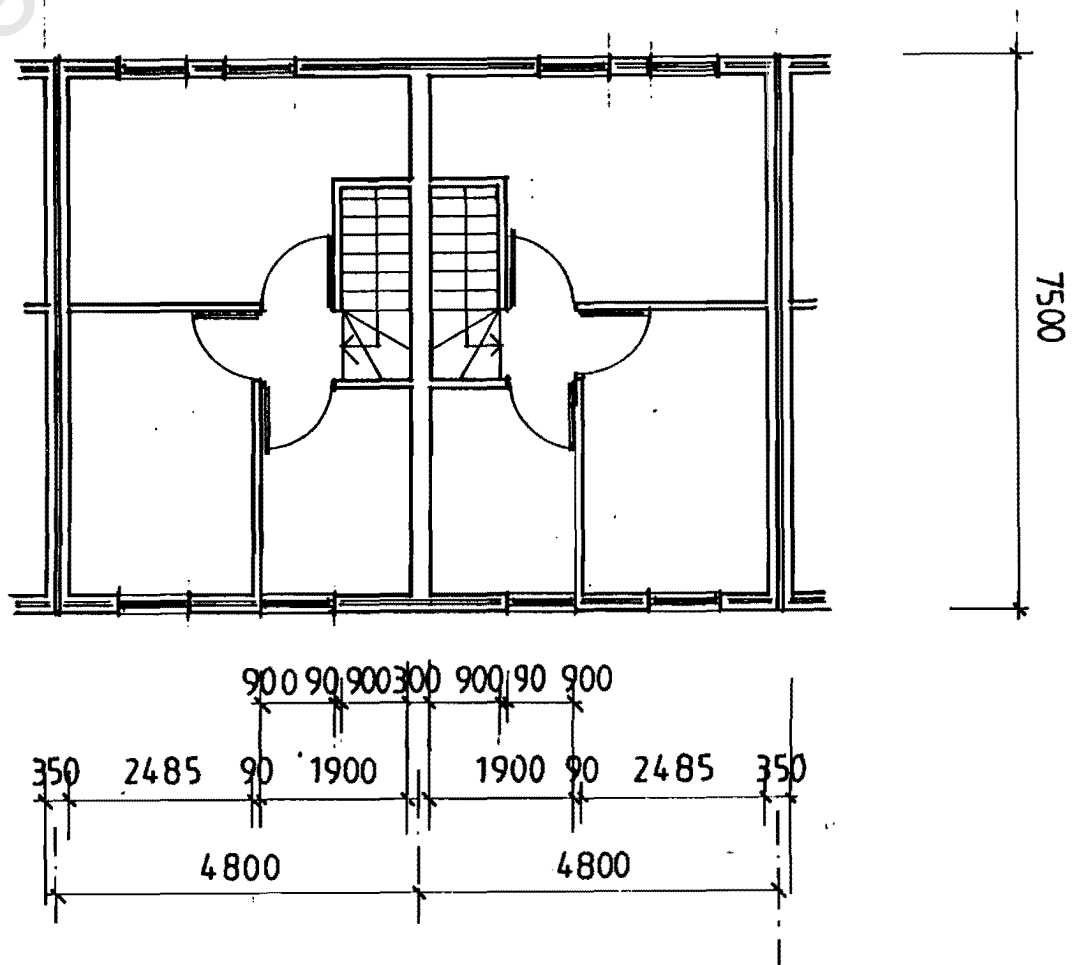
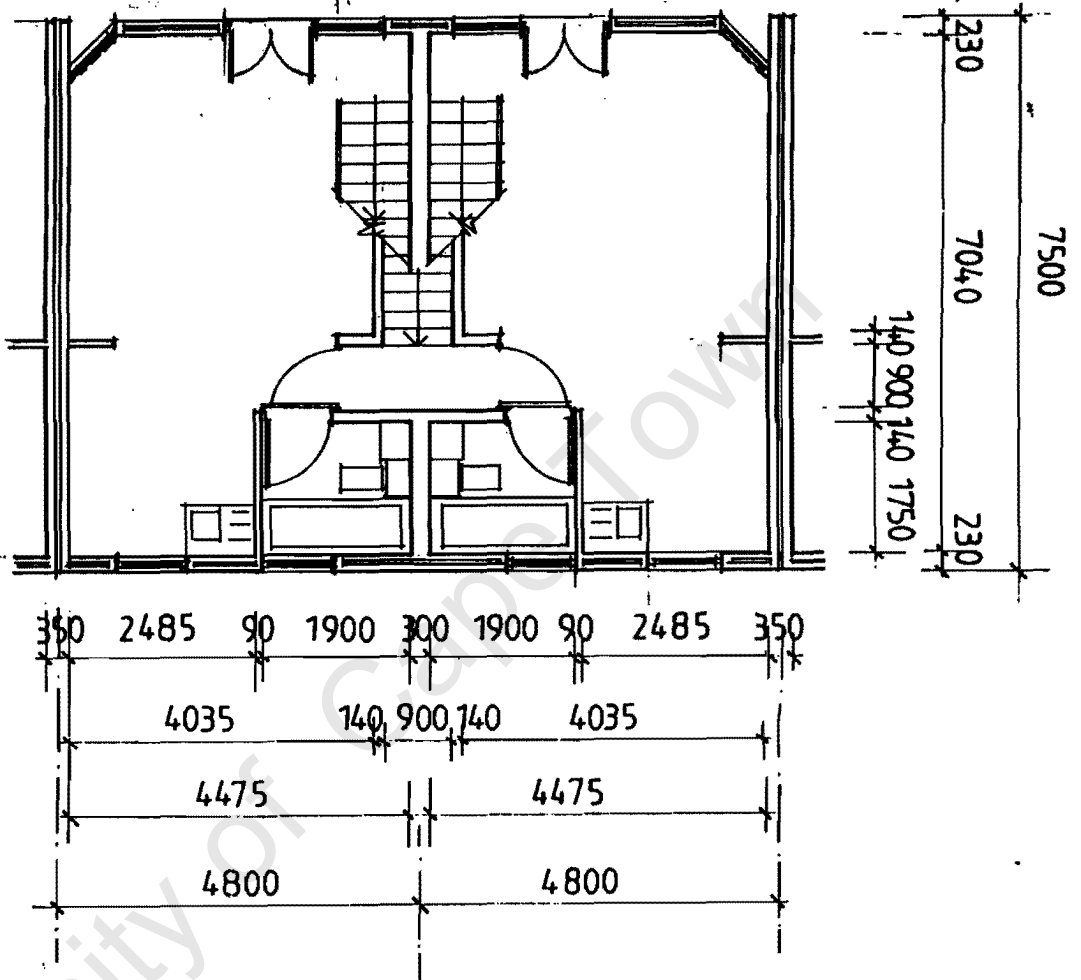


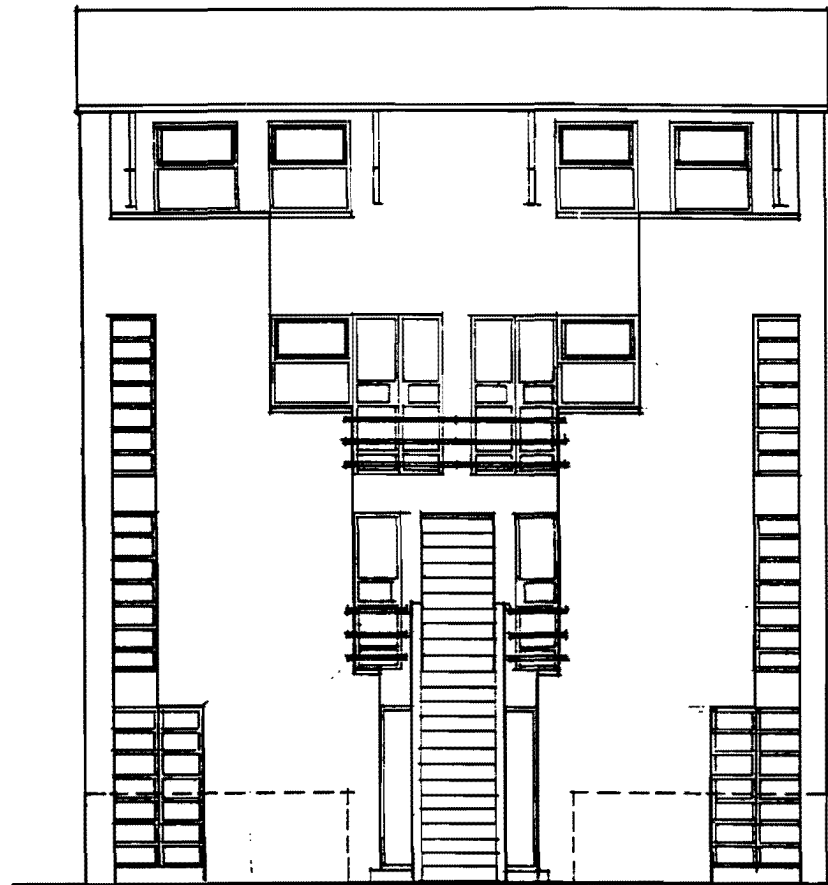
36m² unit on ground level

33,96 m² on level two

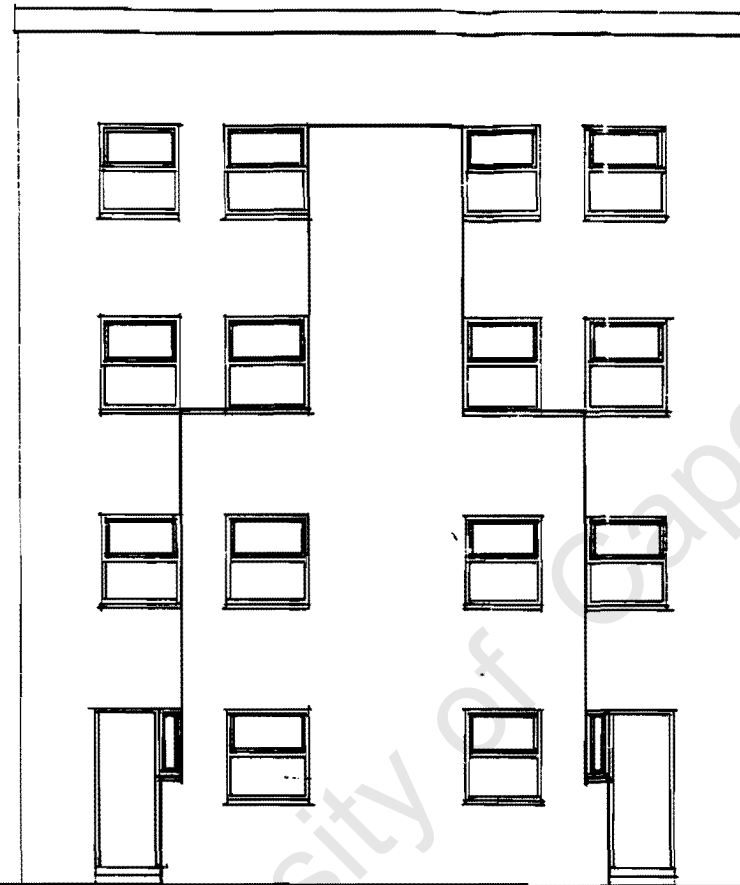


69,56 m² duplex unit on levels 3 & 4

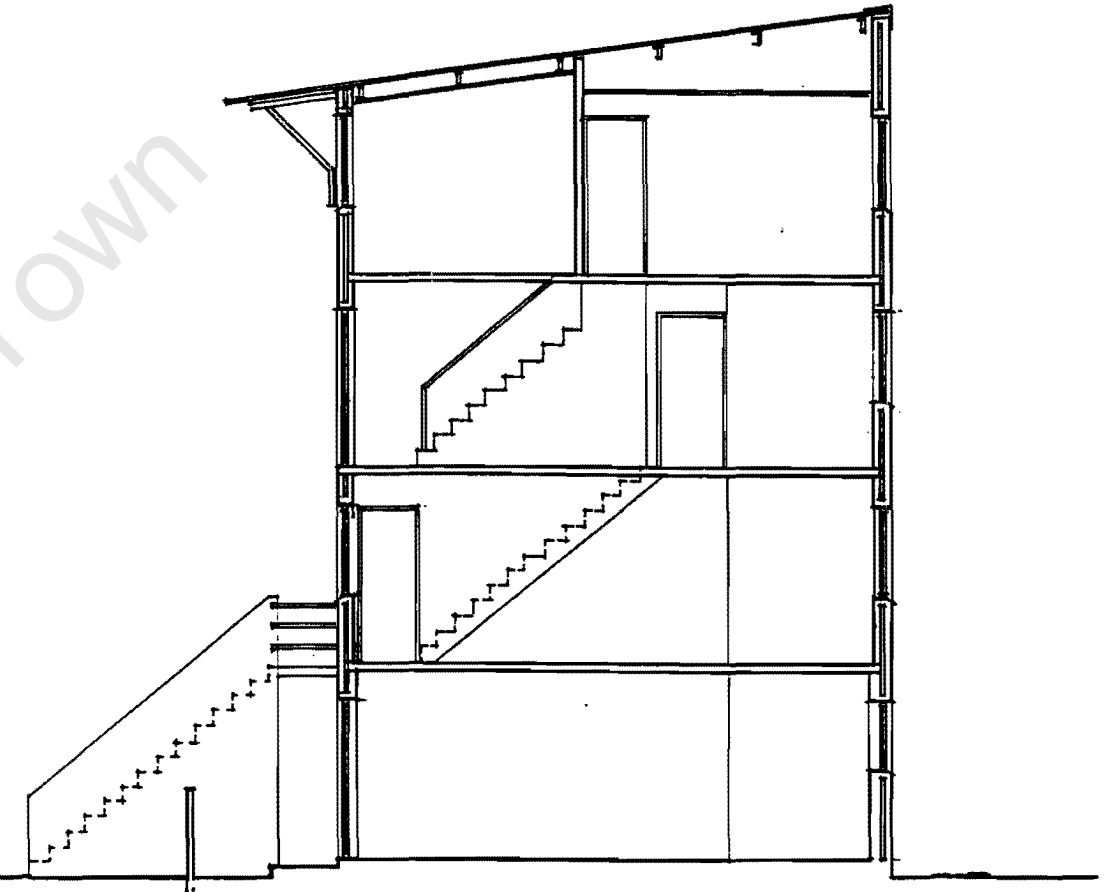




front elevation



rear elevation



section

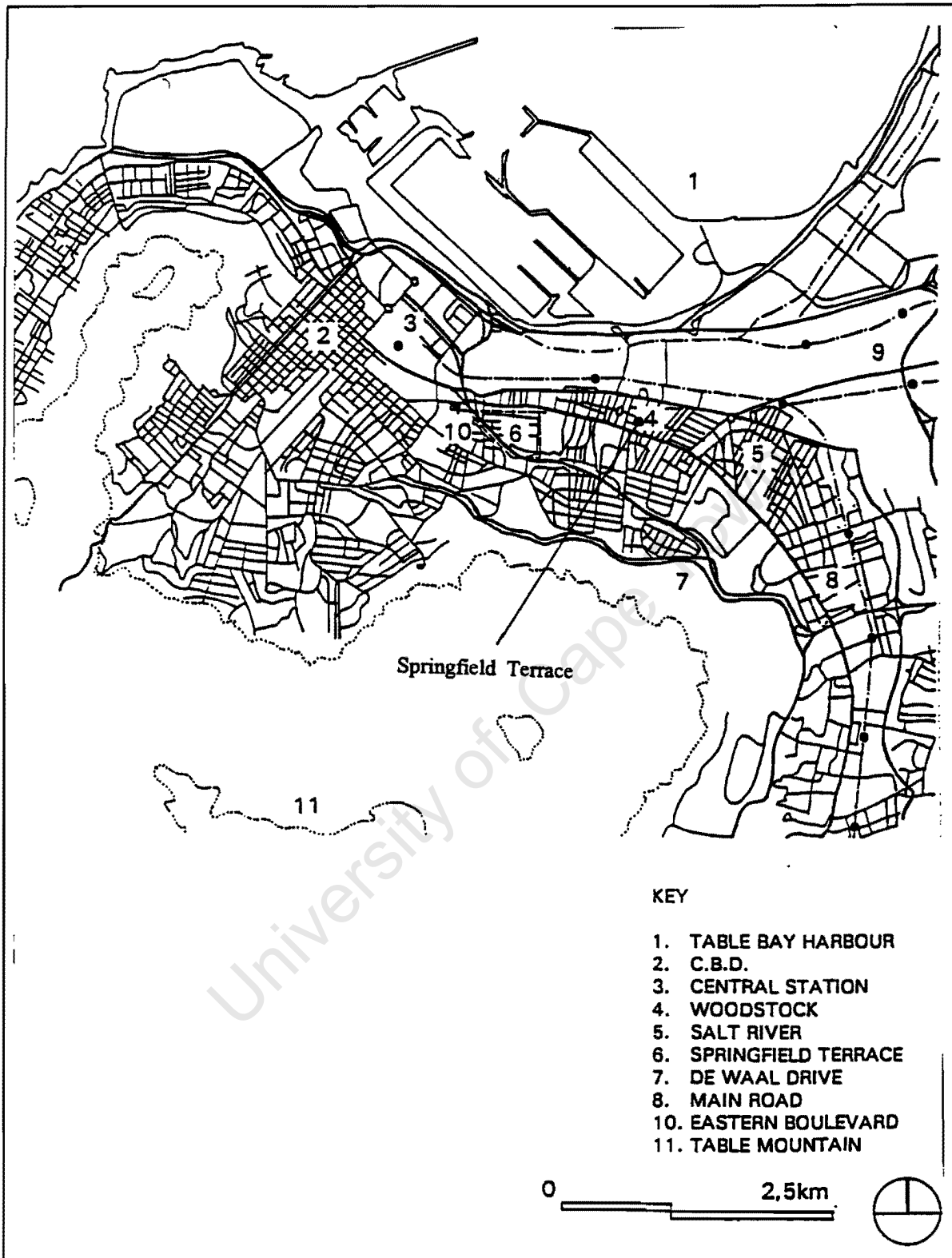


Diagram 4.7 Map showing that Springfield Terrace is a walking distance to the Central Business District of Cape Town

Source: Dewar, D. et al. (1998) Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p.188

4.5 Obstacles against the provision of Low-income Medium-density Housing

This section examines the implementation of Springfield Terrace housing project in terms of those obstacles that made the provision of such medium-density inner-city housing almost impossible or at least very difficult. Furthermore, this examination also focuses on the legislative framework that regulate important components of spatial planning in order to throw more light on the aforementioned issue. However, reference would be made to Springfield Terrace only where appropriate. It should be noted that these obstacles are quite complex, however simple they might appear on the surface.

4.5.1 Obstacles as a result of limited Experience / Perception

Government authorities in charge of housing seem to have limited experiences and negative perceptions of medium-density housing. This can be best illustrated with the chosen case study in Woodstock (Springfield Terrace). The different nature of this scheme challenged many officials in a number of departments within the Cape Town City Council and therefore ran into problems because of the fragmentation of line functions. It was agreed within the Planning Department that this project was to be based on different principles than those which underlay existing regulations and that new ideas were needed. Thus an interdepartmental team was suggested and set-up to fast-track the decision-making process. Unfortunately, this team could not convince other departments (such as those responsible for roads, traffic, fire and cleaning) to participate in the innovation. Incidentally, each department viewed the problem from a different perspective, thereby working independently rather than focusing as a team towards recording maximum success on the scheme. For instance, the main public spaces and courts of the Springfield Terrace housing scheme had to be enlarged because the department concerned with garbage removal strongly requested that a garbage truck must be able to turn around in the courts unhindered.¹⁹⁹ This whole event demonstrates that these departments did not have sufficient experience in handling a project of this nature. This calls for more

¹⁹⁹ Dewar, D. *Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After*. Edited by Hilton, J. and Vladislavic, I. Nai Publisher

effective handling of the matter, otherwise it will discourage the provision of such projects in the future.

4.5.2 Obstacles to Medium-density Development in terms of Land Development

Firstly, the fact that land is acquired according to the ability to pay rather than according to need, low-income housing projects are more often developed on inappropriately located land (which is on the periphery of the city). These obstacles typically prevent inner city infill (or the integration of low-income medium-density development with the city structure) aimed towards compacting the city.²⁰⁰

Secondly, the price of privately owned land in inner city areas is exorbitant and may hinder the acquisition of such land for the provision of low-income medium-density housing. For instance, in the case of Springfield Terrace the privately owned land was acquired for R22,000 at a unit land price of R147 per square meter before servicing, compared to the national rate of R37 per square meter for serviced land in Delft (which is located on the periphery of the city).²⁰¹ This constitutes a big obstacle to densification of inner-city areas, as well as a hindrance to the implementation of a new form of urban development.

Thirdly, there is a lack of a coherent land policy towards outlining responsibilities for the identification, assembly, planning and release of appropriate land for low-income medium-density housing. In addition to this, inconsistencies exist between different government departments and the different tiers of local government on this issue.²⁰²

4.5.3 The Planning Environment, an obstacle to Medium-density Development

Presently, the Development Facilitation Act of 1995 in South Africa advocates compact,

²⁰⁰ Government Gazette, December 1994. White Paper on Housing, p 14

²⁰¹ Dewar, D. et al. (1998) Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p. 190.

²⁰² Government Gazette, December 1994. White Paper on Housing, p 14

according to social status, thus exposing the poor to the problems associated with living on the sprawling edge of the city. Most importantly, this segregation prevents the possibility of cross-subsidisation of housing in favour of low-income earners.

Entrenched planning ideas, biased preferences and planning practices typically resist the implementation of new and different concepts of urban development. As previously mentioned, these ideas drew a lot from the Garden City and Neighbourhood Unit concepts which both support the separation of land uses, low-density development in the form of the suburban model of housing and the strict separation of funding strategies from the private and public sectors.²⁰⁶

In addition, bureaucratic procedures and delays have a negative effect on the provision of medium-density housing. This can best be illustrated with the aid of the Springfield Terrace housing project in Cape Town. After the sketch plans for the construction of this housing project had been submitted, it took a staggering period of nineteen and a half months before these plans could finally be approved. One of the reasons for the delay was that the Council refused to proceed with the rezoning application of the assembled piece of land until the decision about the disposal of public open spaces had been finalised.²⁰⁷

The aforementioned problems were compounded by the need for the Provincial Administration to approve the change of status of the site from public open space to subdivided land before the land could be successfully rezoned. This process became even more complicated and cumbersome as submissions could only be made to the Provincial Administration after the City Council had made a recommendation. The situation further degenerated because the Council was very reluctant to present the proposal for submission until the House of Representative agreed to provide bridging finance. The bridging finance was obtained at an annual rate of 11.25 per cent, as supposed to the prevailing commercial rate of approximately 16-18 per cent. It was furthermore for a five-year period and applied to those portions of the housing section, which catered for

and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

²⁰⁶ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

²⁰⁷ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid

households that qualified for subsidies.²⁰⁸

Obviously, the above issues were – and remain – a hindrance to land infill projects such as the case of Springfield Terrace. They had a negative impact on the process, because they drastically increased the overall development costs through the holding cost of land, rapidly escalating construction cost (probably due to the rate of inflation) and sharply increasing interest rates. Consequently, if the cumbersome process of approval from the side of the local authorities (which was largely responsible for the aforementioned problem) is not resolved, it can discourage the authorities (at the national and provincial levels) from the future provision of low-income medium-density housing. Thus officials and professionals may decide to continue to provide low-density housing, as this is a far more simple process implemented within established and familiar procedures and according to already existing guidelines.

4.5.4 People's Perceptions, an obstacle to the Provision of Medium-density Housing

It would appear that most people around Cape Town prefer low-income suburban detached units to low-income medium-density housing units. This is because most people associate the latter with certain problems. Based on negative associations with apartheid 'township flats' these problems include over-crowding, gangsterism, criminal activities and intrusion on individual privacy (e.g. in places around staircases and between flats refer to Plate 4.3))²⁰⁹. Although these social problems exist in all societies, in this case it appears that they are aggravated by the fact that densities (of population and dwelling units per hectare) are increased without commensurate increases in private space and the quantity of community facilities within such locality. Examples of such developments exist in Lavender Hill and Hanover Park (refer to Diagram 4.8). It is commonly acknowledged that these areas become uniform and unproductive. As a result people are often idle in environments that are not vibrant in social, economic, educational and

and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

²⁰⁸ Dewar, D. et al. (1998) Public/Private Partnership in the Provision of Land for Housing: Report submitted to the Department for International Development, p.199.

²⁰⁹ X, High-density Rise: Perception and Opinions of Tenants, s.n. s.l. s.d.

cultural terms. Amongst other issues this pathology increases the number of people who engage in anti-social behaviour,²¹⁰ confirming the adage that says, “the idle mind is the devil's workshop”.

Some of these perceptions are corroborated by the complaints of those residing in Springfield Terrace. Firstly, residents wished for an appropriate playground for children to play outdoor games such as football and cricket. Although there is a paved open space, this is not appropriate due to the risk that either the windowpanes or windscreens of vehicles parked outside might get damaged from playing football or cricket. Secondly, some of those residing in bigger units on the top floors wished their units were located on the ground floor, given that they had more furniture to move upstairs as compared to those bed-sitters located on the ground floor. Thirdly, some residents on the top floors wished their units had balconies, since they did not have direct access to a natural environment as did those on the ground floor. These are design and planning issues that ought to be taken care of in order to make this housing type more popular and attractive to low-income earners.

²¹⁰ Delft Community Submissions, July 1994. Development Action Group (DAG), p. 4



Plate 4.3 Invasion of privacy around staircases in Lavender Hill.

Source: Plate 4.3 was taken during the course of the research.

University of Cape Town

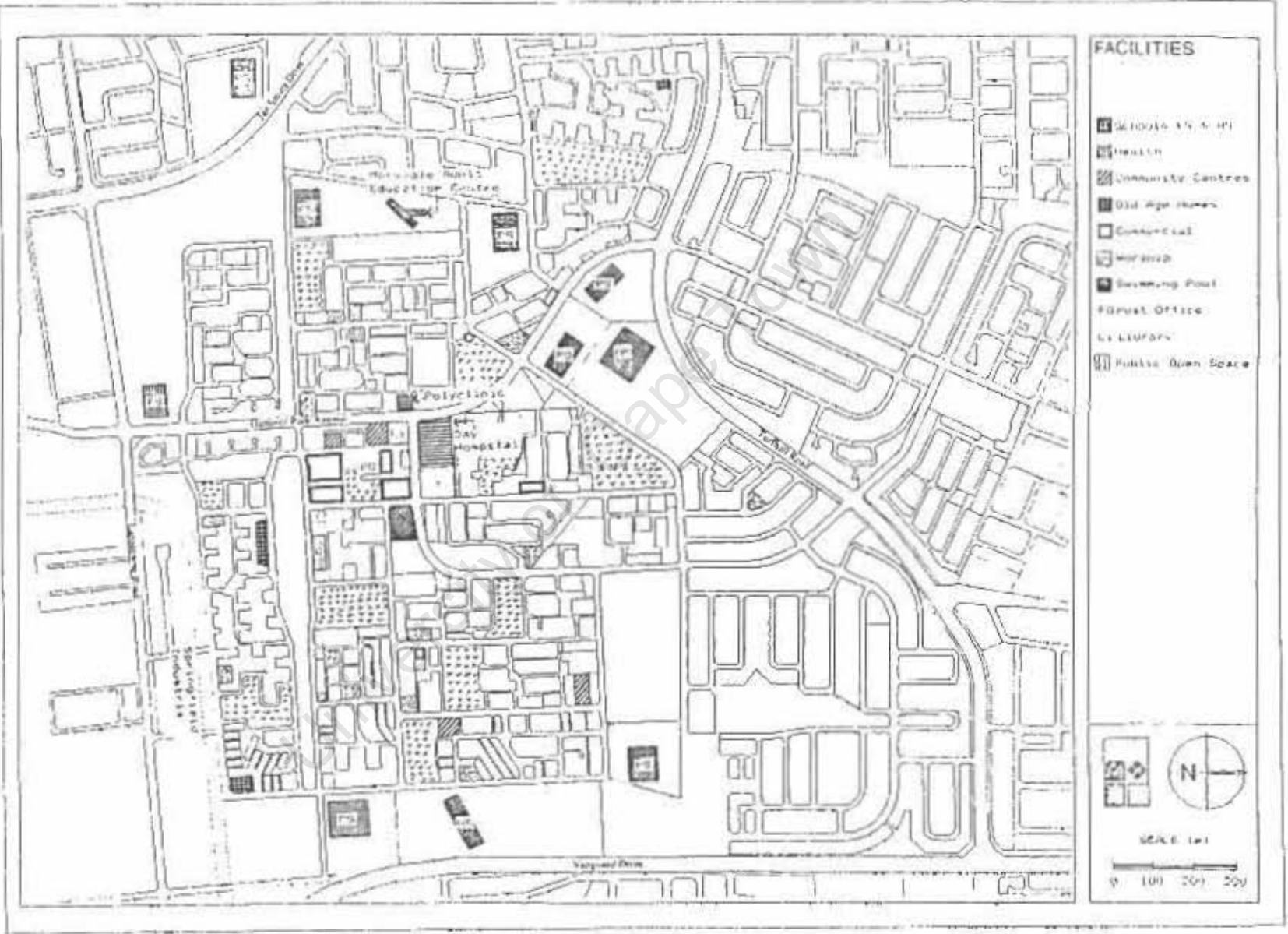


Diagram 4 S Hammer Park and Facilities

Source: Awotona et al (1995), Township in Cape Town, Case study area profiles, Working paper 9.

4.5.5 Obstacles arising from Security of Tenure: Ownership or Rental

The Government of South Africa has acknowledged that security of tenure is a fundamental issue in providing housing to people in need. To this end, the government rejects the elevation of individualised private home ownership above other forms of secure tenure. Thus subsidy policy is designed to provide for the fullest range of tenure options, on the basis of a state contribution to be geared up by top-up funding from sources such as credit / finance, (individual) investment and, when possible, by sweat equity of the owner.²¹¹ In reality, the range of tenure options is not as full as expected because the quality of those dwelling units do not encourage rentals as a form of secure tenure. Thus this section investigates reasons for this occurrence.

At the outset, it is important to state that medium-density development is envisaged to promote mixed-use building in the inner areas of our cities. For such schemes to be viable, it is essential that various types of tenure are on offer so that there can be greater choice and variety. Analysis has shown that considerable demands for rental accommodation exist within inner city areas.²¹² Bearing these two points in mind, this section employs the use of Springfield Terrace and Missionvale housing projects in Port Elizabeth to illustrate how limited finance is a problem to the aforementioned housing type for rentals.

The Springfield Terrace housing project faced the challenge of providing affordable rental stock to tenants within the low-income bracket. The whole problem began with the question of how to make sufficient funds available towards achieving this goal as it was unlikely that tenants wanting to rent accommodation would invest large amounts of their resources to improve finishes. It is vital and more realistic to have the finishes meet a reasonably high standard from the onset, while also being affordable. Two options were explored in a bid to overcome this challenge. The first option was to reduce the size of the units to increase affordability, but this raised the spectre of over-crowding, which

²¹¹ Government Gazette, December 1994. White Paper on Housing, p. 31

²¹² Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, L. NAI Publisher.

would discourage buyers. Alternatively, the high cost of providing each unit would place the units beyond the qualifying limits for subsidies, and rendering them unaffordable to low-income households.²¹³

A more workable approach proposed that the subsidy should be based on rooms rather than units. Thus it was proposed that subsidies should be made available for shared accommodation with common facilities such as bathrooms and kitchen. The arrangement of rooms within each unit was flexible so that they could be easily organised into one-, two- or three-bedroom units. For example, if a household consisted of two female single parents and a married couple, each family qualified for the same room subsidy. However, this led to two problems. The first was architectural – an intrusion on individual privacy around the building and most especially around the shared facilities (such as bathrooms and kitchen). The second problem was getting an institution to administer and maintain the rental accommodation on an on-going basis. The Cape Town City Council would have been the best option, but for a course of action promoted by Government, which meant that high administrative costs had to be paid by a small number of units, thus leading to excessively high rents. Thus the whole idea of rental accommodation was dropped, as there was no institution with the capacity to supply the management services in the inner area of Cape Town City.²¹⁴

In comparison, the cost for completing the prototype one-bedroom unit with toilet and shower in Delft is about R22,000 at current market price, and about R1,222 per square metre. However, these units are poorly finished, very small (about 18 square metres) and thus cannot be properly furnished. In contrast, a corresponding unit in Springfield Terrace, comprising a kitchen, bath and sitting area cost about R54,000 in current market price and about R2,000 per square metre. These units are bigger in size (about 27 square metres) and are finished to a fairly good standard. The difference in price of about R32,000 and R778 per square metre clearly indicate that the subsidy from government

²¹³ Dewar, D. et al. (1998) *Public/Private Partnership in the Provision of Land for Housing: Report* submitted to the Department for International Development, p. 200.

²¹⁴ Dewar, D. *Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After*. Edited by Hilton, J. and Vladislavic, I.. Nai Publisher.

alone is insufficient to provide good quality low-income medium-density housing to attract tenants for rentals.²¹⁵ The same situation pertains to two- and three-bedroom units, where the differences in cost price are R61,000 and R83,720 respectively (refer to Table 4.3).

Nos. of bedrooms	Cost price in Springfield Terrace / Total area.	Cost price in Delft/Total area.	Difference in cost price.	Cost price per square metre in Springfield Terrace.	Cost price per square meter in Delft.
One bedroom.	R54, 000 / 27 m ² .	R22, 000 / 18 m ² .	R32,000	R2,000 / square metre	R1,222 / square metre
Two bedroom	R94, 000 / 54.6 m ² .	R33, 000 / 36 m ² .	R61,000	R1,722 / square metre	R917 / square metre
Three bedroom	R122, 720 / 69.56 m ² .	R39, 600 / 48 m ² .	R83,720	R1,764 / square metre	R825 / square metre.

Table 4.3 Comparison of cost prices between the different residential units in Springfield Terrace and Delft. Source: Drawn during the course of the research.

The Missionvale housing project in Port Elizabeth is employed to throw more light on the aforementioned issue within this section. This low-income medium-density housing scheme was instituted to demonstrate that a more sustainable environment could be achieved through the development of high-density residential units throughout South Africa using state funds only.²¹⁶

There were three categories of dwelling types in the project (refer to Diagrams 4.9a, 4.9b and 4.9c and also Plates 4.4). These included single free-standing units for a family, semi-detached double-storey buildings for two families and four semi-detached double-storey buildings for four families. This project sought remarkable ways of delivering quality housing through planning, engineering and housing standards and methods of project implementation which – was hoped – would be acceptable to both the beneficiary community and the local authority through the use of State capital only (i.e. R15,000 per

²¹⁵ This information was from Evans, Kathy the Quantity Surveyor for the Springfield Terrace Housing Project.

²¹⁶ An Initiative of the Delta Foundation. (1997) High Residential Densities in New Low-income

beneficiary). Furthermore, building cost savings were achieved through the collective use of financial resources, shared servicing and shared party walls, applied in high residential densities. For instance, the subsidy of R15,000 per dwelling unit was combined for two families and later for four families. In the case of combining subsidies for two families an amount of R8,000 was spent on the provision of land and services, while a residual amount of R22,000 was made available for the provision of the top structure. However, in respect of the single free-standing dwelling unit the same subsidy of R15,000 left approximately R9,000 for the top structure after the cost of land and services which amounted to only R6,000 had been deducted. In the grouping of four subsidies for four different beneficiaries, a combined residual amount of R50,000 was realised after land and services cost of R10,000 had been deducted. Despite these innovative ideas, it was impossible to provide dwelling units with reasonable finishes for rental purposes. For instance, these dwelling units were provided without internal walls apart from the bathroom (refer to Diagram 4.8b and 4.8c). All houses had cold water and were provided with a water closet and kitchen sink. The recipient was expected to construct the partition walls as well as provide a bathtub and wash hand basin, as and when finance became available.²¹⁷

Development. Missionvale, Port Elizabeth.

²¹⁷ An Initiative of the Delta Foundation. (1997) High Residential Densities in New Low-income Development. Missionvale, Port Elizabeth.

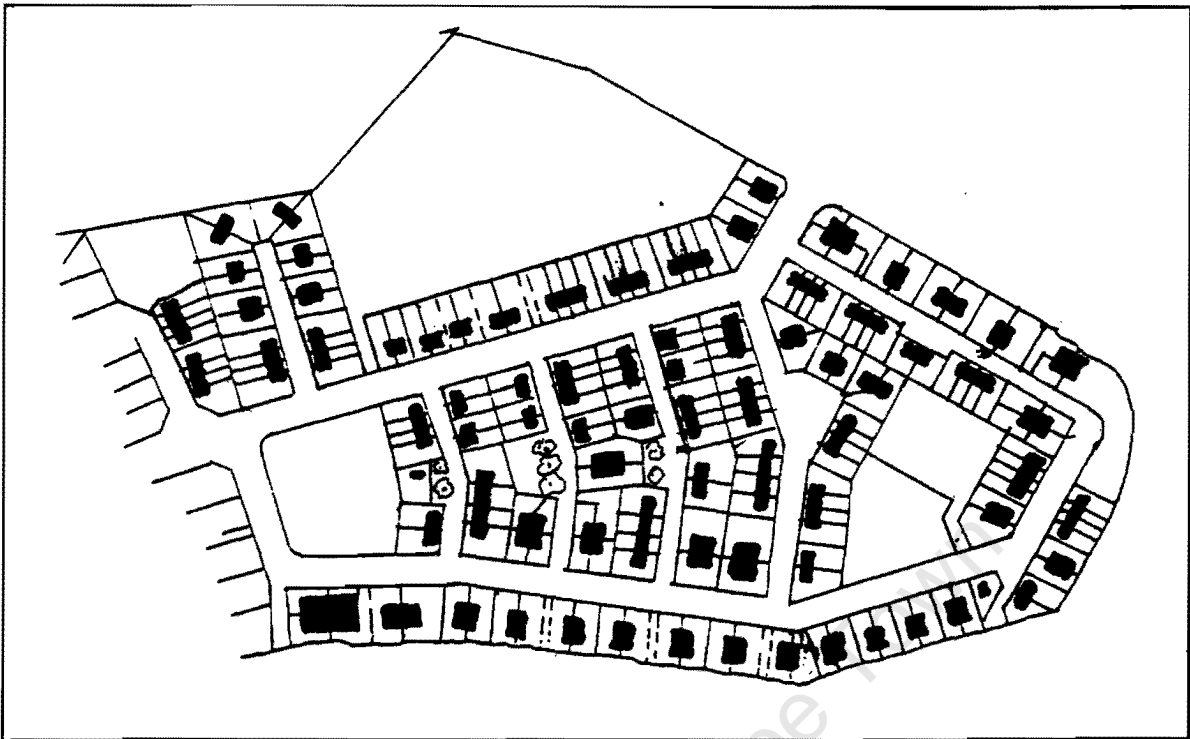


Diagram 4.9a Layout plan for Missionvale housing initiative

Source: An Initiative of the Delta Foundation. (1997) High Residential in New Low-Income Development Missionvale, Port Elizabeth

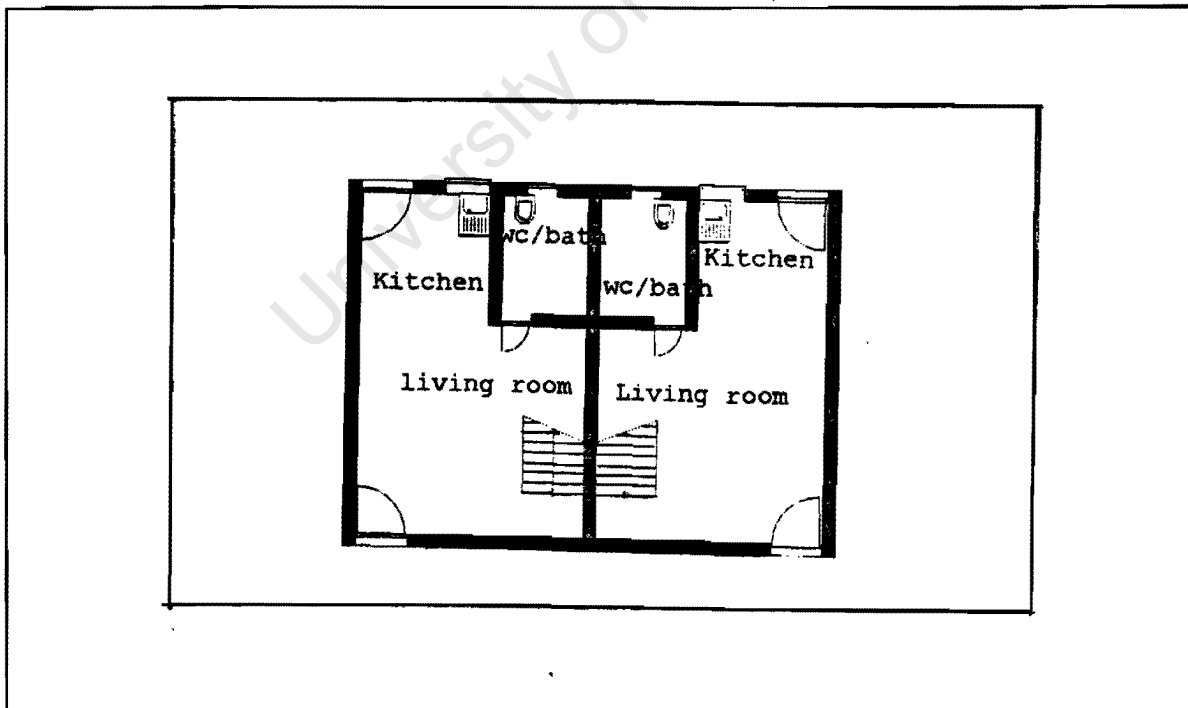


Diagram 4.9b The ground floor plan of a low-income medium density unit in Missionvale, Port Elizabeth.

Source An Initiative of the Delta Foundation. (1997) High Residential in New Low-Income Development Missionvale, Port Elizabeth

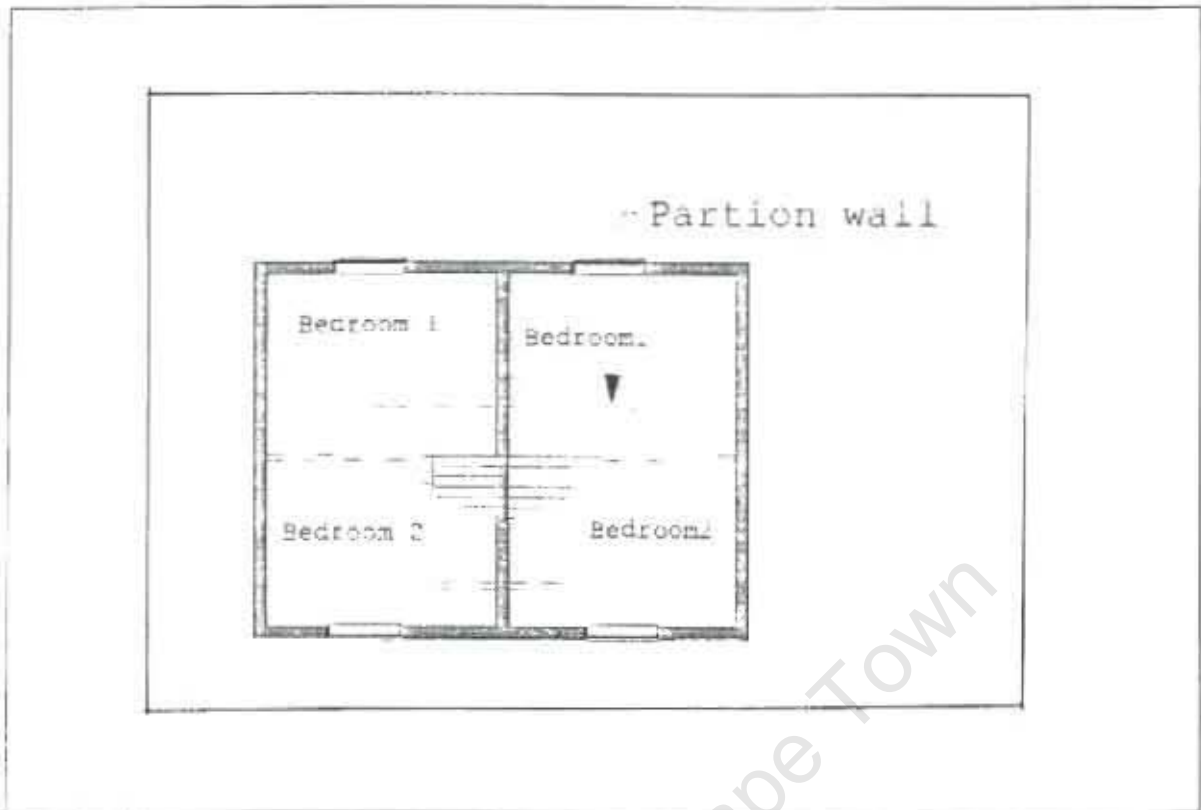


Diagram 4.9c The first floor plan of a low-income medium-density unit in Missionvale, Port Elizabeth.
 Source: An Initiative of the Delta Foundation. (1997) *High Residential in New Low-Income Development Missionvale, Port Elizabeth*

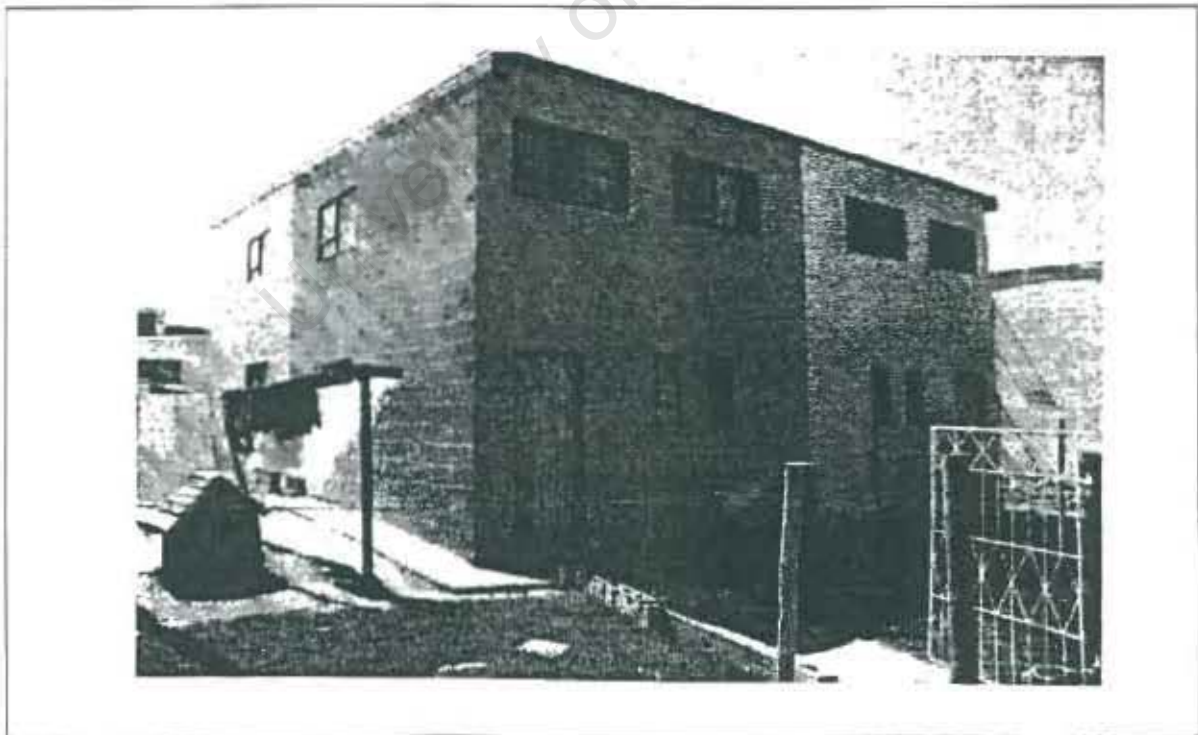


Plate 4.4 One of the low-income medium-density unit in Missionvale, Port Elizabeth.
 Source: From Delta Foundations, Port Elizabeth, Eastern Cape.

Investigations into the obstacles hindering the provision of low-income medium-density housing for rentals reveal three factors to be at the root of the problem. The first is that if the cost of providing a unit with the required quality of finishes is too high, this in itself places the units beyond the qualifying limits for subsidies, therefore making them unaffordable to low-income households. Secondly, the subsidy that is allocated by the government is not sufficient to ensure that these units meet the required building standards. Thirdly, even when the aforementioned problems were taken care of, the lack of an institution to administer and maintain rental accommodation in inner city areas of Cape Town prevented rental accommodation from becoming a reality in Springfield Terrace. Fourthly, if the option of shared accommodation (employed in Springfield Terrace housing) were to be adopted, the problem of intrusion on individual privacy most especially in the areas of shared facilities such as kitchens and bathrooms, would discourage tenants from residing in them. The use of medium-density development as a measure to compact the already sprawling city may be somewhat difficult to achieve, if these problems are not tackled effectively.

4.5.6 Obstacle arising from a weak partnership between the public and the private sector

The last but not the least of these obstacles can be best illustrated by using the partnership between the local authorities that were in charge of the Springfield Terrace housing project and a non-profit organisation. This was the first time the local authority went into partnership with a private sector (non-profit organisation) in the area of land and housing. Consequently, some of the concerned authorities (in the public sector) could not readily trust the private sector because some large corporations funded Headstart. Therefore, some felt that the non-profit motive was established for ulterior purposes. The weak partnership degenerated as a result of two major problems. The first was a series of functional breakdowns. The second was a lack of clarity about the roles and responsibilities of both parties involved. For instance, there was confusion as to who should finance the public spaces around the housing scheme. The lack of clarity about

duties and maintenance also resulted in confusion and delays in the approval process.²¹⁸

4.6 Conclusion

As has been demonstrated above, examination of these two different case studies – viz the Delft low-density housing project and the Springfield terrace medium-density housing project – reveal those factors that have solely facilitated the free-standing unit and associated factors that have militated against the provision of low-income medium-density housing respectively. Furthermore, it appears that it is almost impossible to successfully implement the proposal of the Development Facilitation Act of 1995 without encountering major problems. The Act calls for the establishment of a humanistic and environmental set of normative principles for the realisation of settlements that are compact, integrated and that aspire towards sustainable development.

However, the present situation that seems to favour the provision of low-income low-density development in Cape Town can be broadly traced to three conditions. The first is the absence of a coherent set of policies to implement a change of paradigm for proposed township developments through correcting the institutional framework (refer to section 4.5.3). The second problem refers to institutional frameworks and mindsets that have developed over the years in favour of a housing type that has been responsible for urban sprawl in South African cities such as Cape Town. The third problem refers to the lack of a traditional working partnership between public and private sectors.

One might argue that the Springfield Terrace housing project was built in the early 1990's and that, as such, any findings in relation to this project may not be current. This is not true, however, because the general operating climate from the time when this housing scheme was constructed is still more or less the same today²¹⁹. Low-density sprawl, too, is still the predominant form of low-income housing provided around Cape

²¹⁸ Dewar, D. *Settlement Change and Planning in South Africa since 1994* in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

²¹⁹ Dewar, D. *Settlement Change and Planning in South Africa since 1994* in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

Town. Examples include new dwelling units in Delft (i.e. towns 1-7) and some units in areas of Oceanview.

The next chapter thus focuses on the changes that are necessary in order for medium-density development to become a reality in South African cities such as Cape Town. In addition to the above issues, these changes should also facilitate the use of medium-density housing for compacting, integrating and achieving mixed land uses and a sustainable development in Cape Town.

University of Cape Town

CHAPTER FIVE

5.0 CASE STUDIES: THE PROSPECTS AND OPPORTUNITIES FOR MEDIUM-DENSITY HOUSING

5.1 Introduction

At first glance the prospect for providing low-income medium-density housing in South African cities in general and in Cape Town specifically seems extremely limited. The prevailing attitudes of local authorities and conservative planners, as well as the current state housing and funding policy all seem unable to accommodate any approach that is different to the "single house / single plot" paradigm.

However, the emerging conditions of cities in developing countries, especially in Africa and specifically South Africa, require a different form of urban intervention. Structural poverty, homelessness and unemployment are conditions that are becoming endemic. As poorer members of our society begin to occupy inner city land as well as buildings, and as the attempts to contain them in dispersed settlements on the periphery of our cities are beginning to fail, the need to revise standard age-old strategies will become apparent. Both the state and private (especially not-for-profit organisation) sectors will sooner, rather than later, have to intervene in a meaningful manner.

If the future of our society's survival depends on adopting environmental and urban strategies that have to be sustainable, then a paradigm shift will have to take place. This shift will require a determined political will on the part of governments at national, regional and local levels that would have to critically re-examine existing policies and practices.

This last chapter discussed those factors that militate against the provision of low-income medium-density housing and its use to achieve a compact, integrated and sustainable urban development in South African cities with specially reference to Cape Town. These

factors are complex and have permeated the entire system and thus the predominant form of development remains suburban housing with large sprawling low-income residential areas. Furthermore, these low-income residential areas are separated from other economic, social and recreational activities. In the end, such development is unlikely to kick-start the economy but will certainly lead to urban inefficiency.²²⁰

However, what is needed is sustainable urban development structured to densify and absorb city growth – in a compact, integrated manner and in a way that facilitates mixed land uses which will in turn promote greater efficiency and economic growth. Furthermore, new low-income housing schemes should be located in such a way that they benefit from under-utilised facilities in inner-city areas. For these reasons this chapter explores the changes that are required to facilitate the aforementioned type of urban development. These changes should be realistic and achievable, otherwise the desired form of urban development may not take place in the near future.

5.2 Changes to facilitate the Provision of Low-income Medium-density Housing and its use to achieve a new Urban Development

In order to explore the prospects for a new form of urban housing and a new form and structure of urban development, various specific solutions to the obstacles identified in the previous chapter will be suggested herein. These suggestions focus on the provision of urban housing from the planning to the execution stages as well as on other critical issues.

However, before discussing the various suggestions and issues as these affect the provision of more appropriate housing, brief mention needs to be made of their role and limitations in the development of sustainable urban environments. Clearly the development of sustainable environments encompasses more than just the provision of housing. It requires the systematic integration of various disciplines and products concerned with the built environment. Furthermore, it demands the deliberate and

²²⁰ Prinsloo, I. et al (1994) Presidential Project-Delft Housing Investigation

concerted intervention of government as the protector of what is good for society in implementing appropriate strategies. The questions of compaction, consolidation, integration and sustainability involve many political, economic and social issues on which viable strategies will have to be based. The provision of housing is but one of the many elements of city making that need to be considered in developing a sustainable built environment.

The following suggestions are offered as ways to overcome some of the obstacles that have until now prevented the implementation of low-income medium-density housing in South African cities.

5.2.1 The Need for Political Will

The housing question, as it has been understood and discussed thus far, is primarily a political question. In the various ways in which housing has been conceived of at different times historically and in different contexts, the role of government or the state has always been central. The provision of housing for the urban poor, or the lack thereof, is fundamentally a political decision in as much as it affects entire cities and regions. Currently, the government of South Africa has changed its role from a provider of low-income housing to being a facilitator.²²¹ Consequently the growth of cities has continued to be more or less uncoordinated and expensive to service and maintain, while the urban poor are slowly but surely more and more at a disadvantage in terms of access to better housing and a whole range of facilities and amenities.

With increases in the populations of cities, the likelihood of overcrowding among the urban poor becomes very high, especially if urgent attention is not paid to the problem. Furthermore, the above situation would make the control of diseases in such overcrowded areas very difficult and expensive, should there be an outbreak of any epidemic. The provision of appropriate housing is an issue that cannot entirely be left to those seeking

²²¹ Adelaja, A. Urban Future 2000 conference at the Witswaterstrand University, Johannesburg. 10th-14th July, 2000.

shelter or to the mechanisms of the (free) market alone. More so, that the private sector is discouraged from investing in low-income housing due to the risks involved.²²² At some point or other the government will have to intervene. Therefore, in order to overcome some of the obstacles preventing medium-density housing, there needs to be political will on behalf of those in political power to want to deal with the issue. Communities, people organisations and housing professionals need to agitate for this expression of political will.

5.2.2 Innovative ways to acquire funds for the provision of rental accommodation in Low-Income Medium-Density Housing

Section 4.5.5 of Chapter 4 employed the use of two different pilot projects to illustrate how impossible it is to provide rental accommodation in low-income medium-density housing using only the present subsidy from Government alone. This section employs two new case studies to demonstrate the changes or innovation that is required to solve this problem. The two different case studies are the housing schemes in Germiston, Gauteng and in Red Location, Port Elizabeth.

- **The housing scheme in Germiston, Gauteng**

The institutional housing scheme in Germiston, Gauteng has recently been completed and comprises low-income medium-density housing which is proving to be successful. The scheme includes a method of delivering various types of conventional housing to low-income earners who do not have access to mortgage finance. This form of housing scheme has been in use for about a hundred and fifty years in Europe. Furthermore, it appears to have been successful particularly in the Netherlands where over fifty percent of the population has benefited from the project. However, this programme is considered to be in its infant stages in South Africa where the Nationale Wooningraad (N.W.R.) is currently assisting several local authorities and other bodies to set up their own housing

²²² Khan, D. M. (1997) Case Study Cape Town, Planning and Design in the 1990's, pp. 17-18.

associations.²²³

The conceptual framework is that housing associations are eligible for a national subsidy of about R15,000 for each of their qualified residents who are basically low-income earners (i.e. those who earn less than R3,500 per month). The housing association is further required to raise a minimum of another 66% of the funding to provide a residential unit of at least R45,000, although the general trend is to deliver units of approximately R90,000 to beneficiaries. Currently, the only reliable sources of top-up funding are Trade Unions, employers and the National Housing Fund Corporation (N.H.F.C.). With this process in place, it has enabled the housing authority to deliver a high standard unit with an area of 40-75 square metres for rents ranging from R500 to R900 per month. As an alternative, the provision of low-income medium-density housing would be easily achieved if funds from international agencies materialised. This option, which depends upon the correct mix of funding packages is believed to be a functional system that makes houses affordable for the urban poor. In order to facilitate the smooth and effective running of the institutional housing scheme, it is recommended that a joint venture be structured to make loans available at very low inflation-linked interest rates.²²⁴ (Please refer to Diagrams 5.1a, 5.1 b, 5.1c. and Plate 5.1)

²²³ Sithembe Development Facilitation (1989) Proposal for the Development of Institutional Housing in South Africa, p. 1.

²²⁴ Sithembe Development Facilitation (1989) Proposal for the Development of Institutional Housing in South Africa, pp. 2-4

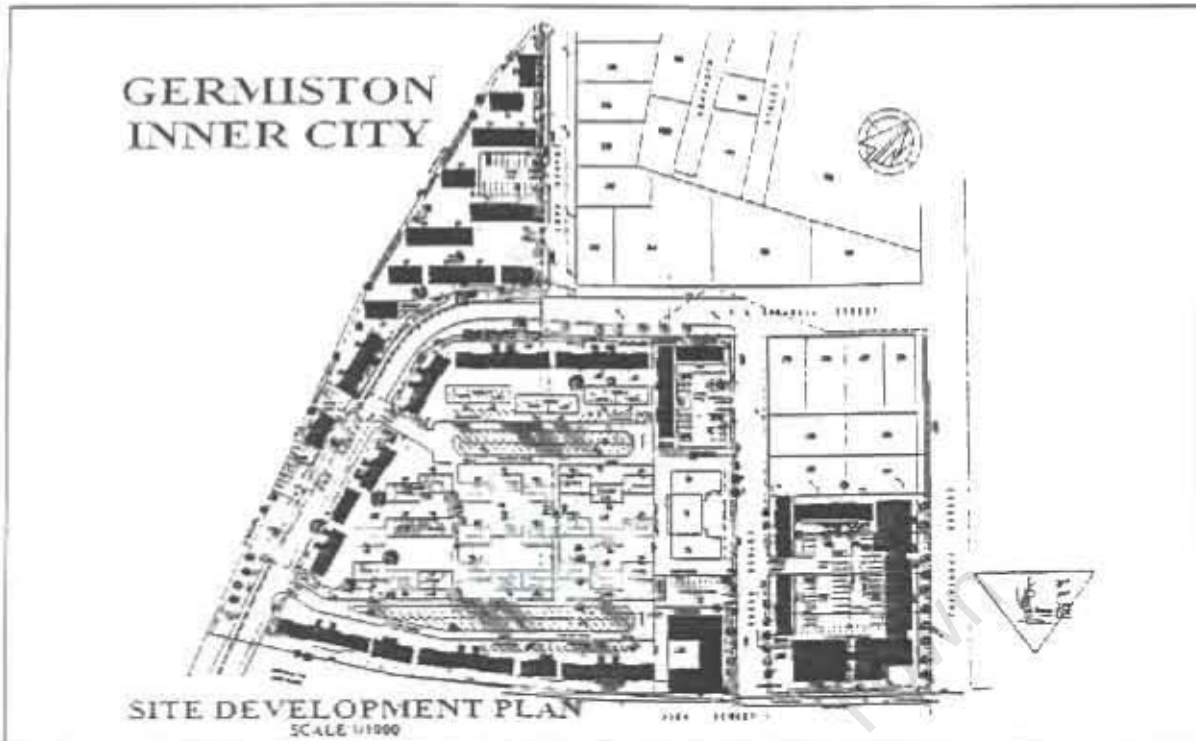


Diagram 5.1a Layout Plan for low-income Housing Scheme in Germiston, Gauteng

Source: Sithembe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa



Diagram 5.1b Ground floor plan of Low-income Medium-density units in Germiston, Gauteng

Source: Sithembe Development Facilitation (1989) Proposal for the Development of Institutional Housing in South Africa.

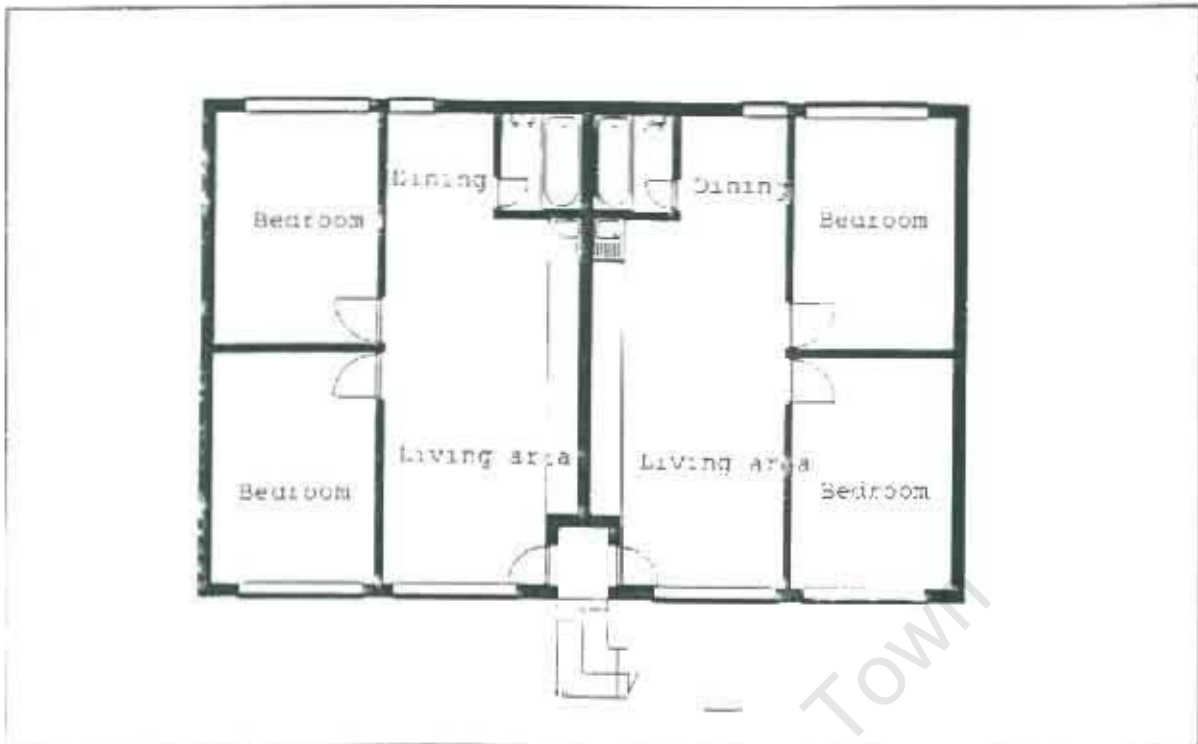


Diagram 5.1c First floor plan of Low-income Medium-density Units in Germiston, Gauteng

Source: Sibembe Development Facilitation (1989) Proposal for the Development of Institutional Housing in South Africa



Plate 5.1 Double storey residential building in Germiston, Gauteng

Source: From Charles Croeser, at the Cape Town City Council

Over the past five years, the government of South Africa has developed priority policies and funding mechanisms to make institutional housing an effective vehicle for the delivery of this type of housing. To this end, partnerships between the public and private sectors were set up. The Local Authority represents the public sector, while the Housing Association and the different organisations funding the project represent the private sector. The different roles or duties of these two sectors, however, were clearly defined at the outset. The Housing Association was in charge of several duties, amongst which were:

- to establish the Board of Directors and constitute itself;
- to take over the land, the development process and the professional team;
- to instruct and authorise the professional team to submit applications for subsidies and top-up funding;
- to instruct the professional team on approval, to finalise planning, marketing and contracts;
- to enter into joint venture agreements;
- to appoint management teams;
- to place residents in the development, collect rental and services charges, maintain completed portions of the development and to seek ways to improve the housing environment, using solid business principles; and,
- to apply to the Housing Institution Fund to a set up grant to refund professionals fees expected to date.²²⁵

The Local Authority was responsible for the following duties:

- to make available market data as well as a waiting list of suitable beneficiaries;
- to approve the detailed proposal, feasibility study and business plan;
- to provide a letter of support for the housing association's subsidy and funding applications;
- to nominate representatives to serve on the Board of Directors of the housing association on approval of subsidies and funding;

²²⁵ Sithembe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p. 9.

- to take over some shares in the Housing Association once land has been transferred. The balance of the shares generally go to the funders and other role players;
- to make alternative existing administrative facilities available to assist the Housing Association. It may charge the Housing Association for these services, and,
- to attend regular board meetings of the Housing Association.²²⁶

As has been stated earlier, the most essential component of a successful housing institution is the correct mix of funding packages. This is believed to be what makes the homes affordable. For the sake of clarity the various mixes of funding packages and the conditions attached to them require further examination and explanation.

Government subsidy

Funding from the government stands at R15,000 for all institutional beneficiaries who earn less than R3,500 per month. However, in certain circumstances this amount is increased to R17,500. It is expected that the above amount may be increased to R16,000 and R18,000 in the near future. It is important to note that this subsidy is a grant to a housing institution that delivers rental or 'rent to buy' housing to qualified beneficiaries. If the beneficiary buys this unit (after 4 years minimum) he or she gets the credit benefit of the subsidy irrespective of his salary at the date of purchase. However, accessing this funding is often very complex and time consuming, if successful it enhances the quality of life in any inner city or suburban environment²²⁷.

Housing Institution Development Fund (H.I.D.F.)

The funds from this institution amount to R2 million per project. It attracts an interest of 2.25% above the Consumer Price Index (C.P.I.) and must be repaid within 10-15 years. This loan is usually granted with an interest holiday of one year from the date of

²²⁶ Sitherbe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p. 8

²²⁷ Sitherbe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p. 5

completion of the project. Currently, the effective rate is 9.1% while the loan must be matched by an equal financial or equity input by the developer on similar terms. The loan is aimed at setting up housing institutions.²²⁸

Joint Venture Development Fund

Unlike the development loan scheme, this is a relatively short-term funding structure at Customer Price Index (C.P.I.) rate plus 2% to bridge the development process. The amount of the loan under this institution is negotiable up to 70% of the development value. Considering that this is a relatively new Fund, there is scope for negotiating a longer term of payment as well as amending rules to suit a particular application.²²⁹

By using a cocktail of the above sources, the Germiston project has achieved first year profitability, through charging gross rentals of approximately R100 per month per R1,000 value of housing delivered for subsidy residents. Unsubsidised units would be required to pay slightly more. However, the main problem in this scheme is the growing uncertainty about the availability of subsidies, the lack of which will affect rentals adversely, particularly in the lower-income categories.²³⁰

• **Housing in Red Location, Port Elizabeth**

This project illustrates how funds from the local government and the Swedish International Aid Organisation and PELIP (a not-for-profit private organisation) were effectively used to provide low-income medium-density housing in Red Location, Port Elizabeth. Even where finance is readily available, the fundamental role of architecture in contributing towards a better world for people to live in, especially with regards to creating good urban living environments in terms of health, economic growth and

²²⁸ Sithembe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p.5.

²²⁹ Sithembe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p.5.

²³⁰ Sithembe Development Facilitation. (1989) Proposal for the Development of Institutional Housing in South Africa, p.5.

cultural upliftment cannot be over-emphasised.²³¹

PELIP, a non-profitable housing development company located in Port Elizabeth commissioned this housing scheme, which was sponsored by two different bodies (i.e. the Port Elizabeth Transitional Local Council and the Swedish International Development Corporation Agency). A bilateral agreement between the governments of South Africa and Sweden resulted in the setting up of a non-profitable development company to develop and implement initiatives that would assist communities in accessing good quality housing. This project was aimed at shifting the values and expectations of both institutions and ordinary citizens who have come to believe that good housing comes in only one form, namely a single dwelling unit on a plot of land.²³²

The Red Location housing project was deliberately located in a vibrant area of the township to promote mixed-use development. The housing project was consciously integrated with public and commercial buildings to demonstrate their necessary co-existence. The architectural design revealed that good attempt to address the issue of privacy and place-making had been considered. For example, public and semi-private zones were created in front of the houses with a private backyard space. This was achieved on a small plot of land ranging from 75 to 90 square metres, while the house sizes range from 17 to 60 square metres. The basic house size of 32 square metres complies with the housing subsidy cost limits (i.e. about R15,000 per family). In addition, the sharing of common walls (i.e. party walls) reduced costs considerably. In terms of housing choice, there was an attempt within a fairly narrow band of opportunity to offer freedom of choice. This was achieved in the following ways:²³³

Firstly, the housing project was designed to offer more than family accommodation. A portion of the ground floor area was to be used as shops and light industrial space as well as rental accommodation. This was done with the hope that the occupants of the houses

²³¹ *Journal of SA Architects*, Nov./Dec. 1999, p. 28.

²³² *Journal of SA Architects*, Nov./Dec. 1999, pp. 28-29.

²³³ *Journal of SA Architects*, Nov./Dec. 1999, pp. 28-29.

might use the space in a productive manner to generate some form of income.²³⁴ (Refer to Diagrams 5.2a, 5.2b, 5.2c and Plate 5.2)

Secondly, there was an opportunity for the residential units to expand or contract depending upon the lifecycle needs or stages of the respective families. This was made possible by positioning a staircase on the outside of the house, which could link the different storeys, if necessary. However, the position of the staircase also provided a variety of different ways of using the ground, first and second floors. For example, as a result of these stairs the different floors could be used independently of each other or together, creating one single large house. In this manner the architects were able to design a variety of different spaces ranging from apartments with an area of 16 square metres to three- or four-bedroom family houses of 60 square metres. Furthermore, opportunities for rented accommodation were made available, and these could at the bottom end of the spectrum, include single students and, at the top end of the spectrum, large extended families. The design also created an opportunity for pensioner's housing to be constructed in the form of backyard rooms.²³⁵

Thirdly, the rear space and the materials used for the construction of the back walls of the houses allow for easy expansion of the units by the homeowners. Typically, the back wall was made of corrugated sheeting which allow for both easy dismantling of the wall and the reuse of the walling material. Therefore the design and the use of the material both acknowledge that the first move the house owner would probably make was to expand his or her home by building onto the back of the house.²³⁶

²³⁴ *Journal of SA Architects*, Nov./Dec. 1999, pp. 28-29.

²³⁵ *Journal of SA Architects*, Nov./Dec. 1999.

²³⁶ *Journal of SA Architects*, Nov./Dec. 1999.

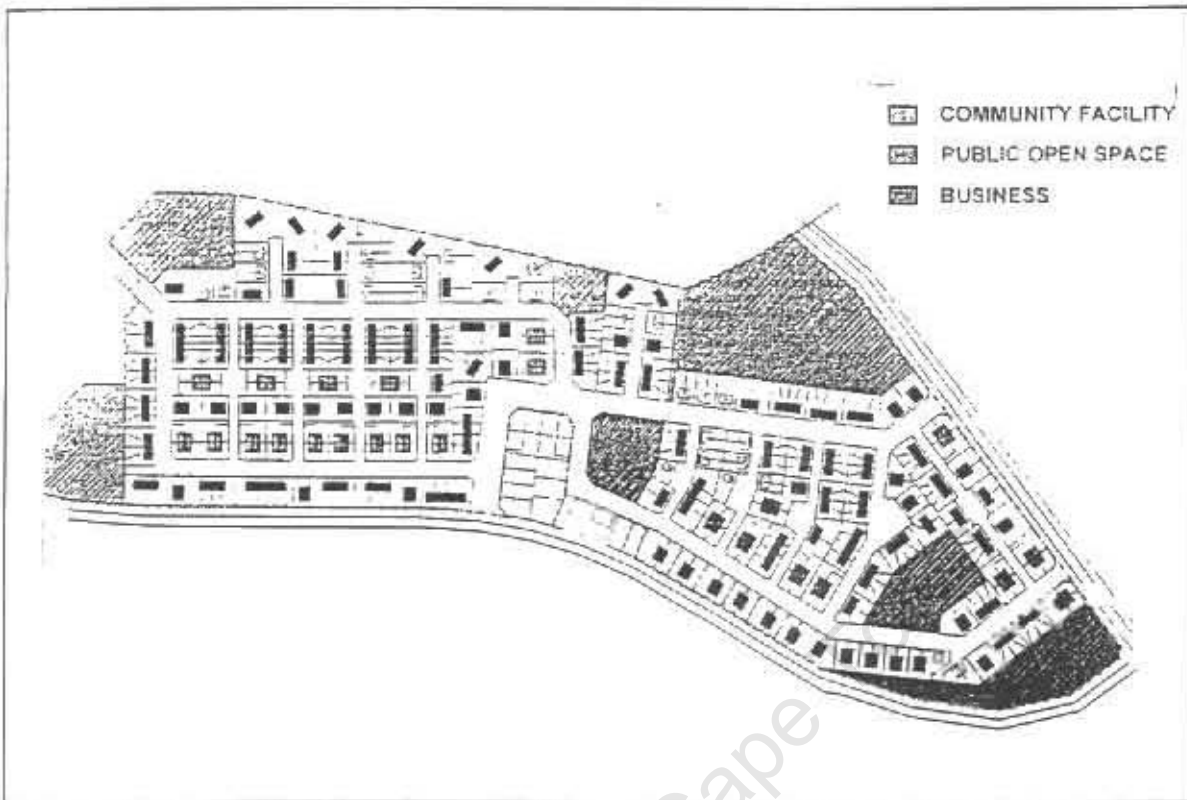


Diagram 5.2a Layout plan of recently completed housing project in Red Location, Port Elizabeth
 Source: *Journal of SA Architects*, Nov./Dec. 1999.

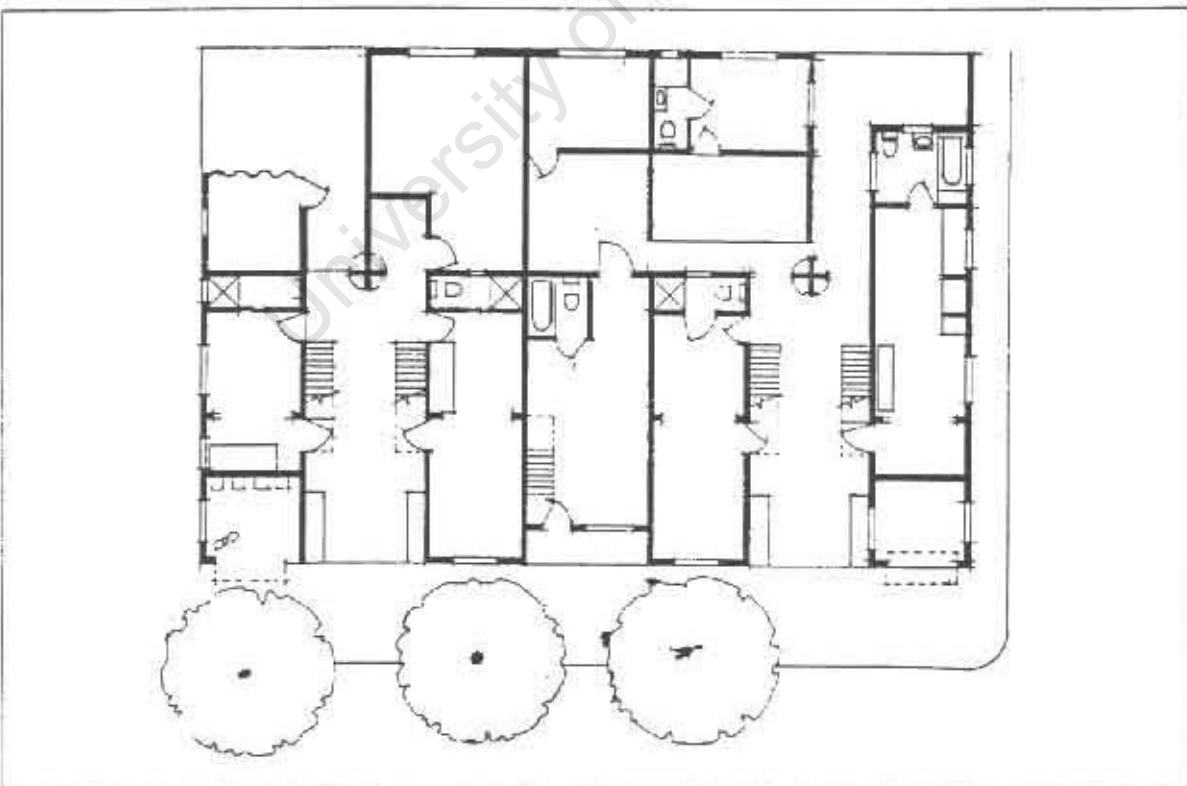


Diagram 5.2b Floor plan of recently completed housing project in Red Location, Port Elizabeth
 Source: *Journal of SA Architects*, Nov./Dec. 1999.

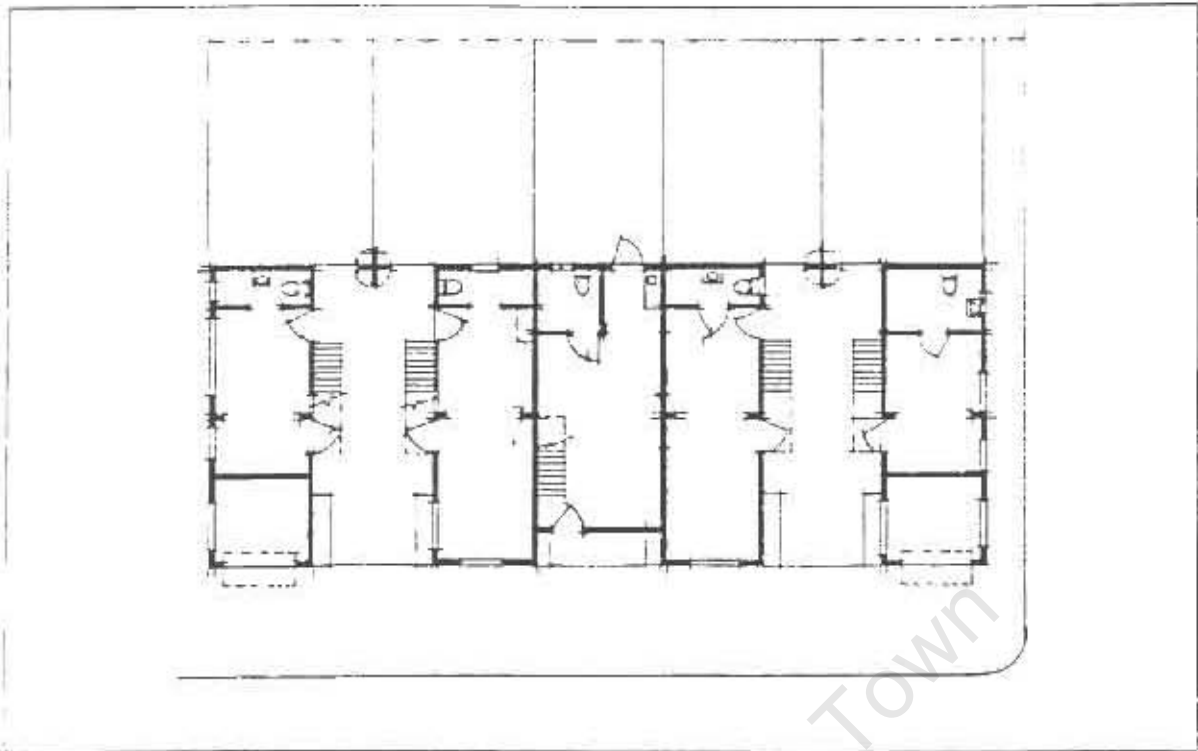


Diagram 5.2c Upper floor a plan of recently completed housing project in Red Location, Port Elizabeth
Source: *Journal of SA Architects*, Nov/Dec 1999.

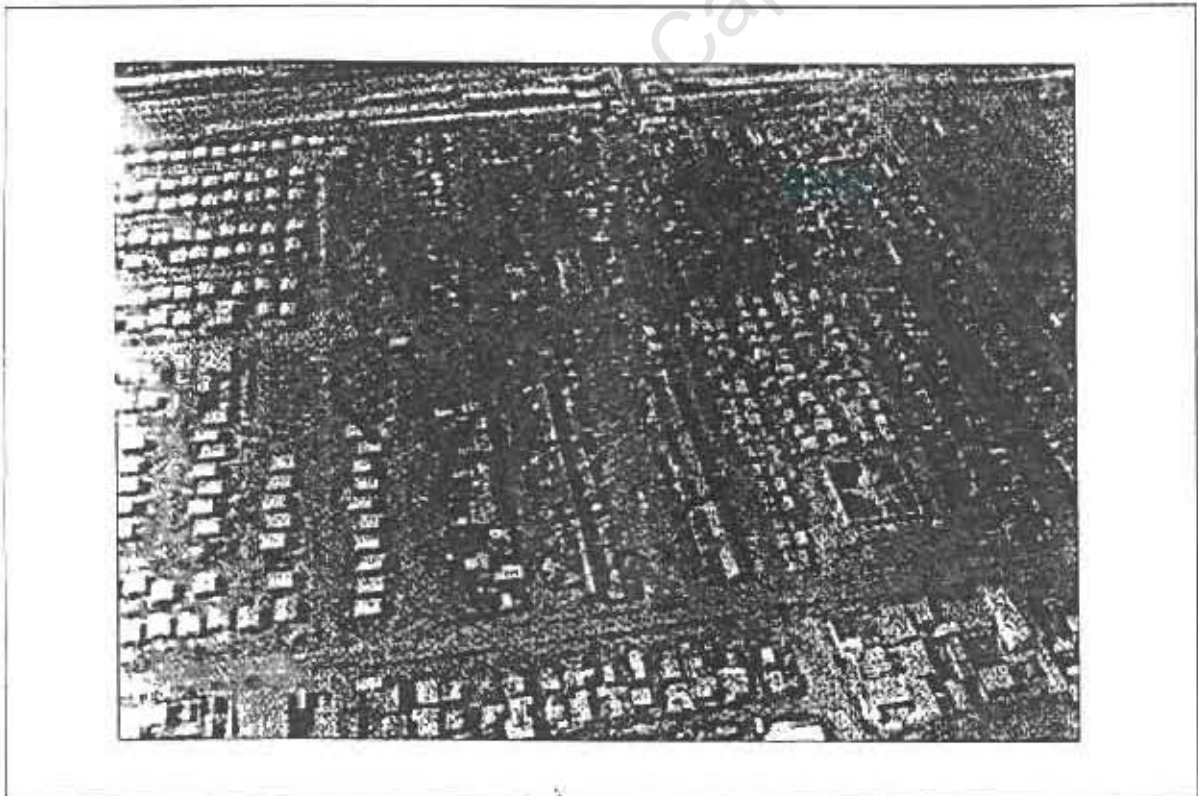


Plate 5.2 Aerial photograph of layout for low-income medium density housing project in Red Location, Port Elizabeth

Source: *Journal of SA Architects*, Nov/Dec 1999

Fourthly, there are structural members in place within the residential units to facilitate vertical expansion by adding of another floor. This floor was intended to be of timber. It was believed that during the period of expansion the homeowners would continue to reside in the building. To handle this situation and to reduce discomfort and limit the length of time of such changes a prefabricated system of construction, which could be easily assembled with the minimum bother to the occupants on the lower floor, was to be used.²³⁷

In summary, the Germiston and the Red Location housing schemes are two different examples of pilot projects that have been chosen to demonstrate that there are options available in terms of density and funding policies. In the Red Location housing project, top-up funding was acquired from an international organisation. In the second instance, in the Germiston housing project top-up funding was acquired from unions, employers and the National Housing Fund Corporation (N.H.F.C.). In order to cushion the effect of paying back these loans, some of the funders granted an interest holiday of one year from the date of completing the project. Afterwards, a repayment period of between 10-19 years was allowed with the interest rate set at 2.25% above the Cost Price Index.²³⁸ It is therefore essential that certain conditions must remain present to achieve rental accommodation of the proposed housing type. These conditions are as follows:

- the availability of long-term low-interest loans to non-governmental non-profit organisations for the provision of low-income housing, and,
- a non-governmental non-profit organisation dedicated to providing housing, and operating on a partnership basis with the state.²³⁹

However, the above conditions are not quite sufficient for facilitating the provision of rental stock. This is because the manner in which government allocates housing subsidies does not clearly differentiate between subsidies for rentals and subsidies for home

²³⁷ *Journal of SA Architects*, Nov./Dec. 1999

²³⁸ Sitembe Development Facilitation (1989) *Proposal for the Development of Institutional Housing in South Africa*, p. 5.

²³⁹ Dewar, D (1997) *The Vexatious Questions of Rental Housing in Urban Forum*, Volume 8:1, p. 88.

ownership.²⁴⁰ During implementation of the subsidies, the thrust of housing policy has been towards project-based housing with individual title as its main objective. It therefore appears that the city is built on the notion that everyone within the low-income bracket should own a home. This situation is problematic, given that considerable demand for rental accommodation exists in the city of Cape Town. As a result of this, the government should make positive efforts to ensure the effective delivery of housing for both rental and ownership purposes.

One way the government can differentiate the delivery of rental stock from ownership accommodation is for the state to formulate policies that may facilitate the emergence of a network of housing associations in two ways. The first way is by promoting the intensive training of management teams for such housing schemes. The training would prepare and equip such a team to effectively carry out the following duties:

- they shall be responsible for the development, administration including rent collection and maintenance of housing;
- they shall be capable of delivering both ownership and rental stocks. Therefore they shall be long-term institution rather than short-term in-and out developers, and,
- they shall facilitate the provision of total living environment (including social facilities and economic and commercial opportunities) not just housing and this creates possibilities for cross-subsidisation²⁴¹.

Furthermore, the state can provide long-term low interest loans to non-profit associations or organisations through the National Housing Finance Corporation. Significantly, the benefits of these two different suggestions are as follows:

²⁴⁰ The issue of rental housing is a vexed one in the context of housing policy in South Africa. In essence, the housing strategy which emerged from the National Housing Forum (NHF) negotiations is a market-based, state-facilitated housing process. It envisaged a three-pronged approach to tackling the housing problem: to promote an effective and efficient (primary and secondary) housing market without public sector financial assistance;

to promote an effective and efficient (primary and secondary) housing market which delivers housing on a basis of state subsidies with or without additional finance from non-government sector or individual; to promote subsidised public rental housing stock. Dewar, D. (1997) *The Question of Rental Housing in Urban Forum*. Volume 8:1. Page 83

²⁴¹ Dewar, D. (1997) *The Question of Rental Housing in Urban Forum*. Volume 8:1. pp. 83-90

- firstly, in terms of administration the state would not deal with large numbers of individual household but with limited numbers of housing associations (non profit organisations) which are responsible for relatively large numbers of units, and,
- secondly, in terms of equity with regards to rental and ownership accommodation, it is important that the state recognise that private ownership and rental accommodation are two completely different housing products. In the case of the former, the property belongs to an individual but it is subsidised by the state. In the case of the latter, the subsidy, regardless of the amount, is contributing to a growing public asset which can be used to the benefit of many generations and which, in the long term, contributes to public income²⁴².

The above represent one approach towards the provision of rental accommodation in low-income medium-density housing. An alternative approach suggested by Dewar (1994) proposed that cross-subsidisation can be a way of acquiring funds to subsidise the cost of providing larger spaces as well as ensuring the improved quality of finishes required to attract tenants to rental accommodation. This process would ensure that some dwelling units within a housing project are sold on the open market to the middle-income group. Profits from these sales could then be used to subsidise the entry price at the lowest possible level for low-income earners in the remaining units. However, the Springfield Terrace housing scheme has shown that this is only workable in very large housing projects.

5.2.3 Changes to ensure a planning climate that facilitates the delivery of Low-income Medium-density Development and the associated Urban Development

- It is a recommendation of the current thesis that the existing planning and control regulations as well as approval procedures should be suspended in relation to the provision of low-income medium-density development.²⁴³ These processes should be examined and reviewed so that a facilitating and more functional proposal may be

²⁴² Dewar, D (1997) The Question of Rental Housing in Urban Forum, Volume 8:1, p. 83-90

²⁴³ Dewar, D Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid

drawn up. Furthermore, it is necessary to de-fragment and avoid conflicting legislative frameworks that exist in each department.²⁴⁴ Ideally, legislative framework should be reviewed using a holistic approach. For instance, important components of spatial planning such as water, roads, environmental concerns, transport, housing and land should have a unifying policy framework and planning procedures that would facilitate the proposed urban development. In addition to the above, the process for approving the design of housing projects should be devoid of cumbersome and delaying procedures.

- Legislative controls on important components of urban development such as land-use should be reviewed to enable the formulation of a coherent land policy towards outlining responsibilities for the identification, assembly, planning and release of appropriate land for low-income medium-density development.
- There is indeed a need for different state departments, at both national and provincial level, to work together in a more integrated manner. Different departments need to be collectively engaged in the design and development of urban environments from the initial stages of project implementation.
- There is an urgent need to investigate and create different forms of funding - and combinations of these - for medium-density development.
- Perhaps in order to achieve the above, it is vital to first view housing as comprising a whole range of commodities rather than the business of providing dwelling units which form large housing estates. As was rightly pointed out by Dewar (1988), "housing does not simply relate to the provision of shelter but in obtaining a dwelling place the individual in fact gains access to a number of different products". These

and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

²⁴⁴ Dewar, D. Settlement Change and Planning in South Africa since 1994 in Blank Architect Apartheid and After. Edited by Hilton, J. and Vladislavic, I. Nai Publisher.

products include access to land, access to location, access to utility services, access to shelter and access to an external social and physical environment.²⁴⁵

- Housing professionals need to seek a more innovative approach so that they can more effectively manage the available scarce resources in providing the form and function of urban housing schemes and sustainable urban development. Emphasis should therefore not be placed only on the allocation of money for predominantly low-density housing estates for low-income groups, as is currently the case.

5.2.4 Improvement in the area of Partnerships

Springfield Terrace in Cape Town, Red Location in Port Elizabeth and the Germiston housing project all demonstrate the importance of a functioning partnership between the public and private (i.e. a not-for-profit organisation) sectors in the provision of urban housing. Therefore, it is crucial that the parties involved in such partnerships make harmonious efforts to build a strong working relationship. This may require more effort from the public sector because of the element of risk, as perceived by the private sector. In order to avoid a repeat of the kind of confusion that occurred over certain responsibilities and duties when the Springfield Terrace housing was provided, it is better to clearly state the roles of both the private and public sectors in such developments during the initial planning stages.

5.2.5 Changing the mindsets of both the profession and members of the public

It is necessary to influence and change the perception held by low-income / poorer communities that medium-density housing is inappropriate and that low-density housing is the better solution. The social and economic advantages of higher density living should be demonstrated to people through the media and through workshop programmes. In addition more pilot projects need to be built in strategic locations, in order for the public in general (including both affected communities and relevant professionals in the field of

²⁴⁵ Dewar, D. (1988). *Towards a Housing Framework* UPRU UCT 1988, pp. 7-8.

low-income housing) to perceive the values of medium-density housing developments.

It is a further recommendation of the current thesis that there is a need for workshops and awareness programmes to inform housing professional from both the public and the private sectors of the fact that good housing does not come only in one form - namely the single dwelling unit on a plot. Furthermore, this campaign should include members of the public. It is believed that this would encourage housing professionals to think of more innovative ideas, which may facilitate urban housing in the form of integrated medium-density mixed-use developments. Such a campaign is expected to have a positive impact on two groups. The first group would be members of the public. Slowly but surely such a campaign would reduce the degree of resistance against integrating low-income residential areas with other income groups on well-located, vacant land (in inner city areas) and re-utilising currently underused facilities within the existing urban fabric. The second group comprises housing professionals (both in the public and private sectors). It is believed that a change of mindset amongst this group would spur them to review possible and more creative solutions to the urban housing problem.

In order for such an awareness programme to have a positive and lasting effect on members of the public, it is important for design professionals to take cognisance of certain factors. Firstly, the densities of all the components that complement housing must be increased commensurately to the densities of population and dwelling units within any given settlement. Secondly, planners should explore ways of assisting the growth of the city in a manner that absorbs and integrates different income-groups and functions with each other (as harmoniously as possible).

As far as possible, architects should design dwelling units that will allow occupants to have direct access to private open spaces / gardens. Where this is impossible to achieve, balconies should be provided. Furthermore, it is vital to achieve a high degree of privacy in and around each dwelling unit. These factors would help change the notion that living in low-income medium-density units automatically means exposing people to low-levels of privacy within and around these units. It is vital that architects should make adequate

efforts to address the issue of place-making during the design stage. Last but not least, efforts should be made to house larger families in bigger units on the ground floor of such developments.

5.2.6 How to acquire and improve experience for the effective provision of Low-income Medium-density Housing

The only way that the public and private sectors can acquire sufficient experience in achieving this new goal is by first becoming involved in the practise of providing more pilot projects similar in nature to the Springfield Terrace housing scheme. Secondly, quite a few projects of this nature have been handled in cities within South Africa. Examples include other housing projects in Germiston (Gauteng) and Missionvale and Red Location housing projects (both in Port Elizabeth). It is imperative to set up a national body, which can carefully study such pilot projects in order to identify ways of providing even better projects in the future. Thirdly, there should be a way that lessons learnt from such studies can be effectively disseminated in those areas / parts of the country where they are needed.²⁴⁶

Amongst many factors the main factor that has facilitated the delivery of the two different housing project employed in this chapter is that public finance was not allocated with a breakdown of how it should be spent (for instance a total of about R3,000 was allocated for the provision *inter alia* of electricity meters, fences and landscaping) as was the case with the Delft housing project.²⁴⁷ This gave room for creative and innovative ways of how to utilise scarce available resources effectively in creating a new form of urban development.

5.3 Conclusion

As has been illustrated in the case studies discussed above, it is indeed possible to

²⁴⁶ Dewar, D. et al (1998) Public/Private Partnership in the Department for International Development.

²⁴⁷ Dewar, D. et al (1998) Public/Private Partnership in the Department for International Development, p. 174.

develop medium-density housing for low-income earners in South African cities to promote a new form of urban development. Within the present financial frameworks and existing housing policy there is the prospect, albeit limited at this stage, for providing low-income medium-density housing.

However, much more work remains to be done and many changes and improvements to attitudes, policies and perceptions are still necessary. It is important that the investigation of such necessary changes is done in a co-ordinated manner and that many more pilot projects of low-income medium-density housing are designed and implemented to demonstrate an alternative urban housing model for poor communities.

Obviously, these changes are very difficult to achieve, given the extent to which the current institutional frameworks and mindsets of both professionals and prospective tenants over the years have been fashioned to support an entirely different model of housing and a different type of city form and structure. This does not imply, however, that these changes are impossible to realise.

It may take some time though to achieve these goals, and both the private (not-for profit organisations) and public sector should not get discouraged. After all, the current institutional framework and mindsets are the end product that has been developed over a considerable number of years. Inevitably, therefore, the changes proposed in this research require constant and concerted efforts from both the private and public sectors in order to acquire enough experience for new institutional frameworks to be set up to achieve a different form of urban development.

It is suggested that teams of related professionals could perhaps be assigned to different aspects or areas of concern with regard to the provision of housing (particularly for low-income groups). Groups could be delegated to review policy frameworks and planning procedures. Teams could be in charge of conducting national studies on pilot projects so that useful information can be made available to the public and private sectors.

Even though this current research has recommended a shift away from low-density housing to the provision of medium-density housing, it is not the intention to provide only medium-density housing for the urban poor. In fact, there should be combinations of various housing types and densities as much as possible in any given area. However, given the magnitude and nature of the housing shortage, particularly among low-income earners, the emphasis should be on the provision of medium-density housing. It should be applied on appropriate land (in inner city areas) so that new city growth can result in a more compact and integrated manner.

As part of the effort to ease the process of achieving this goal, members of the public ought to be involved and educated as much as possible. Thus awareness programmes can be organised to educate the masses about the advantages this form of development has to offer, in contrast to current low-density development which is uneconomical and unsustainable. In addition, the government should put policies in place to encourage the increase of population densities in inner city areas so that development can be promoted in the city. Consequently, this would help reduce pressure on outward expansion beyond the city limits; more importantly it would also reduce the financial burden of providing infrastructural development.

It is easy to get discouraged by such a mammoth task but it is better to try to implement certain changes, rather than giving up without making an honest effort. This is because the prevailing structure and form of city development represents the inefficient use of scarce resources (in terms of finance and land). For this reason, it is only reasonable to implement such changes although they may at first appear difficult to realise. What should serve as motivating factors are the tremendous advantages that the new urban development model has to offer, in addition to the fact that these changes are in fact quite reasonable and achievable. Above all, the realisation of such prospects for medium-density housing depends on the political will of the national and local governments to address the problem of unsustainable cities. To improve the prospect of such developments, changes in perception, policy administration and fiscal advantages need to be effected.

CHAPTER SIX

6.1 Conclusion

This final chapter considers, amongst other issues, how the aims and objectives of the research have been met. The research through its findings has proposed certain changes that need to be considered in facilitating the successful provision of low-income medium-density housing in South African cities in general and in Cape Town specifically. These proposals can also be applied and adapted to other developing countries.

6.2 Achievement of objectives

The purpose of this research was to explore the prospects and opportunities for the provision of low-income medium-density housing in South African cities in general and Cape Town in particular as these may impact positively on urban development and in turn improve the living conditions of its residents. The reason for this enquiry stems from the problems brought about by the concept of large isolated low-income and low-density housing suburbs on the periphery of cities such as Cape Town (e.g. the Delft housing project, which was discussed in Chapter four. Some of these problems have caused the residents of this area a great deal of discomfort (refer to the last paragraph of section 4.2.2).

In line with attaining the purpose of the research, certain objectives were stated (refer to section 1.4.2). It is therefore imperative to establish whether and to what extent these objectives were in fact achieved. The objectives were:

- developing a perception of the factors responsible for the current low-income low-density sprawl in South Africa cities in general and in Cape Town specifically. This was achieved by developing an in-depth understanding of the housing policies, both internationally and locally (i.e. in developing countries in general and in South African cities specifically);

- establishing the need for alternative urban development in the city of Cape Town. This was achieved by reviewing the general problems associated with prototype single dwelling planned communities by comparing it with higher-density planned communities on the bases of cost analyses. Through the above, the advantages of higher-density development were established, this served as a basis for discussing alternative planning ideas;
- establishing those factors that hinder the provision of low-income medium-density housing and its use to achieve a new form and structure of urban development. This was achieved by investigating the provision of two different housing projects namely: Delft and Springfield Terrace. The investigation of Delft revealed those factors that almost exclusively facilitate low-income low-density sprawl, while the investigation of Springfield Terrace revealed those factors that hinder low-income medium-density development in Cape Town. Furthermore, investigation of legislative framework of important components of spatial planning (such as water, housing and land) also threw more light on this issue, and,
- to suggest those changes that are necessary for the provision of low-income medium-density housing in South African cities in general and in Cape Town specifically. Two different examples of low-income medium-density housing projects (i.e. in Red Location, Port Elizabeth and in Germiston, Gauteng) were employed to demonstrate specific changes. Furthermore, the research through its findings in the aforementioned investigation of Delft and Springfield Terrace housing projects was able to give other effective suggestions.

6.3 Assessing the Objectives achieved during the research

An assessment of the objectives achieved during the research is necessary to measure the work undertaken above.

Part 1. Assessment of Objectives in respect of Chapters Two and Three:

Chapter Two reviewed the present / existing low-income housing policies in Cape Town,

South Africa in the context of international policies pertaining to other developing countries. The purpose of this study was to highlight the various issues around the housing problem. These issues included, *inter alia*, factors that led to the housing problem in the first place, the limitations of various housing policies, the motivation behind these policies and the fundamental concepts behind the predominant housing models. Most importantly, it also considered the parties involved in the provision of low-income housing and the factors limiting the ability of such parties from providing adequate housing to low-income earners.

In summary the persisting problem of limited finance with regards to the budget for housing within State sectors was common to both South Africa and to developing countries in general. These and other factors were identified as obstacles, thereby limiting the ability of the State to perform a meaningful role in providing adequate housing to low-income earners. As a result, the State has focused more on creating an environment which facilitates the delivery of housing, rather than engaging directly in the provisioning process in which market involvement was employed. This situation has compelled governments to adopt a solution which focuses on reducing the cost of providing each dwelling unit, and in this manner facilitating the ability to increase the number of public dwelling units provided through the limited funds available. However, the limitations in the concept have become self-evident as such schemes have required huge infrastructural services, which are very expensive to provide and maintain.

Typically, the various forms of self-help housing schemes championed by different international organisations (i.e. the World Bank and the International Monetary Fund) and later by various Governments appeared to have adopted the same concept of building smaller dwelling units on a plot of land for each family as starter houses. It was expected that the respective families would consolidate and densify the units as finances allowed. To all practical intents and purposes these processes of consolidation and densification have seldom been implemented. Very often this has resulted in uneconomic and unsustainable development in areas such as Delft. These shortcomings stem from a mode of thinking, which has led to policies that have over the years not been based on a holistic

approach toward formulating a more functional housing policy. Instead policies have focussed on one aspect alone, namely the quantitative delivery of dwelling units and services.

Chapter Three dealt with a general study of Western Cape in connection with current township development. This study revealed the single dwelling unit on a plot as the dominant form of housing across all income groups. This model of housing was influenced by two planning principles: namely the Garden City and Neighbourhood Unit planning concepts. In addition, the motor car significantly influenced the planning ideology employed within Cape Town and its environs.

Therefore, the existing general township development necessitated the need to carry out a comparison between planned sprawling communities and planned compact communities, in terms of a general cost analysis under various headings. This comparison revealed problems associated with the typical sprawling community, which often resulted in a wasteful and unsustainable development. It further provided motivation for the next chapter (focussing on specific case studies) by proving that a planned compact environment appears to be a better example in terms of achieving economic and sustainable development.

Part 2. Assessment of objectives in Chapters Four and Five

Chapter Four examined and discussed those factors that militate against the easy provision of low-income medium-density housing and its use in compacting, integrating and achieving sustainable urban development. In order to investigate these factors, two case studies and an additional example of low-income medium-density housing were employed. The first case study was the Delft housing project in Cape Town. It represents a large low-income low-density housing development on the periphery of the city and is one of many examples of a development that is uneconomical and has led to urban sprawl. The second case study was the Springfield Terrace housing project in Woodstock, Cape Town. It represents a low-income medium-density housing pilot scheme. It is

located on appropriate land near the city centre, and is aimed at promoting a sustainable urban development. In addition to these two case studies, the Missionvale housing project in Port Elizabeth was employed to further throw light on the issues raised.

The findings of the research in Chapter Four can be divided into two categories: The first group revealed those conditions or factors that have continued to favour the predominant application of the low-income single-dwelling unit, which has been responsible for the suburban sprawl in Cape Town.

The second group represents factors that militate against the provision of low-income medium-density housing as well as its use to achieve developments that are compact and integrated in addition to promoting mixed land uses and sustainable urban developments in South African cities in general and in Cape Town specifically. Nevertheless, the combination of these complex and closely knitted factors have assisted the research in examining the prospects and possibilities of providing low-income medium-density housing and a new form of urban development.

Chapter Five focused on achieving the last objective of the research, namely to propose certain changes that need to occur in order to facilitate the provision of desired housing types in South African cities, such as Cape Town for example. The aim of the research, which is to explore the prospects and opportunities of providing low-income medium-density housing as a tool to bring about a new form of urban development in cities such as Cape Town, was thus established to the extent to which these difficult changes can reasonably be achieved.

These changes focused on areas within the private and public sectors. In the public sector changes were recommended within policies and legislative frameworks of some departments that are vital to the provision of housing. In addition, these changes focused on the institutional framework and mindset of housing professionals and members of the public. Two examples of low-income medium-density housing were employed to demonstrate some innovative ways through which certain changes could be realised.

These were the Germiston housing project in Gauteng and the housing project in Red Location, Port Elizabeth. Although these changes are perhaps quite difficult to execute, they are nevertheless possible to achieve and important to implement.

6.4 Proving the Hypotheses

This section examines the factors militating against the new form and structure of city growth, which has been suggested by the research. The purpose of this exercise is to demonstrate how these hypotheses were formulated. They are:

- there are policies in some department which represent the critical components of housing and planning that continue to hinder the easy provision of low-income medium-density housing and the new form and structure of urban development in Cape Town;
- there are institutional frameworks and mindsets which exist within the public and private sectors which do not favour the provision of the aforementioned housing type, and,
- there is no established tradition of a functional partnership between public and private sectors in this regard.

Investigations into the obstacles to low-income medium-density development that in effect facilitate low-income low-density sprawl, as well as those that prevent the new form and structure of urban development in South African cities such as Cape Town, are important issues that have assisted with formulating these hypotheses.

The results of the above investigation revealed that there are conflicting policies in some governmental housing and planning departments, that almost exclusively facilitate the provision of low-income low-density sprawl on the one hand, and prevent the provision of low-income medium-density housing on the other hand. Moreover, some of these policies are in conflict with the Development Facilitation Act of 1995 (which recommended settlements that are integrated and compact, in addition to promoting

mixed-use development). This confusion has prompted most housing professionals to simply stick to providing the low-density development to which they have become accustomed (refer to sections 4.3.1, 4.5.2 and 4.5.3).

Secondly, the results of the investigation into the Delft and Springfield Terrace housing projects revealed that the institutional framework and the mindset within the public and private sectors are structured to facilitate the delivery of the single dwelling units alone. In the case of Delft, the existing institutional framework is experienced and specialised in the delivery of this housing type. Therefore, the delivery of this project was quick and easy. In the case of Springfield Terrace, because officials were challenged by the different nature of this project, an interdepartmental team was set-up to fast-track decision-making, but unfortunately the team failed to realise its goal. This was because it was difficult to persuade other departments (such as those responsible for roads and traffic for instance) to participate in the innovative approach. This is a typical problem arising from a particular mindset and institutional framework, which favours the provision of the single dwelling unit (refer to sections 4.3.2 and 4.5.4).

Thirdly, the Springfield Terrace housing project revealed that this was the first time that local authorities entered into partnership with the private sector (i.e. a not-for-profit organisation). Consequently, the partnership was weak due to the lack of an experienced working relationship between these two different sectors. This further gave rise to problems such as the lack of clarity about the roles and responsibilities of both parties and a series of functional breakdowns which resulted in several delays, thereby impacting negatively on the provision of low-income medium-density housing (refer to section 4.5.6). These factors have assisted this thesis formulate the hypotheses for the research.

6.5 Observation and Recommendations

The following observations and recommendations are expected to throw more light on certain issues as they relate to this research.

6.5.1 Observations

During the course of the research certain observations were made, which may shed more light on the situation and thus give a better understanding of the housing problem in developing countries in general (including South African cities) and in Cape Town specifically. Based on the current status vis-à-vis of the provision of housing, it would appear that government authorities and housing professionals have a misconception that low-income housing simply means the provision of copious quantities of dwelling units alone. In some instances these units are provided with related community facilities (such as schools and clinics) that are grossly inadequate (partly as a result of lack of funds). The circumstances, which originally gave rise to this misconception, are not simple. Most likely it resulted from the persisting problem of limited finance within the budget for housing. This may have compelled the Government to adopt a housing schemes that concentrates on the provision of dwelling units alone, while reducing the cost of such units to a minimum liveable standard (refer to Section 2.4). The question of providing a quality urban environment under such difficult financial / economic conditions is hardly considered.

In terms of planning ideas which have been widely applied in South African cities such as Cape Town, viz. the Neighbourhood Unit and the Garden City Models these have often resulted in the isolation of low-income residential areas from facilities and functions to which they in fact need access. The result is that such residential areas are typically mono-functional.

Certain factors appear to have improved the affordability of the low-income medium-density housing projects in Springfield Terrace (Cape Town) and in Germiston (Gauteng). The housing scheme in Germiston, Gauteng, for instance, illustrates how top-up funding was acquired on very convenient terms, thereby assisting tenants to repay these loans. For instance, an interest holiday of about one year was granted from the date of completion of the project. In addition, some of these loans were granted at very low-interest rates, spread over a period of 15 years.

Among several other factors, one important factor that may have improved the level of affordability amongst tenants in Springfield Terrace is the fact that a large portion of the land used for this development was sold at a give-away price by Cape Town City Council to Headstart, the developer. It is a recommendation of this research that the City Council should continue with such involvement if the pressures of rapid urbanisation are to be properly managed. This is even more so given that ownership of the most appropriate land for such development frequently lies in the hand of various state and parastatal institutions.²⁴⁸ Such involvement will have a positive influence by facilitating the provision of low-income medium-density housing at a price that is relatively affordable to low-income earners.

6.5.2 Recommendations

The following recommendations are suggested from the observations made by the research. Firstly, it is important to state that the provision of dwelling units is one of only several commodities that make up the housing environment. Some of these commodities include access to stable socio-economic opportunities, access to land, access to infrastructure and access to cultural and educational facilities. Therefore the complete range of services that make up housing or urban habitat must be present. In fact this conditions can be best achieved if housing professionals begin to view housing as a tool for making cities rather than the perception that it (housing) simply refers to the provision of dwelling units.

The planning emphasis should be on the integration of different uses and activities so that those tenants in low-income areas can have access to socio-economic and human development. Thus, the implementation of urban housing in South African cities such as Cape Town will impact positively on low-income tenants if housing is considered as a range of commodities that complement one another. The different aspects should be well integrated with each other to result in mixed-use medium-density development.

²⁴⁸ Dewar, D. *Settlement Change and Planning in South Africa since 1994* in Blank Architecture Apartheid and after. Edited by Hilton, J. and Vladislavic, I. Nai Publishers.

6.6 Recommendations for further research

In the light of the stated objectives / delimitations of this research, there are a number of areas which fall outside the scope of this thesis but which need to be further researched. Such areas for further research include:

- the provision of medium-density housing in the form of a study of different feasible housing typologies;
- the refinement and development of a new role of the state (local and national government) in providing access and innovative funding mechanisms for the provision of low-income medium-density housing, and,
- the encouragement and integration of mixed land use development, investigating the possibilities for providing incentives and investor confidence in housing neighbourhoods.

These areas of specialised research are complex but are very important in further developing the argument for the validity and provision of low-income medium-density housing in our cities.

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X: Author unknown.

s.n. (sine nomine): Unknown publisher.

s.l. (sine loco): Publishers in different cities.

s.d. (sine dato): Year of publication unknown.

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