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**Distant Decentralised Office Parks
A case study of the La Lucia Ridge Office Estate**

By

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Table of Contents

Declaration

Acknowledgements

CHAPTER	PAGE
CHAPTER 1- AIM OF THE RESEARCH	1
1.1 Introduction	1
1.2 Motivation for the choice of topic-	3
1.3 Formulation of the Hypothesis	4
i. Research Problem—	4
ii. Research Question—	4
a. Nature of the study<<<	5
iii. Hypothesis	6
1.4 Focus areas of the research	6
1.5 Conclusion	7
1.6 Chapter Outline	8
CHAPTER 2- RESEARCH METHODOLOGY	11
2.1 Introduction	11
Collection of Primary Sources of Data	14
2.2 Listing of firms in the Office Park	14
2.3 Classification of firms into sectors	16
2.4 Population size and sample selection	18
2.5 Stages in the field research	19
2.5.1 Phasing of interviews	20
2.6 Surveying Methods	22
i. Employee Questionnaire Survey	22
ii. Employer Questionnaire Survey	22
iii. Formal Sector Interviews	23
iv. Personal Observation	23
v. Employer Interviews	23

Collection of Secondary Sources of Data	24
2.7 Secondary Sources	24
2.8 Limitations to the study	25
2.9 Conclusion	26
<hr/>	
CHAPTER 3- THEORETICAL FRAMEWORK	27
3.1 Introduction	27
3.2 Defining the office	30
3.3 Research that has been done to date	31
3.4 Useful concepts	32
3.5 Ecological Approach	33
3.6 Office Location Theory	34
3.6.1 Role of communication in the Office Location Theory	35
3.7 Von Thunen's Theory on Land Use	36
3.8 International trends on office location	40
3.8.1 Distribution of office Employment-international trends	41
3.9 Decentralisation trends in South Africa	42
3.10 Office Relocation Decisions	44
3.11 Office Location Factors	45
3.11.1 Influences on locational decisions	46
3.12 Local Government and office development	51
3.13 Office requirements	52
<hr/>	
CHAPTER 4- OFFICE MARKET IN S.A AND DURBAN	54
4.1 The office market in Kwa-Zulu Natal	54
4.2 Percentage of offices built in the country-1998	54
4.3 Durban's office market	56
4.4 Conclusion	60
<hr/>	
THE CASE STUDY	
CHAPTER 5- CONTEXT OF THE STUDY AREA	63
5.1 Introduction	63
5.2 Umhalanga in the context of the DMA	63
5.3 The Development Process	65
5.3.1 Stakeholder Interests	65
5.4 Company Law	69
5.5 Conclusion	72
<hr/>	
CHAPTER 6-THE UNIQUENESS OF THE LA LUCIA RIDGE OFFICE ESTATE	73
6.1 Introduction	73
6.2 Views from the office park	74

6.3 Security at the office park	75
6.5 The Square	77
6.6 Conclusion	78
<hr/>	
CHAPTER 7- ANALYSIS OF THE FINDINGS	79
7.1 Introduction	79
7.2 Relocation of firms into the office park	80
7.2.1 Firms prior location	80
7.2.2 Increased in travel costs for firms and employees	82
7.2.2.1 Increased costs for employees	83
7.2.3 Staff losses due to the relocation	86
7.3 Employees and Employer travel patterns	87
7.3.1 Mode of transport for employers	88
7.3.1.1 Distance traveled by employers	88
7.3.1.2 Time it takes for employees to reach work	91
7.3.2 Mode of transport for employees	93
7.3.2.1 Distance traveled by employees	97
7.3.2.2 Time it takes for employees to reach work	100
7.3.3 Adequacy of parking bays	100
7.3.4 Pubic transport at the office park	103
7.3.5 Traffic congestion during peak hours	106
7.4 Perceptions of the office park	109
7.4.1 Employers perceptions	109
7.4.2 Employees perceptions	110
7.5 Use of internal and adjacent facilities	111
7.6 Conclusion	114
<hr/>	
CHAPTER 8- ISSUES FACING PLANNERS AND IMPLICATIONS FOR PLANNING	115
8.1 Introduction	115
8.2 Observations made	115
8.2.1 Limitations to the observations	116
8.3 Discussion of the observations	116
8.4 Effect of the office park on the surrounding land uses	118
8.5 Consequences facing firms in the office park	119
8.7 Evaluation of the Hypothesis	119
8.7.1 Developers satisfaction	119
8.7.2 Tenants/ Employers satisfaction	120
8.7.3 Employees satisfaction	121
8.7.4 Local Government satisfaction	121
8.8 Conclusion	123
<hr/>	
CHAPTER 9- RECOMMENDATIONS FOR FURTHER RESEARCH	124
9.1 Recommendations for further research	124
9.2 Conclusion	125
<hr/>	

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References and Bibliography 126

Appendices 132

Maps

List of Figures i

List of Tables and Graphs ii

List of Diagrams and Photographs iii

List of Appendices iv

List of Maps v

List of Figures

Figure 1- Research Methodology	13
Figure 2- Illustration of the stakeholders that were interviewed.	21
Figure 3- Theoretical Framework	29
Figure 4- The Spatial Organisation of Firms	38
Figure 5- Bid rent curve	42
Figure 6- Internal pressures on office location	48
Figure 7- External pressures on office location	49
Figure 8- The decision process model for firms-when relocating	50
Figure 9- Schematic representation of the development process for the La Lucia Ridge Office Estate	68

List of Tables	Page
Table 1- List of firms in the Office Park and their sectors	15
Table 2- Percentage that each sector made	14
Table 2a-Sample size	17
Table 3- Amount of decentralised office space in Durban	58
Table 4- Firms prior location	81
Table 5-Increased cost to firms	83
Table 6-Increase in travel cost for employees	84
Table 7-Employees lost due to the relocation	87
Table 8-Distance traveled by employers	89
Table 9-Employers to travel time to work	92
Table 10-Employees mode of transport to and from work	94
Table 11-Employees mode of transport to work (finance sector)	95
Table 12-Employees mode of transport from work (finance sector)	96
Table 13-Employees travel distance	98
Table 14-Employees travel time to work	100
Table 15-Adequacy of parking bays	102
Table 16-Employees perception of the office park environment	110

List of Graphs

Graph 1- Office plans passed in S.A during 1998	55
Graph 2- Employees activities during their lunch break	113

List of Diagrams

Diagram 1- Employers travel network	90
Diagram 2- Employees travel network	99
Diagram 3- Public transport network	105

List of Photographs

1. (a, b, c) Views from the office park	136
2. Security gatehouse	136
3. Security pond	136
4. The Square	78
5. Traffic flows in the morning and	107
6. Traffic flows during lunch from Umhlanga Town Centre	108
a) Traffic flow during lunch from the office park	108

List of Appendices

Appendix 1- Employer Questionnaire	133
Appendix 2- Employee Questionnaire	134
Appendix 3- Case study for legal references	135
Appendix 4- Photographs	136

List of Maps

Map 1-The site in relation to the DMA

Map 2- The Site

Map 3- The major access routes to the site

Map 4- The site as part of the Umhlanga node

Map 5- The environmental layout of the office park

Map 6- The location of the 'mini' office parks within the La Lucia Ridge Office Estate

Map 7- The bus-stops that service the office parks

Chapter 1- Aim of the research

1.1. Introduction

Employment opportunities are shifting from manufacturing to service and office functions. The organisation of work is shifting from large-scale manufacturing processes, consisting of firms with long production runs, to small scale processes and short production runs, and a mixture of office, production, distribution, and assembly functions. Market forces have made the expanding sectors of business rely on the application of very specialised and advanced knowledge and harnessing of new technologies and, as the result the balance of human effort has shifted away from straight-forward production towards management. The increased speed of technological innovation in the office sector has also meant that interior layouts must be able to change rapidly and easily. As a result many companies have abandoned custom-designed buildings with tailored layouts in favour of loosely fitting, ready-to-use shells with flexible interior components. Large firms may be able to move into a purpose designed building, but smaller firms may have to choose between a variety of buildings available for rent.

Office parks seem to be the trend. However the benefits of these parks with respect to the employees/clients, developers, local government and the firms are questionable. The choice of topic reflects the researcher's interest in this trend as well as concern for the work environment, in terms of the implications on workers that is created by such trends, and effects on the employees, management, the firms/employers and on the clients of such firms.

It has been argued by Daniels (1975) that the dispersal of offices to the suburbs and the metropolitan fringe is a means of increasing accessibility of office jobs to an ever more dispersed suburban population. However the implications for firms, which have relocated to these parks, need to be considered. The convenience of such office locations will be compared to the convenience of previous locations e.g. what do people do during their lunch break? Can they do their shopping and run errands? Distant decentralised office parks may increase private car ownership - if public transport is not available - the adequacy of parking-bays will

be examined. This dissertation will focus on The La Lucia Ridge Office Estate (which is referred to as an office park since it consists of four 'mini' office parks. The mini office parks will be discussed in **Chapter 5**) as a case study, in order to research the convenience of *distant decentralised office parks*. There will also be a discussion on similar patterns of office parks in Johannesburg as well as internationally. The safety of these office parks will be analysed as part of this study.

An important question would be: "In whose opinion are such parks efficient?" Are the pioneer firms in the office park under study locating on the basis of a rational decision or is it a business speculation? Another question would be: "What do the developers envisage?" The goals and objectives of the Local Authority and the property developers will also be discussed.

The La Lucia Ridge Office Estate is of specific interest since it consists of a density that is low in the Durban context. The aspects of the office park's density will be a focus in detail in **Chapter 5 and 6**. The low density is not a unique phenomenon when compared to international experiences and experiences in Johannesburg (K.Davies *per comm* 1999).

The growth of suburban office space has not been accorded much attention in the literature. There has been a tendency for literature to concentrate on the quantity of suburban offices compared to the amount of offices in the city centre. Literature has tended to over-look the pattern that distant suburban offices have tended to assume. Planners need to understand the linkage requirements of the decentralised offices and for which firms the distant locations are most suitable. The perceptions of decentralised offices are based on visual observation rather than on scientific analysis of the nature of offices in office parks and their linkage to the Central Business District (CBD) and other areas. Literature also tends to ignore the effects on the employees, in terms of travelling cost and time, when firms decide to locate into distant office parks. The study arises from this omission in research information that is available.

The most important contribution to this research topic, is the matching of the forces of supply and demand whereby the demand side does not only focus on the market but also on the tenants viz.; the workers, management, and the firms as a work institution. The study also

looks at the social aspects of distant decentralised office locations. Thus substantial contribution to the study is the economical analysis in terms of supply and demand and merging that findings with the social research that will analyse qualitative data that will be amassed for the empirical research.

1.2. Motivation for the choice of topic and the specific case study

Office Parks seem to be the preferred location of many firms. The full implications of these office parks are not clearly understood. Each of the stakeholders are affected differently in these parks and some stakeholders are also affected due to the firm shifting its location into these office parks. Office parks seem to be the trend in office location due to the attractive or 'pull' factors of these office parks. The 'pull' factors of these office parks need to be fully understood so that planners, property developers, investors, employers (or tenants in these office parks) and local government can be informed of the implications of these parks.

The choice of the La Lucia Ridge Office Estate, as a case study, reflects the researcher's interest of developments in the Umhlanga area. A variety of developments are occurring along this north coast. The Umhlanga area has emerged as one of the top three investment regions of South Africa despite the current tough economic climate (Moreland Views, 1998).

Having acknowledged that technological advancements plays an important role for firms locating in this office park, the research will set out to investigate the viability of firms in this office park, as well as the potential for expansion of office space if firms merge or expand. The research is also motivated by a social factor, the work force. Prior research on office decentralisation tends to ignore effects of decentralisation on employees, and this study aims to fill in this gap. The study has been inspired to establish the reasons for firms (if any) that relocate from the CBD into the decentralised office parks. A final motivation of this study is to therefore evaluate whether the La Lucia Ridge Office Estate is a viable alternative to any firm that wishes to relocate into a more attractive, less congested safer environment.

1.3. Formulation of the Hypothesis

The formulation of the hypothesis is a fundamental component of the research methodology that will be elaborated on in **chapter 2**. The process involved in the formulation of the hypothesis can be seen as one that has progressed from a broad understanding of the important issues and problems that relate to the topic, to the identification of a research problem, an outline of the relevant research questions that will be evaluated and answered, and finally the formation of the hypothesis.

i) Research Problem

The problem that exists is that the consequences of distant office parks are not clearly understood as well as the implications for planning. The various stakeholders are affected in different ways in these office parks, due to the shift in location of offices into distant decentralised locations. What is becoming a trend (i.e. the office parks) has diverse implications on the varied stakeholders, and planners therefore need to be aware of these implications.

ii) Research Question

What are the processes of change and what are the locality specific factors that led to the establishment of the La Lucia Ridge Office Estate? To what extent does the La Lucia Ridge Office Estate meet the expectations of the range of stakeholders (developers, investors/financiers, local authority, clients to firms, employees, firms) involved in this office park development and what are the implications for urban planning?

a) Nature of the Study

The following questions are questions that will guide the research in its investigation of *Distant Decentralised Office Parks*. These questions cover the issues under investigation with respect to the case study of the La Lucia Ridge Office Estate. At times there will be a brief reference to the office park patterns or trends in Johannesburg. However aspects of the Johannesburg office parks will only be drawn upon for comparative reasons. Due to the time constraints this research is unable to give a detailed study of the office parks in Johannesburg. The scarcity of time and dearth of readily available data constrained this study to be limited to the one area of Durban, i.e. Umhlanga. However the conceptual framework and methodology that has been utilised can be applied to other office park studies. Thereby permitting the recommendations and the conclusions to be equally generalised.

Questions guiding the research

- What processes of spatial and functional change have resulted in the distant decentralised office parks?
- What was the intention of local government in regards to permitting the office park development?
- What was the intention of the developers?
- What was the intention of the owners of individual building space?
- Which firms locate at these office parks and why?
- Do these firms rely on any linkages to other firms or associates.
- Did such locations result in any added expenses to the firms e.g. added travel allowance/grants for employees that are unable to accommodate the increased travel cost to the distant location?
- What are the locational implications for the various stakeholders (e.g. travel costs, time, convenience etc. clients or interested parties that have to attend meetings)?
- Were there additional costs for the employees in this distant location?
- Did people resign due to the distant location?
- Are the people happy working in such locations?

- What are the responses in terms of gender, i.e. is there a preference for the location by a particular gender?
- Is the park convenient in terms of workers doing their errands during lunch?
- How accessible is the park to its stakeholders, i.e. the transport implications for clients and workers, including public transport for the lower skilled employees?
- Is the parking adequate, especially if private car ownership is dominant?
- How safe is the park, especially if people have to work late (are people prepared to work late)?
- For what levels of skills are these parks suitable?
- Did the park achieve its aim / objective

These distant decentralised office parks may be better suited for some firms as compared to other firms. The distant location may also be suited for firms that employ a particular level of skills as well as firms that entail a particular type of service. The research problem and the research question leads to the formulation of the hypothesis of this study.

iii) Hypothesis

The La Lucia Ridge Office Estate does not meet the needs and expectations of all its stakeholders.

1.4. Focus areas of the research

The research firstly targets the macro issues of planning and the implications facing planners. To begin with, the macro issues are those of the choice of the locations of the office parks, the projections of land use change for office park development and the general geographic implications for such developments i.e. issues of spread and sprawl as well as distance from the CBD. Hence macro issues are concerns for planners at a broad scale, i.e. where do office parks locate.

The second issue is that of the micro factors of these office parks. A number of micro issues have been identified and will be researched further if it is important or relevant to the topic. The research begins by identifying the mentioned stakeholder groups and their relevance to the empirical data. Thereafter the focus of the empirical research will be on the 'local' issues of the La Lucia Ridge Office Estate. The local issues refer to the conditions, functions and implications of the La Lucia Ridge Office Estate. Some of these issues include the investigation of the factors that affected the workers with different levels of skills in the park, the consequences that may face the firms in their decision and choice of location. Hence the overall concerns of micro issues are the employees and employers perception to the immediate environment i.e. in the office parks.

1.5. Conclusion

This chapter has introduced the focus of the research together with the specific research problem and question. The terms that were discussed were identified as being important, and therefore had to be understood at the outset of the research. The research focuses on two levels, viz. the decentralised office location patterns, and the impacts on the employees when firms relocate into decentralised locations.

The findings of the research will consider whether the park has achieved its objectives from the point of view of the property developers, the employers, employees and the investors. Points to be considered include whether or not the people enjoy the office park environment, is there adequate security, were the property developers and investors predictions (on the demand for office space in the park) correct, does the office park allow for technical innovation and does the park create a better working environment?

1.6. Chapter Outline

The study consists of three distinct parts. However the dissertation is not fragmented into these parts, instead the presentation of the research flows from chapter one to chapter nine. In order to comprehend the structure of the research, the different parts of the research are stated briefly. Part one contains the introduction, theoretical framework and background on office location patterns. Part two contains the case study, the study area in relation to the Durban region and the data analysis from the field research. Part three contains the implications for planning and the recommendations for planning as well as a conclusion to the entire study. This study is divided into nine chapters that are linked by a brief introduction into each chapter and a synthesis at the end to ensure a flow of discussion. This structure has been adopted to ensure continuity and coherence whilst also maintaining focus of the study.

Chapter 1: This chapter sets out a broad introduction to the whole study and introduces aspects of the case study where relevant. The research problem, question, hypothesis as well as the subsidiary questions are set out at this point. The scope and limitations of the study will be included in this chapter. A motivation and interest for the topic is justified in this chapter together with previous work that has been done to date as well as what the contribution of the study will be. This chapter ends with a detailed chapter outline of what is to follow in the continuing chapters of the study.

Chapter 2: The chapter begins with a brief introduction, stating the aims of the chapter. The research methodology is included in this chapter, stating the brief overview of the sources of information, the sampling techniques and the nature of data each of these will provide. This chapter explains in detail the method that was utilised to divide the firms into the different sectors. This chapter consists of the list of firms, the staff size of the firms, the stakeholders that were interviewed and the limitations to the study.

Chapter 3: This chapter opens with a brief introduction setting out the aims of the chapter. It then states the philosophical position of the study by discussing the underlying theories that have been utilised to explain the phenomena of distant decentralised office parks. In this chapter the functional and physical aspects of the offices are explored together with the psychological implications of the office location and structure on the employees in the work environment. The chapter starts by stating the chosen theoretical frameworks. It then briefly discusses the forces of supply and demand which stem from the neo-classical economics framework quoting examples from the South African experience in terms of office location. Further theories with relevance to the topic are discussed and critiqued, including the office location theory together with the relevant literature bodies and concepts. International and South African literature are drawn on, showing the importance of space ergonomics, and the shift of office design and requirements. The economic aspects of offices are drawn on with the most important aspect being that of information and technology. Hence making the technological paradigm a focus in order to understand its impacts on decentralised locations and the decreasing importance of a central location. There is a discussion of the internal and external pressures that are placed on firms before they decide to relocate. The overall aims of this chapter is to establish a theoretical framework that enables an understanding of why offices begin to locate in decentralised office parks.

Chapter 4: This chapter begins with a brief introduction. This chapter contains literature and statistics on office location patterns in Durban as well as office patterns in the country. This chapter ends office space demand in the country, in Durban and it alludes to the need for the office space that is provided in the case study. A brief conclusion is given at the end of the chapter.

Chapter 5: This chapter formally introduces the case study i.e. *The La Lucia Ridge Office Estate* which has been alluded to from the outset. It serves to trigger detailed, focused and informative study of the firms located in the La Lucia Ridge Office Estate. It begins with a brief background on the study area. It then places the office park in the context of Durban and the Umhlanga subregion. This chapter discusses the development process and the interest and

roles of the stakeholders in the development process. This chapter ends with a brief conclusion.

Chapter 6: This chapter looks at the various aspects of design, layout, parking, security and architecture of the office park in order to establish the attractive forces that could of influenced some firms to locate in the office park. This chapter ends with a brief conclusion.

Chapter 7: This chapter contains the analysis and presentation of the findings that resulted from the field research. The findings will include results to the subsidiary questions set out in chapter one as well as any aspects that were said to be investigated in relation to the case study in the preceding chapters. The results are then linked to the reasons for decentralised office locations that formed the theoretical basis. This chapter ends with a brief conclusion.

Chapter 8: This chapter explains the main themes that evolved from chapter 6. This chapter discusses the impact of the office park on the surrounding land uses in the Umhalanga area. It also looks at the implications of the themes for planning. This chapter evaluates the hypothesis and sates whether the hypothesis was affirmed or refuted. This chapter ends with a brief conclusion.

Chapter 9: This chapter contains the recommendations for further research and a conclusion to the study

Chapter 2- Research Methodology

2.1 Introduction

This section of the research will deal with the methodology that will be utilised in the collection of the relevant data, both primary and secondary sources. Firstly, the method that has been utilised to collect primary data will be discussed, followed by the methods that had been utilised to collect secondary data. The research strategy has been designed by the researcher in order to achieve an overall framework that sets the format of the study.

This section of the research will explain in detail why the particular research methods have been selected. It will also explain what each method hoped to achieve. This section will further give details on how the sample population had been selected and how the firms had been stratified. This section was deemed necessary because the research method was complex, when it came to selecting a sample for the employer and employee categories. The classification of firms into their functions or type of services that they provide needs to be explained so that the findings in **Chapter 6** can be understood. The classification of firms into their respective categories was important since the study aims to suggest for which type of firms and for what level of skills the location of the Office Park is best suited. The study relies heavily on the statistics that are quoted, therefore the process by which the statistics were obtained is important.

The research undertaken is exploratory. The approach that has been adopted is one of critical realism. This approach utilises both qualitative and quantitative information. This approach has been selected because it places the problem in a social setting, which is part of an important focus area in this study. The social setting is researched in the form of surveys in order to establish the employees' views on the firms that relocated from their previous location and the convenience of the firms' new location to the employees. This approach also looks at the probable truths- truths which could change over time e.g. public transport may be a problem now but it may not be a problem a few months or a year from now.

Figure 1 explicitly illustrates the research methodology that this study has assumed. The numbers below the “Process of Accomplishing Aims & Objectives’ box, represents the sequential order that this research has assumed.

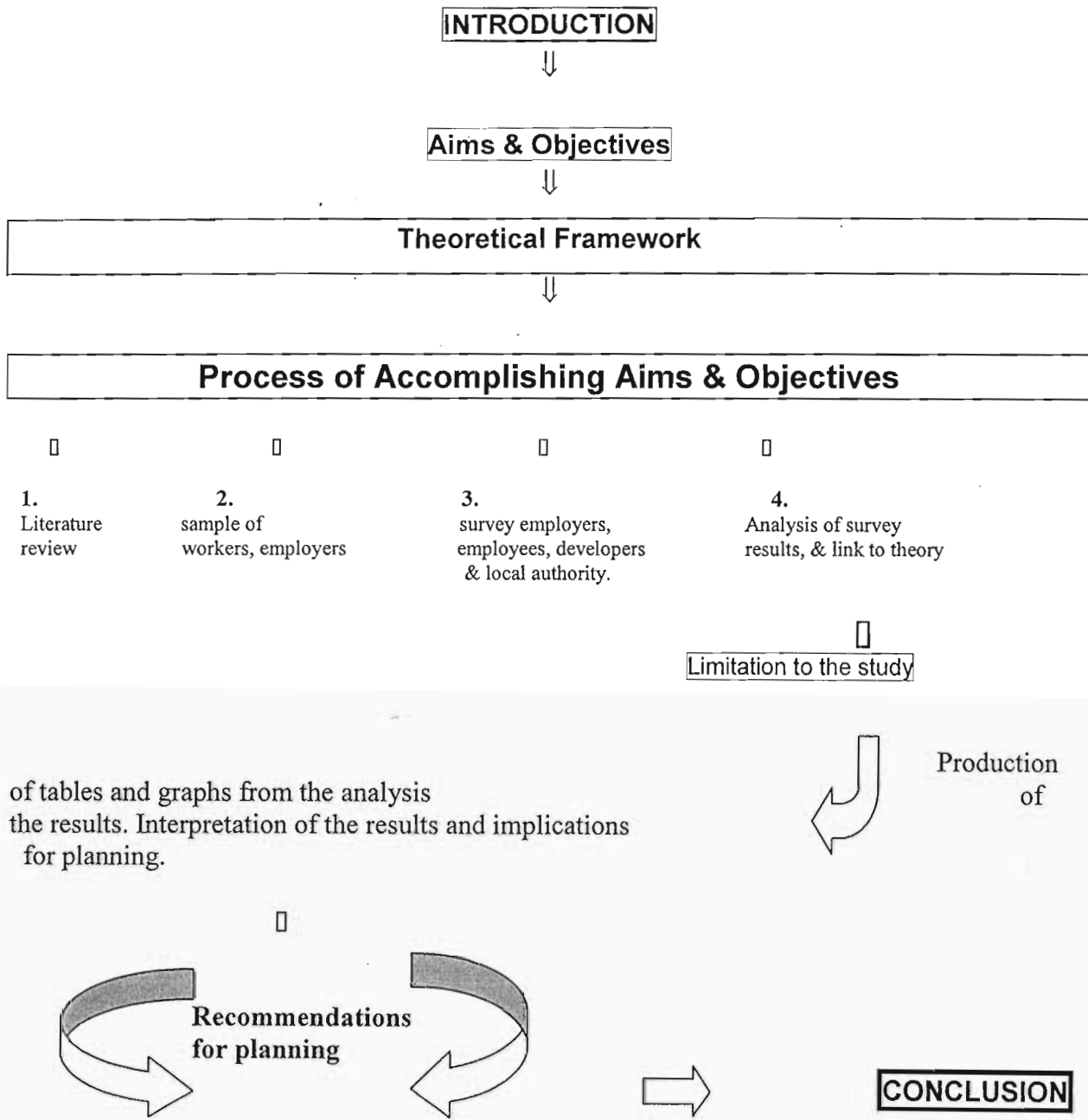


Figure 1: the process of the research methodology of this study

Collection of Primary Sources of Data

2.2 Listing of Firms in the office park

In keeping with the research problem as stated in chapter 1, the initial part of this field research involved classifying the firms that exist in the office park into particular categories. A list of the existing firms in the La Lucia Ridge Office Estate had to be constituted before the firms could be separated into the particular categories. **Table 1** below discloses exactly what firms are found in each 'mini' Office Park (the 'mini' Office Parks are discussed in detail in **Chapter 5**) and which sector each firm falls into. The reason for separating the firms according to the 'mini' Office Park that they were found in, is important because it enables the researcher to notice if there is a clustering of firms that perform a similar type of service in any of the 'mini' Office Parks. The firms in the table that have an asterisk next to it, are firms which belong to one holding company that consists of subsidiary firms all of which are established in the office park.

Park Name	Firms	Sector
Pencarrow		
1	Deloitte & Touche	Finance
2	Scott Wilson S.A	Engineering
3	EYJDE	Computer/IT
4	TMT	Transport
5	SBDS	Engineering
6	JD Edwards	Computer/IT
7	First Central Insurance Limited	Finance
8	S.A Express Line	Transport
9	Portnet-Special Projects	Transport
10	Radiospoor	Other
Frosterly		
1	Abraxxas	Computer/IT
2	Toll Tech.	Other
3	ISPACE	Computer/IT
4	SARKUM housing	Other
5	F&I business school	Finance
6	Crystal Holdings	Finance
7	Computer Association-Africa Ltd	Computer/IT
8	Hilton Naish & Associ	Finance
9	Megacor Holdings Ltd	Finance
10	Srokes and Co.	Other
11	HLb Burgess Clinton	Finance
12	Southern Telecom	Other
13	Franklin Templeton	Finance
14	PQ Africa	Computer/IT
15	*BUS Consulting	Computer/IT
16	*QEDI Ecnec S.A	Computer/IT
17	*Q Data Internet	Computer/IT
18	International Underwriters & Admin	Other
19	South African Underwriting	Other
20	Crystal Holdings	Finance
21	L@w (Lawyers Access Web)	Computer/IT
22	Combined design engineers	Computer/IT
23	FSA Contract	Other
24	BOE Corporate	Finance
25	Aggregate Pty Ltd	Other
26	Jakko Povry	Engineering
27	Li Fung SA (Pty) Ltd	Other
28	Emc2	Computer/IT
29	Shepstone and Wylie	Other
30	Imperial Bank	Finance
Torsvale		
1	Michael Ward Brokers	Finance
2	Bradfin	Finance
3	HOM Accounting	Finance
4	Sugar Engineering	Engineering
5	Alexander Forbes	Finance
Cranebrooke		
1	Q Data	Computer/IT
2	PQ Africa	Computer/IT
3	Outsource	Computer/IT
4	CAT-consulting in advanced tech.	Computer/IT
5	USKO-computers	Computer/IT
6	Adams & Adams_ Attorneys	Other
7	FCB Lindsey Smithers Bond	Other

Table 1: (above): Firms that are found in the specific ‘mini’ Office Parks

2.3. Classification of firms into the different sectors

Upon analysing the type of service that each firm offers in the La Lucia Ridge Office Estate, the firms were then divided into the specific categories. These specific categories of firms are important because when the results from the different categories of firms are compared, the results will inform the conclusion i.e. to which firms the distant locations are best suited as well as to what level of skills, what type of skills and for what type of firms these decentralised locations are best suited.

2.3.1. The categories into which the firms were divided into, are:

- ◆ The Accounting/Finance sector
- ◆ The Computer/ Information Technology (IT) sector
- ◆ The Engineering sector
- ◆ The Transport sector
- ◆ The other (firms that did not fall into the above mentioned categories e.g. attorney’s firms, advertising agencies, firms that trained people etc. Refer to Table 1 for a list of firms in this category) sector

The sample size for the research was determined by the number of firms within each category as well as the population size within each category of firms. This enables fair representation of each category of firm.

Table 2 below exhibits the number of firms within each category and what percentage each category of firm makes of the total percentage of firms that were already established in the office estate (includes all the mini office parks) during April of this year (1999)

Table 2. Percentage of each sector in the La Lucia Ridge Office Estate.

Classification of firms	No. of firms in the Office Park	Percent of total no. of firms
Finance / Accounting	16	34,0
Computer / IT	13	27.7
Engineering	3	6.4
Transport	3	6.4
Other	12	25.5
TOTAL	47	100,0

Table 2 clearly illustrates the finance and accounting sector makes up the largest (34%) number of firms in the office park.

The computer and informational technology sector also consists of a large percentage of firms in the Office Park i.e. 27.7%.

Quarter of the firms fall into the other category i.e. 25.5%. The size of this category of firms is almost similar to that of the computer/IT category, which is 27.7%. The 25.5% of firms that fall in the other category indicates that there is a mix of firms that are found in the Office Park, implying that the office park location is suitable to firms other than the finance/accounting and computer/IT sector of firms.

These percentages serve to inform the researcher as to which sector of firms the decentralised office park is best suited. These sectors are important when the researcher is conducting the questionnaire surveys.

2.4. Population size and sample selection

The sample size was determined by the size of the population in each type of firm. Once the firms were grouped into categories, the population in each firm within that category was calculated. For example, the number of people working in each firm that fell within the finance/accounting sector was added up. The size of the population and the percentage of the categories make-up of the total number of firms category determined the sample size for that category. For example, since the finance/accounting sector contained a larger percentage of firms as compared to the other sectors, as well as a larger population, more samples were drawn from this sector, compared to that of the transport sector. This information was drawn from Tables 2 and 3.

Employers and employees were surveyed. The employer category consisted of people that occupied senior positions viz., director, partner, member, manager, and had influence or insight into the firms' decision making because they would then have the answers to the specific questions that were asked in the employers survey.

Table 3: Sample size in relation to the population size (showing the number that was eventually surveyed)

Category	Population Size	Employers		Employees	
		Ideal no.	No. surveyed	Ideal no.	No. surveyed
Finance/Accounting	804	8	8	24	24
Computer/IT	586	6	4	18	18
Engineering	49	2	3	3	3
Transport	88	2	2	2	2
Other	164	6	2	5	4
TOTAL	1691	24	19	52	51

2.5. Stages in the field research

Stage 1: Research Questions

The survey questions had been constructed with the subsidiary questions in mind in order to analyse the results in light of the hypothesis that was stated in chapter 1.

Stage 2: sample selection

Table 3 above displays the number of employees and employers that were eventually surveyed and the number of employees and employers that should have been ideally surveyed. The ideal sample size could not be surveyed due to the limitations that are stated in section 2.7. However the number of surveys that were completed in both the employer and employee category has been an adequate number of surveys. The sample population was issued with the questionnaires that was designed in accordance with the subsidiary questions, in order to gain responses to the subsidiary questions that were stated in Chapter 1. A pilot survey was carried

out before the total sample population had been surveyed. **Appendix 1 and 2** contains the surveys that were issued to the employers and employees respectively.

2.5.1. Phasing of interviews

The stakeholders were interviewed in phases. The reason for this phasing was to ensure maximum feedback from the necessary stakeholders.

1. The developers/planners/landowners- these individuals were interviewed to understand the aims and objectives of building the La Lucia Ridge Office Estate and why the Umhlanga area was chosen to locate the office park. More importantly the reason for deciding to locate offices into the selected site. This particular stakeholder group was interviewed before the surveys were completed.
2. An official of the Durban Metropolitan Council (DMC) was interviewed for her insight on office parks in Johannesburg and the reason behind those office selecting the locations that they did. This was necessary to place Durban's office trends in the light of what has been happening in Johannesburg to review if any mistakes that were made in the office parks in Johannesburg were not repeated in the La Lucia Ridge Office Estate.
3. The people that designed the La Lucia Ridge Office Estate were interviewed after the surveys were complete so that the issues that were raised in the surveys that pertained to the design aspects and the functioning of the Office Park could be clarified.
4. An official from the North Local Council (NLC) was then interviewed to find out what such a development, i.e. the office park, means for the that local authority i.e. the NLC. This interview was also aimed to establish the relationship that existed between the NLC, the landowners and the developers.

5. An expert was then consulted on office location and office take-up in Durban. The expert was consulted with at the end in order to establish how the firms' needs in this office park differed and also for the expert to comment on the reasons that were given by the employers for their decision to locate into the La Lucia Ridge Office Estate. His opinion is also important on why firms are moving out of the CBD (as the survey results reflect)

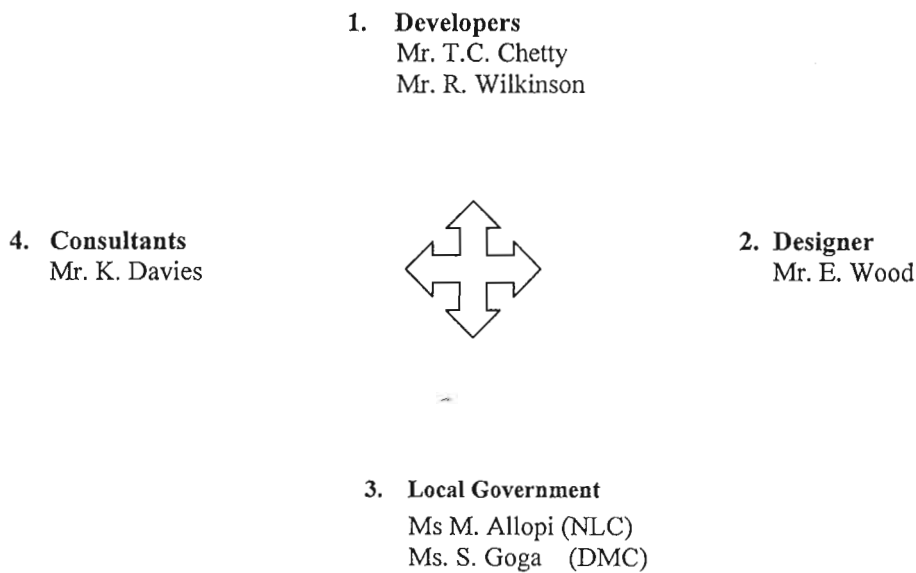


Figure 2: Schematic representation of the four stakeholders that were interviewed

1. Developer interviewed before questionnaires were complete.
2. Designer interviewed when the field research was complete and part of analysis was complete.
3. One official of local government (from north local council) was interviewed at the end of the research and one member (from Durban's metropolitan council) was interviewed during the initial stages of the research i.e. before the surveys were complete.
4. Consultant interviewed after the final analysis was complete.

2.6. Surveying Methods

The study area is seen as a vital part of the Umhlanga area (and to the Durban Metropolitan area as a whole), and as such the research that is done within the confines of Office Park should provide an adequate picture of the rest of the Office Park. In developing a proficient and competent understanding of the employees and employer in the La Lucia Ridge Office Estate, the following techniques were utilised:

- i) Employee questionnaire survey
- ii) Employer questionnaire survey
- iii) Formal interviews
- iv) Personal observation survey
- v) Employer interviews

i) EMPLOYEE QUESTIONNAIRE SURVEY

The employee questionnaire survey attempted to gain a broad understanding of the nature and dynamics of the specific sector of firms that were locating in the office park. These surveys allowed for a comparison between the employers and the employees. This survey also aimed to collect quantitative and qualitative data. This survey aimed to gain insight on employee travel patterns and experiences with their daily travel pattern and travel cost. This survey hoped to obtain the attitude and perceptions of employees who had to relocate.

ii) EMPLOYER QUESTIONNAIRE SURVEY

The main objective of this survey was to gain insight on the functioning of the firm. Employers knew why the firms moved and whether employees resigned once firms relocated. This survey aimed to collect both quantitative and qualitative data. This survey aimed to gain insight on the employers travel patterns and their experiences with travel cost. This survey hoped to obtain a quick broad sense as to why firms were locating in the office park.

iii) FORMAL SECTOR INTERVIEWS

The formal sector interviews were conducted with people from a range of public and private sector organizations, all of which have been related in some way or the other to office decentralisation or to the case study. The aim of these interviews were to gain an understanding on factors that influenced decentralisation and to understand decentralisation and the case study in a broader development picture, i.e. decentralisation in relation to the regions development. This sector of interviews enabled the researcher to acquire greater depth on office location patterns and the needs of office activities.

iv) PERSONAL OBSERVATION

The primary reason for this method of survey was to develop a comprehensive understanding on employees and employers activities, i.e. how do the majority of employees travel to work, how many use the public bus, what they do during their lunch break (do they walk around in the beautiful surroundings). This research method enabled the researcher to observe the different modes of public transport and their frequency as well as their destinations. It also enabled the researcher to test how friendly the office park design was to a pedestrian (viz. the employees, or any one that walked from a bus stop, or from one building to another)

v) EMPLOYER INTERVIEWS

These interviews were conducted whenever the employer had time to spare. These interviews hoped to gain greater insight about the firm's needs and the employers personal feelings on other office locations available, the firms previous office location as well as on the La Lucia Ridge Office Estate. These interviews allowed the researcher to draw comparisons between the employers and employees responses.

Secondary sources of data

2.7. Secondary Sources

The common secondary sources of information that were utilised are namely: books, journals, published and unpublished articles, reports from the respective council, previous dissertations, the world wide web, environmental reports, maps, structure plans, documents from SAPOA, and newspaper articles.

All the above mentioned sources of literature, that respond to office location patterns, will be carefully scrutinised and thereafter utilised to develop a broad picture of office location trends, encompassing both the national and international experience. These bodies of secondary information will respond to the sub-questions that investigates the choice of office location, developers aims of office parks, the international trends and local trends of office parks, the reason that office parks are becoming a preferred location for a number of firms, the attractiveness or the "pull factors" into suburban locations, and the unattractiveness or the "push factors" from the previous locations or the CBD.

The secondary data analysis led to the development of a conceptual framework that will attempt to explain office decentralisation and the preferred office locations for particular office sectors. The analysis of the theory in relation to the research thereafter leads to the formulation of guidelines or recommendations for planning. The critical review of bodies of literature that relate to office decentralisation develops an understanding of the research problem. In addition, the secondary sources of data helped to develop a rationale for the study.

The objective of analysing the secondary sources of data is to develop an appropriate conceptual framework.

2.8. Limitations to the study

The most difficult part of the research was keeping up with the continuous influx of new firms into the La Lucia Ridge Office Estate. In order to establish a fair representative sample of the total population, only the firms that had already moved into the office park as off April 1999 were part of the study. An exception was made when one firm with a large staff size had moved out and another firm had moved in with a similar staff size and fell into the same sector of firms (i.e. the finance sector), therefore the new firm was included into the study.

- When the surveys were been conducted, the employees were accessed with relative ease in the firms of the various sectors. At times the questionnaires had to be left with the employees and fetched in a day or two days time.
- Issuing surveys to the employers or at management level were more difficult because the employers were often busy or in meetings. It was therefore necessary to visit the firms on more than one occasion and at times the questionnaires had to be left at the firm. Whenever possible the researcher discussed issues of relevance to the study regarding the factors that influenced the employers decision to locate in the office park and any comments that they had on the location.
- The interviews were conducted with ease. All the stakeholders were extremely helpful in providing the researcher with adequate information. The time dimension was a crucial since a total of seventy-one questionnaires had to be conducted by the researcher during a short period of time.

2.9. Conclusion

This section detailed the exact process of data collection for the research since the study relies on a considerable amount of data that is collected via primary sources. The concluding step in the research process is that of the evaluation, analysis and the integration of the data that had been collected from the secondary sources through the primary sources, including both the interview and survey data. The data gathered had been analysed in view of the subsidiary questions that were explicated in chapter one. The results from the final step are included under the analysis part of this research (i.e. part two of the research). It is important to understand the research methodology that the researcher adopted, so that the logic behind the dissertation can be understood.

Chapter 3-Theoretical Framework

3.1 Introduction

The question that now comes to the fore, is what relevant theoretical framework can be utilised in order to explain the distant decentralised construction of office parks occurring within the Durban Metropolitan area. This chapter of the dissertation will set the theoretical framework that will shape the research process. The theoretical framework for this topic will involve an eclectic approach i.e. there is no one set theory for explaining the office decentralisation pattern, therefore different theories will be brought together in order to explain the current trends in office park locations. Different concepts will also inform the study to a large extent. The theoretical framework will also draw on international and local examples, in order to explain the relevance of the theory and concepts in relation to the topic. This research will therefore outline the evolution in the *theory of office location*, proceeding to the analysis of suburb locations and then moves into the driving forces behind the choice of the distant decentralised locations.

This section will essentially inform the rest of the study. It fundamentally entails a critical literature review and will represent an analysis of the relevant theory and concepts that can be applied to office decentralisation.

Due to the nature of this study, it was not necessary to undertake any substantial review or critique of planning theory. There is recognition of the critiques in both the theory *in* planning (substantive aspects of planning) and the theory *of* planning (the procedural and normative aspects of planning). Therefore, the theoretical framework consists of a synthesis of approaches within the theory *in* planning and those that fall within the theory *for* planning domain. Theory for planning deals with the context in which planning takes place. It is important to locate and develop a planning theory that is located within the unique context of South Africa.

The theoretical framework used will be that of the Neo-classical economic theory. The pertinence of this theory in respect to the topic is the relevance of the factors of supply and demand. The other theories that will be drawn on will be that of Land Use Economics and the Property Market in explaining office location whilst focusing on the supply factors of office decentralisation and components affecting the supply factors. There will be reference to the technological paradigm, since the increased technological innovations, reduces the importance of space and location. The land use location theory will be utilised to assess how land values are determined, an aspect which in turn will determine the rent value and accessibility of the office park. This theory will further link to J.B Goddard's (1967) office location theory as well as Alexander (1979) analysis of office location. In addition Von Thunen's theory on land use will be discussed in order to expand on the understanding of land use values. Daniel's (1975) contribution to office location will also be cited, in an attempt to explain office location patterns.

Figure 3 clearly illustrates the proceeding of this chapter in order to present the theoretical framework and literature review in a logical form.

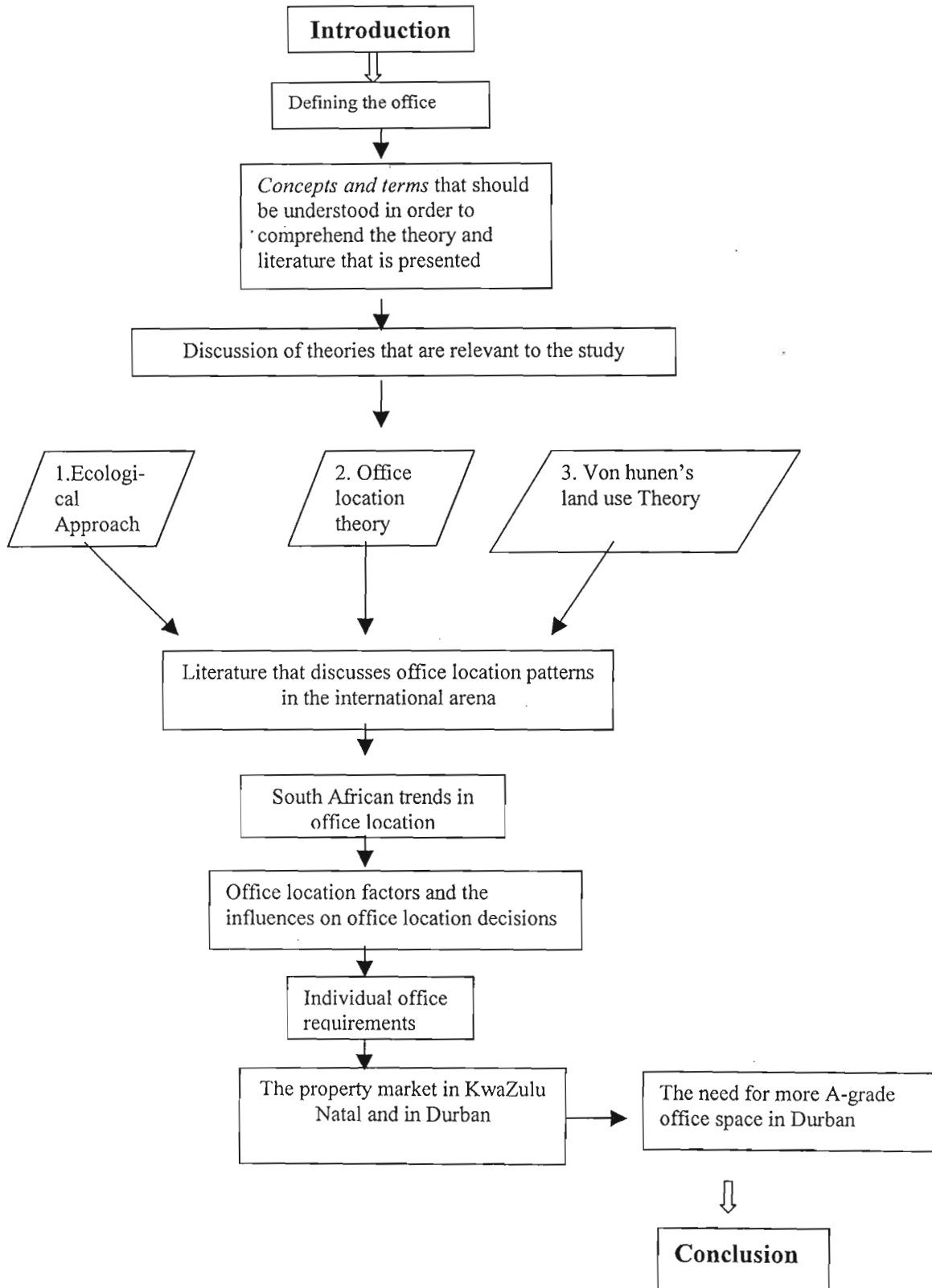


Figure 3: Diagram illustrating the methodology of the theoretical framework and the literature review

3.2. Defining the Office

The word 'office' has many meanings, but its first meaning is a service. In the Concise Oxford Dictionary, the definition of the office is, " a place of authority or trust or service, a tenure of official position, a place for transacting business, a room in which the clerks of an establishment work, a counting house, room in which any kind of administrative or electrical work is done, room set apart for business of particular department of a large concern, a local branch of an organisation, a company for a specified purpose; quarters or staff or collective authority of a Government department."

Goddard (1975:3-4) views the functional concept of the office in three categories.

1. **Office activity**-refers to individual jobs that involve dealing with information, ideas or knowledge.
2. **Office occupations**- refers to groups of office activities handling similar types of information in a similar way.
3. **Office organisations**- is formal groupings of different office occupations. The pattern of formal and informal links between different office activities defines the structure of the organisation.

Together with the above mentioned functional concepts, offices can also be defined by the physical space they occupy. Goddard (1975) list the physical concepts as:

1. **Office buildings**- workplaces whose principal use is for office type activities.
2. **Office establishments**- physically separate locations where office activities are conducted.

Goddard (1975:4), therefore maintains that office activity can be measured in terms of “employment (classified by both occupation and sector), office buildings, or more specifically floor space devoted to office usage and office establishments”

This occupational definition has come to dominate in planning literature and will be utilised in this study.

3.3. Research that has been done to date

The contribution of this study to the town planning fields and to the arena that is being researched is important. This section will therefore state what research has already been done in the selected field of study, and the additional information that this research hopes to contribute.

This study looks at both the supply and demand aspects of office location. A study is currently being conducted in Johannesburg, focusing on the decentralised construction of offices, as part of a doctorate research. This study will draw on the trends in Johannesburg. Other studies looked at office dispersal in general looking at the Berea and Westville. A previous study has focused solely on the effects of decentralisation on the workforce.

Distant decentralised office parks have not been a focus in prior research. There is little literature review on the demand (firms, clients that want to invest in office park developments, and the workforce) aspects of office location. This study will expand on the reasons for offices locating in these suburbs.

The concept of demand will be referred to extensively, therefore the concept needs to be unpacked and discussed fully to avoid any misinterpretations. The first type of demand is a reference to the property market i.e. demands due to the attractiveness of the La Lucia Ridge Office Estate and distant office parks in general. The second type of demand is that of induced demand or transferred demand i.e. when people are forced into locations because no

other office space is available to accommodate the changing office requirements and the only alternative are the distant office parks.

3.4. Useful Concepts

The following concepts will be drawn upon and the context in which they are used need to be understood. These concepts are:

- **Decentralisation:** the movement of, in this research, of offices into distant office parks away from the traditional, central CBD locations.

- **Suburbanisation:** This is referred to in the context of research as locations that produce an alternative living, working and manufacturing environment, usually far away from the city centre towards the edge of the metropolitan areas. Suburbanisation is also considered in terms of the expansion dimension for such parks for future use in terms of expanding office premises. This concept looks at the attractiveness (pull) factors of the suburbs.

- **The push - pull factors:** These factors, are factors that are responsible for "pushing" the offices into the office park locations, and also considers the "pull" factors of the suburban location. This concept is applied in conjunction with the concept suburbanisation in exploring why offices locate in suburbs and what constitutes an attractive environment in these suburbs.

- **Spread:** This concept with regard to the topic looks at the physical patterns of offices and their 'spread' away from the central location into location further away into office parks. This concept will look at examples of what is and has been happening in the international arena in terms of office location.

- **Zoning:** The concept of zoning is used as 'the set of legal terminology for controlling and regulating development.' This concept is of importance in the research because the study area had been rezoned from its previous agricultural land use to the present commercial land use. This concept is used to understand why the local authority accepted a low bulk project.

- **Technological paradigm:** This paradigm looks at the compression of space and time, and it as well as the focus on product instead of process. Reference will be made to M.Castells *informational city* analysis in terms of the concept's relevance to the topic. This concept is used to understand why some firms do not have to be in a central location to function, especially with technologies that link firms into a networking system, where communication in a face to face manner is no longer necessary.

3.5. The Ecological Approach

The Ecological Approach to urban land use is concerned with a description of the structure of the city. The essence of this approach lay in the belief that land uses, functions, institutions and people compete in the urban land realm, through a number of processes such as invasion and succession, segregation and decentralisation (Kahn,1984).

The Ecological approach to the urban structure such as, the Burgess (1925) Concentric Zone Theory, and the Sector Hypothesis by Hoyt (1939) who expanded on Burgess's concentric zone theory, have little relevance to office activity except to suggest that all the city's commercial activity concentrates in the central area.

However the Multi- Nuclei model of Harris and Ullman (1945) does recognise that there has been a great dispersal of commercial activity in most cities of the developed world. The ecological approach does not provide a basis for an explanatory theory of either the concentration or dispersal of office activities within the cities.

3.6. Office Location Theory

A social psychologist once chided an economist: “ *You may say that prices are determined by supply and demand, but I know that they are determined by the people*” (Graham Hallett, 1979, Urban land Economics)

This argument has been regularly applied to the property market. Bouldings’ (in Urban Land Economics, 1979:36) reply could hardly be bettered: “ It’s quite true that like every other aspect of economic and social life are the result of decisions by people, and economists would do well never to forget this”

Research has shown that a increase in demand and supply would mean an increase in rent values. However the **Urban Location Theory** (P.N Balchin et al,1991) states that the location of an activity is determined by a mixture of interacting influences, that explains the locational decision. The location is therefore selected once the advantages and the disadvantages of the possible locations have been weighed out. The importance of this theory is two folds:

- **firstly**, it is used to understand and explain the selection of the office park (case study) site from the supply side i.e. the investors, local government, landowners, and property developers,
- **secondly**, it is used to understand the rationale behind offices that eventually did locate in the park.

On that account, it looks at the overall assumptions from the supply and demand side that will eventually lead to the advantages outweighing the disadvantages. However this assumption neglects the workforce. Do the firms that locate in distant decentralised office parks consider

the impacts on the employees in terms of travelling cost, efficiency of public transport, and increase in time and convenience of the new work environment?

3.6.1. Role of Communication in the Office Location Theory

Alexander (1979), Daniels (1975) and Goddard (1975) all suggest those offices with strong linkages to the CBD decide against locating in distant locations away from the CBD. However the literature does not address issues of firms that locate for the first time into the decentralised locations. Literature by Castells (1989) suggests that distance becomes less important as telecommunications have begun to innovate, accommodating firms that do decentralise. He also argues that old buildings become obsolete due to the specific requirement need by technological advancements. However the authors of location theory state, that face to face communication is still necessary. Also the underlying assumption of the location theory is that the rents diminish as one moves away from the CBD. But the location theory states the contrary.

Communication between any strata of office activity is achieved along physical channels, such as roads, railway, and airlines, or by means of telecommunications. The latter permits the transfer of information in the form of visual, audio, printed or a combination of one or more forms over any distance and during a short period of time (Daniels,1975)

Different activities, performed by specific sectors of a firm require different forms of communication. A central location is apt, if there is a large proportion of personal contacts that require meeting clients or other firms in order to minimise costs. The executives travel time to meet clients is an important cost. Therefore, if the executive spent a lot of time travelling for personal communication, then the higher the cost.

Australian studies by Scott (1959), New York studies by Hoover and Vernon (1959) and studies on Cape Town by Davies (1965) said that the need for concentration amongst decision makers was due to their need to maintain significant face to face contacts. They also noticed

that some firms leaving the CBD for suburban locations, because they require little contact with the central functions. These studies relied on a behavioural hypothesis and location patterns instead of any actual study of office linkages.

Goddard (1971 & 1973) went on to determine the importance of contact patterns as a locational constraint. Goddard's study led Alexander (1974:24) to conclude that "not all office types are equally dependent upon face-to-face contacts, instead the majority are not"

Gilbert (1977) gave a similar response in his study of Durban. Concluding that the primary linkage cluster as being the financial one. Goddard (1977) in addition stated that that contact could be facilitated by location/proximity but it is not essential for an efficient working of a business. Telecommunications play an important role in the development of cities and in turn the pattern of office development. Pye (1979) states that spatial constraints could be reduced by telecommunication, which provides alternatives to face-to-face communication, physical/manual transportation of documents and physical accession of records. Pye's view is strongly supported by Castells (1989).

3.7. Von Thunen's Theory of Land use

This aspect will be important to understand the case study area since the rent value together with the land value will influence how affordable the location is to the broader office sector. However, a point of research will therefore be, how does the decentralisation alter the land use values, that in turn influences the rent gradient. (The following chapter will discuss the office vacancy levels in South African suburbs, when compared to those of the vacancy levels in the CBD).

Urban economics emerged out of and in reaction to, the classical (Ricardian) theories of land use advanced by the likes of Von Thunen (McCarthy and Smit 1984:26). Von Thunen developed a rationale for the distribution of land use and land rents around a central place based on conditions in Germany.

Some 130 years later there was the resurrection of Von Thunen's theory of land use by economist Losch and Alonso who provides a view on the subject of land use and land rent, to formulate the concepts into a neo-classical variation (McCarthy and Smit,1984:24)

The rent theory inquires to explain the relationship between land use location and rent. Alonso's approach foresees a land use pattern that is similar to the Burgess (1925) model.

The land user gains cheaper land prices or rent as the land user moves away from the city centre. However the land user is separated from the potential market or work place and transport costs increase. **Figure 4** illustrates land users are therefore prepared to bid for land at differing rates. The bids do of course occur under specific ideal economic conditions.

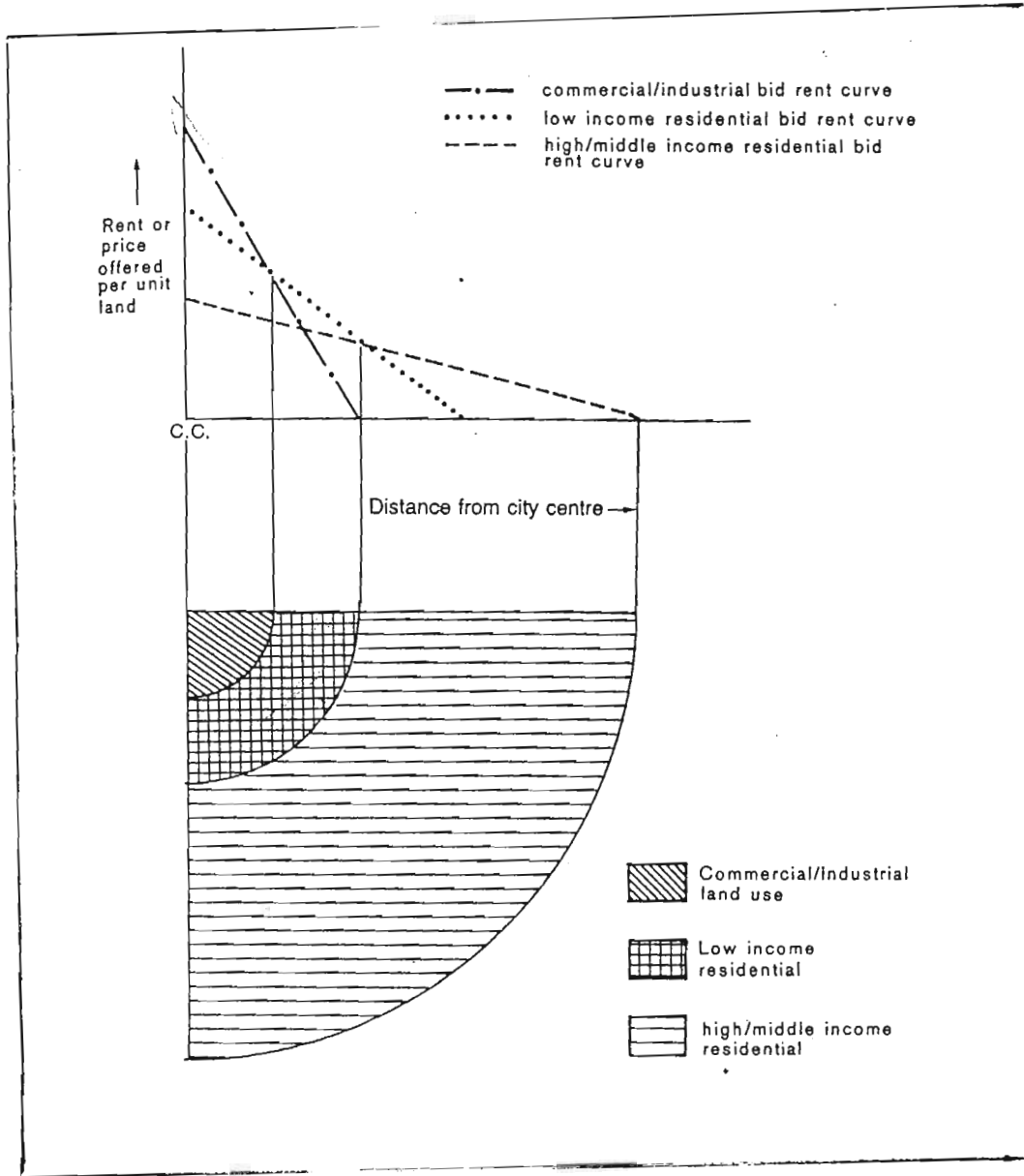


Figure 4: The application of Von Thunen's bid -rent curve to urban land use

Source: McCarthy & Smit, 1984, pg. 31

It is suggested by Haig (in Daniels,1975) that the arrangement of activity in cities are determined basically by their differential desire for the ability to pay for the accessibility to the advantages of a central location. The term accessibility is used in the sense in which there is ease or difficulty of contact is permitted between activities. The contact is provided by transport that overcomes the friction of distance necessary for contact to be made.

At the urban centre transport costs/friction of distance is reduced. As such, the central area has a high value, whilst decreasing land values and rent rates coupled with the increasing costs of transport away from the city centre. Office activities are prepared to pay a high price for a central location because of their need for direct personal contact in transacting business. ✓

Gottmann (1970) holds a similar view by stating the need for interweaving of the quaternary activities. Accessibility, information flows, transactional performance and expert consultation are factors that influence the functional needs of interweaving. Each of these factors does however require direct personal contact. Gottmann (1975:222) therefore claimed that the office activity has to be centralised to allow for the required 'face-to-face' discussions of either information or transactions.

Gilbert (1977) emphasises the clustering of functional groups at central locations and notes that the financial and legal activities occupy prime central sites due to their ability to outbid other activities. It is acknowledged that information flows are an important locational factor, but it is by no means a constraint as to where offices locate. Major finance firms dominate the central location, thereby promoting the central location.

Kahn (1984:49-50) cites more than one criticism of the rent theory but states that it is useful because it emphasises the importance of accessibility relative to the nodes, which once established are self perpetuating if transport routes remain unchanged. Rents charged in the real world are an important factor in determining the use and intensity of use to which the land is put, and accessibility will play an important role in the value of rent.

3.8. International trends of office location

Office research in the US has been concerned with matters of suburbanisation of office activities and changes in the employment structure. In the United States (US) the response has been more according to the perceived distinctions, or more to the lack of them between office location and industrial location (Daniels & Holly 1983). Prior research relies on empirical rather than on a theoretical base, with a large amount of attention awarded to the description i.e. what actually happens rather than to the normative i.e. what should happen. Neo-classical theories are applied to industrial and residential locations, however it is difficult to analyse the location of offices within this context of an industrial location theory. Therefore the neo-classical economics theory can be utilised to illustrate the concepts of supply and demand.

Offices in the US have mobility and show a greater tendency to disperse to smaller and newer 'urban' centres than they do elsewhere. Suburbs in the US were greatly facilitated by mass public transport systems. European cities however, experienced tighter controls on outward expansion and higher densities and hence the impact of 'public transport' suburbia was less important. The suburban dream was very dear to the American heart for most Americans except for the poor and black minorities. The first suburbanites suffered in terms of access to services and jobs and it was not long before these activities became suburbanised. Suburbs in the US were led forward by the prosperous and high income earners. Manufacturing, local services and retail found their way in these suburbs. Melvin and Webber (1963) forecast a universal rise of the 'non-place urban realm', a sort of super suburban metropolis characterised by spread rather than by concentration and linked by vast networks of freeways. Webber claimed that this pattern gave consumers unlimited access to services and jobs. This forecast became a reality especially in the rapidly expanding cities in the west like Los Angeles. The form of suburbia began to conform to the spread model (Alexander, 1979).

According to Webber (1963) in the early 1960's offices were joining the long list of activities that were able to survive in a non- central location.

The response to the above literature body is the question- how does office activities fit into this model in relation to the topic and how did they respond to the increasing suburbanisation of American cities? This literature body is also important to understand the driving forces behind the decentralised office parks.

3.8.1. Distribution of Office Employment- (international trends)

Studies by Horwood and Boyce in 1950 (in Daniels, 1975) of 60 U.S cities revealed a direct and exponential relationship between office building space and urbanised area population. Daniels (1975:123) shows a similar though less strong relationship for the U.K cities. The significance of such a relationship is not entirely clear since by considering office buildings solely, much of the office employment is being ignored. The correlation between city size and proportion of the workforce in the office jobs, is far less apparent (Daniels, 1975:104-105).

Offices tend to cluster at different levels of an organisational hierarchy resulting in an uneven distribution of office activity at the national level (Armstrong, 1972). Offices are classified as headquarters and middle market or local markets, with each having a different locational preference. **Figure 5** illustrates the spatial organisation of offices.

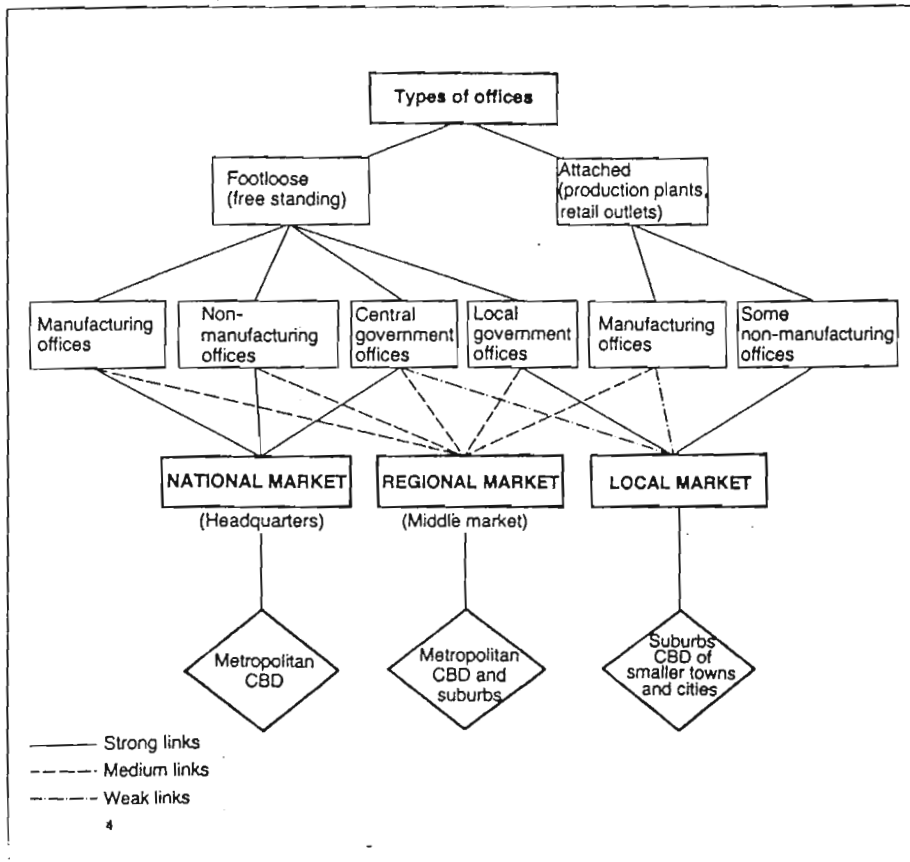


Figure 5: The spatial organisation office firms

Source: Daniels, 1975, pg 127

3.9. Decentralisation trends in South Africa

Studies conducted in Johannesburg show that the effects of supply and demand have greatly influenced office decentralisation into Midrand and Sandton. Previous research indicated both an increase in supply and demand of office parks (J. McCarthy, 1999, unpublished)

Research by S.Goga (1999) shows an increase in decentralisation of offices into suburbs such as Sandton and Midrand. Midrand was seen as the fastest growing municipality whilst Sandton on the other hand became its own municipality, resulting in large office developments in Sandton for rates generation. Research indicated that directors who worked in the Sandton office parks lived very close to work. Will this pattern be evident in the La Lucia Ridge Office Estate? Hence this literature enables an investigation into the convenience of the La Lucia Ridge Office Estate to the different levels of skills that may be found in the office park.

Literature in Durban shows that there has been an increasing trend for offices in the Durban's CBD to desert their traditional central locations in favour of suburbs. The following pull factors appear to be the underlying elements that draw people into the suburbs.

- ◆ Residential areas are becoming more attractive through being less congested, greener, cleaner, quieter, and safer.
- ◆ Residential areas are increasingly freed from through traffic, protected by traffic calming for local traffic
- ◆ Reduction in excessively high densities and additional local open space in areas of worst deficiency
- ◆ Developing policies revised to provide for compactness and maximum accessibility to jobs and leisure opportunities while also creating attractive work and living conditions.
- ◆ Improved frequency and reliability of public transport.

These are the pull factors that have been identified and these factors will be researched in the case study in order to determine how influential the pull factors are to the property developers,

when deciding on possible office locations, as well as the attractiveness of the pull factors to firms and its employees, when deciding on a location for their work environment. Are these pull factors responsible for firms choosing to locate into the La Lucia Ridge Office Estate? Little literature is available on the reasons or aspects that influences a firm's decision to locate into a distant suburb or the initiating factors for the movement.

Another pull factor is that of road use. Literature suggests that firms prefer the mobility that is available in suburbs as compared to the CBD. This leads to an understanding of what type of firms require this mobility and are they firms that use such locations as a base for contract work, are they independent contractors or are distant locations a cluster of firms that travel to clients more that they travel to the CBD or are they firms that do not require any travelling at all. This body of literature can only be disputed by assessing the functioning of the firms located in the La Lucia Ridge Office Estate. Therefore, this point will be discussed in part two of the research. The road use will link to the issue of public transport, in order to investigate the efficiency of the public transport in decentralised office locations.

3.10. The relocation decision involves two aspects ✓

- the reason for the location itself and ✓
- the choice of office premises, in this case the office park. Many attractions exist in suburbs in addition to the pull factors that were mentioned in section 3.9. Additional factors relate to the available space, as well as the ability to access land for development itself is greater. Was this the case in the La Lucia Ridge Office Estate?

The negative externalities decreased the attractiveness of the CBD and hence some activities move out. Experience in metropolitan areas worldwide shows that initial uses to leave the CBD, are residential and manufacturing activities. However more recently offices have been affected. Despite the movement of offices into suburbs, the attributes of suburbs (especially at distant locations) for office location needs to be matched against possible disadvantages. The

most common disadvantage is those of the lack of accessibility to suitable shopping facilities, inadequate public transport and the increased cost of travelling. The case study will relate the advantages and disadvantages in terms of the real experience.

Office decentralisation is said to exacerbate the social and economic ills of the central city areas, through the removal of both the city's tax base and of job opportunities. However in contrast to this position, the decentralised areas may see decentralised offices as bringing jobs to the suburbs and increasing the local economic tax base of the suburbs. ✓

A focus area of the research will be to investigate the adequacy of public transport, to the decentralised office park, considering that transport patterns in South Africa is greatly influenced by the past apartheid era. This means that workers usually travel into the CBD and have to thereafter travel out of the CBD into another suburb. Therefore, for some people an office in the CBD may be more convenient than one that is located in a distant suburb. The decentralised location will mean increased travel time and cost. This aspect of transport will be further expanded on once it has been supported by empirical research in part two of this study.

3.11. Office Location Factors

Office location patterns are dynamic. The pressures on existing accommodation and facilities as well as the distribution of other activities results in groups of office activities or individual offices to change their locational requirements. This means that the demand for and the supply of office space will continuously be in a state of flux, in an attempt to reach equilibrium.

Diverse factors influence the supply of office space. Some of these factors include the state of the country's economy, a demand for alternative office space, the vacancy rates for existing premises, rate conversion of buildings and the influence of property developers. The role of the developer is important because development in the cities require a specialist industry that can cope with a scale of investment that the office industry involves.

Developers respond to the demand of office requirements, but at the same time development can be speculative, more so when building costs are increasing speedily. In such instances, the supply of office space will outpace the demand due to the long-term development cost benefits exceeding the short-term vacancy losses.

According to Alexander (1979), the studies in London, Dublin, Sydney, Toronto and Wellington shows that access of communication factors emerge as an important locational influence for central area offices. The study further shows that the central area is able to draw from the entire region for its labour supply. In addition, it is suggested that many firms are reluctant to move away from the central ('accepted') location.

3.11.1. Influences on locational decisions

Office location occurs in two categories, viz.

1. when a firm locates for the first time
2. when an established firm relocates from an existing location that has become unsatisfactory.

Keane (1980:39) states that an existing office location consists of internal locational requirements and external characteristics of the location. An imbalance of these two factors will result in stress that will induce the relocation once the requirement threshold is reached.

Edwards (1983) states that a firm's decision to relocate can be stimulated by either internal pressures (**fig 6**) or by external pressures (**fig 7**). **Fig 8** illustrates the decision process model when a firm does decide to relocate, taking account of both the internal and external pressures on a firm.

Once there is an imbalance of the internal and external requirements of a firm in their existing location, one of two things can happen:

1. the firm can internalise the pressures in the existing location
2. the firm can relocate

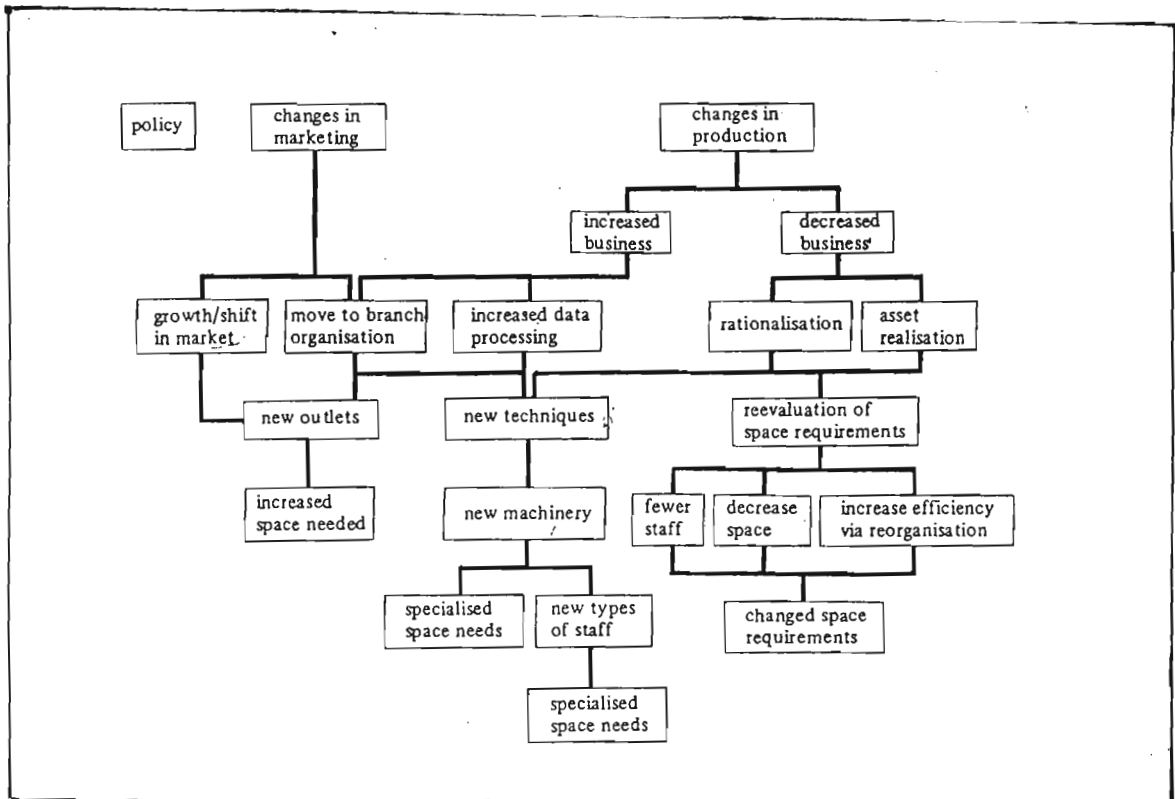


Figure 6: Internal pressures on the firms location

Source: Edwards, 1983

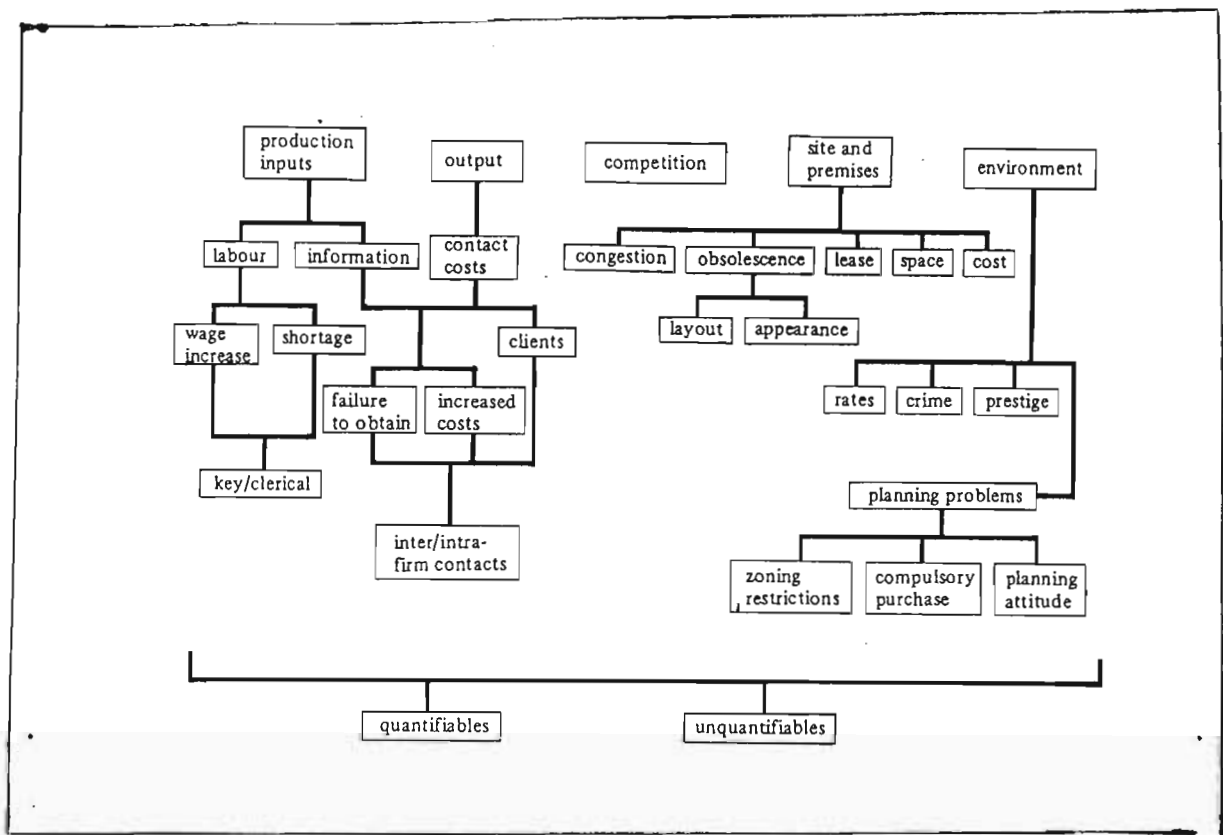


Figure 7: External pressures on the firms location

Source: Edwards, 1983

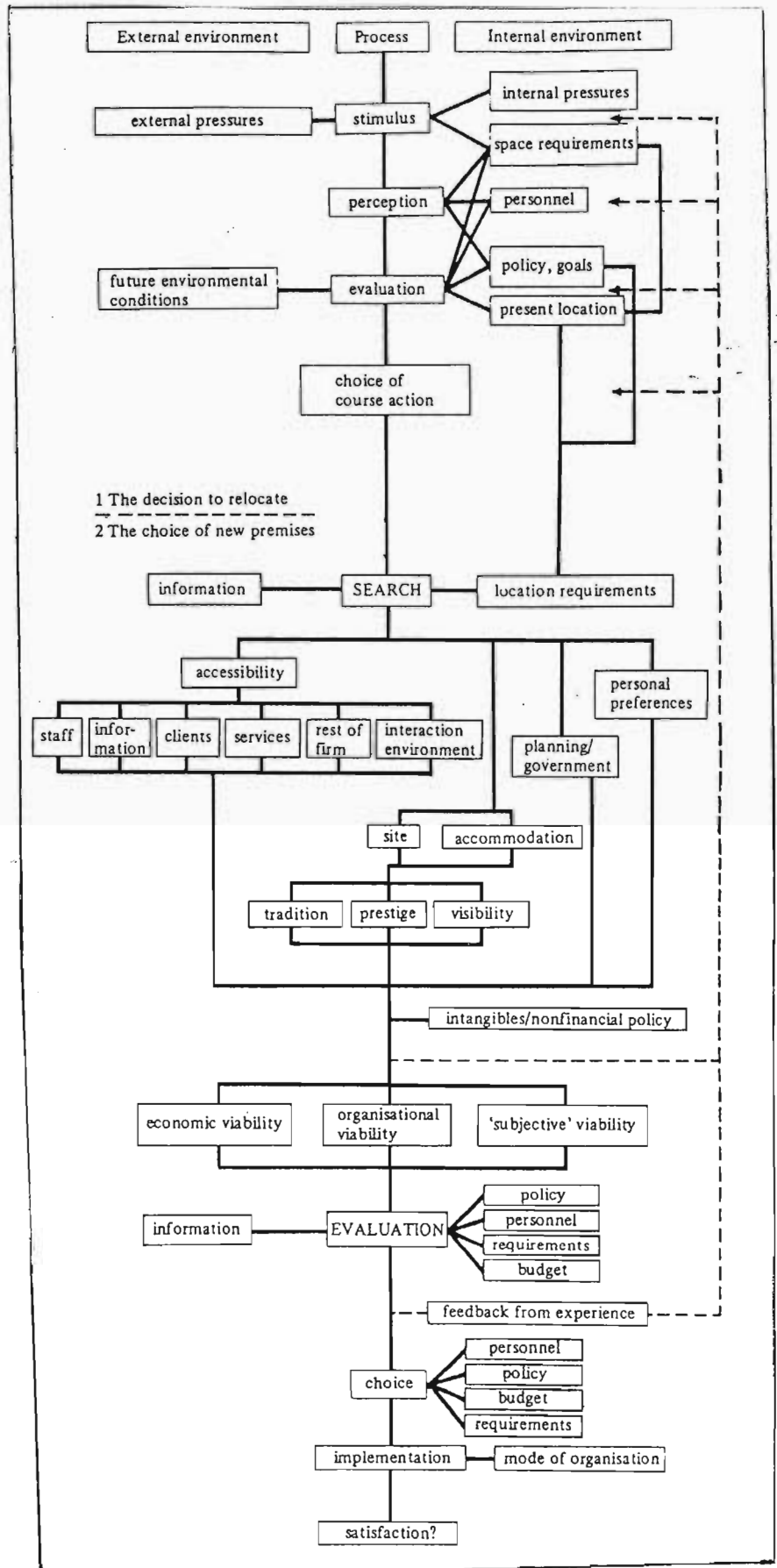


Figure 8: The decision process model

Source: Edwards, 1983

If a firm has decided to relocate then there is an evaluation of alternative premises. The decision process for finding a suitable location is made much easier when a firm has a good knowledge on its locational requirements. However most firms may only be aware of one or two of their requirements, which will greatly assist and simplify the decision making process.

Most firms choose a location that will enable the firm to succeed financially in terms of the firm expanding, increasing profits and turnover (Edwards,1983).

3.12. Local Government and Office Development

The importance of local government is a focus, in order to understand how developers begin to influence policy. This will enable an understanding of how the chosen location was supported by local government policy since the development of the La Lucia Ridge Office Estate will draw investment into Durban's north coast and contribute to the regions economy.

Developers react to government policy and political conditions (Fainstein, 1994). They do not merely react to an objective situation, but operate within a subjective environment. Developers therefore attempt to influence government policy. Developers are more inclined to attempt to influence policy direction and local actions at a local level, for local is a locus for their enterprise. Healey (1994) thus states that the state is drawn in as a mediator and facilitator through planning regulations and through subsidy direct development activity. Developers do occasionally attempt to influence the planning or zoning process. Local government policy and tax abatements play an important role in office development and have affected the amount of supply and increasingly the location of supply (Healey, 1994).

All of the research that has been discussed in this section, as well as the research conducted by Goga (1999), has occurred within a well-developed political structure, together with a system operating with particular rules, and in a context where neo-classical pragmatism is the norm at the national level and in many local areas. In addition, the local government had adopted some

kind of an urban entrepreneurial strategy and had disregarded, to a great extent, the goals of equity and social justice (Goga, 1999)

3.13. Office requirements

The location and internal organisation of a building are vital factors in determining the success of a company. If you locate your business in the far North of Durban when your clientele is predominantly from the south of Durban then this decision may hinder rather than help your business. Equally when you place your office staff in closed office layouts when their work demands group decision-making or creativity, the decision should stunt productivity. Offices can, and should, mirror an organisation's corporate culture, both in terms of the signal they give to the public- affluence and efficiency for example are suggested by impressive reception areas- and also the message they give about the structure of the group. For example does the structure of the building suggest a hierarchical organisation or does it hint a more horizontal, equal style of management, in which the staff are encouraged to participate in decisions? These are considerations that demand response from the company when considering its location. It is no longer acceptable for a company to refer to its building merely as a container for its activities. A company's building must be seen as an asset rather than an overhead. A first impression can only be made once therefore it must be the right one. The image of the company does not portray a message to the public but to its employees as well. In order for a company to attract and retain staff it is important that the staff are happy with their working environment- at present times the staff have a much higher expectation about their levels of comfort and personal control than before. The influence of the above mentioned literature on the location of offices is an important area of investigation for the case study. A key question for research would hence be *“did the image and choice of location improve the company's output and did it attract and retain staff?”*

The above mentioned body of literature therefore leads to nine key organisational issues of a company (these issues will be researched in relation to the case study in part two of the research).

- Attract and retain work staff: How important is it for the organization's success to ensure that highly qualified staff are satisfied enough, not only to join the organization but to stay as well.
- Relocation of staff: how often are people relocated physically from one workplace location to another inside the office?
- Communication of hierarchy, status and power: How important is it for people to recognise differences in rank, status and power within the organisation.
- Maximising informal interaction: How important are informal and spontaneous interaction and face-to-face communication among staff?
- Image to outside: How important is the image of the organisation that's presented to the visitors from the outside?
- Security to the outside: How important is protection of information and other valuables from outsiders?
- Security to inside: How important is the protection of information from insiders?
- Human factors in the ambient environment: How important to the organisation is the quality of lightning, air conditioning, air quality, temperature, acoustics, etc?
- The change of total staff size: Are the total number of people that are employed in the organisation stable or changing?

(Source: F.Duffy, The responsive office: people and change:1990)

The change in office requirements has led to the change in the space ergonomics in offices. Ergonomics is the adaptation of the working environment for people's needs. As far as the office is concerned, this means ensuring physical and psychological comfort, by imposing standards of lighting, acoustics, temperature, colour selection and seating. This literature will enable the researcher to establish whether the buildings in the La Lucia Ridge Office Estate was designed to suit the needs of the individual firms.

Chapter 4- Literature on the office market in the country and in Durban

4.1. The office market in KwaZulu Natal

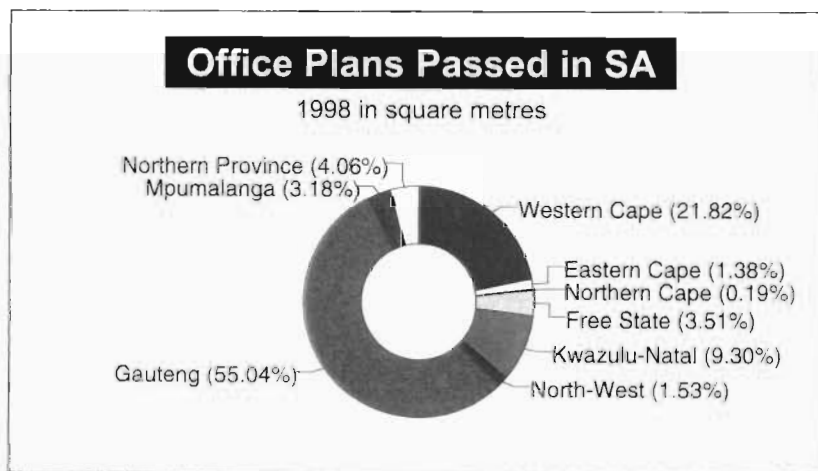
This section will discuss the property market in KwaZulu –Natal (KZN). Statistics from different published and unpublished sources will be revealed, in order to establish the elements of supply and demand for office space in the region. These statistics will place the La Lucia Ridge Office Estate development (in terms of office space provision) in the context of the country as well as the region. These statistics will enable the research to assess if the provision of office space by developers is a response to the demand for office space or if the La Lucia Ridge Office Estate was a speculative development. It will begin with the concept of decentralisation and the technological influences on office location and will thereafter move forward to discuss the dynamics of the property market and office market in Durban in order to place the La Lucia Ridge Office Estate in context.

This body of literature links with the theory of supply and demand. The evidence that is drawn from this literature will indicate the weak point of the neo-classical economic theory, which is: *the market is not always in perfect harmony, there are periods of boom and decline in the property market.* Demand from economic growth does not drive the development process of office park but rather the economic condition of the country as a whole determines where the supply of investment areas will be. Hence the location of the study area will be evaluated in terms of its placement in the broader context of Durban to establish why that particular site was selected as the investment area.

4.2. Percentage of offices built in South Africa during 1998

The total KZN market saw some 76,180m² of office space being completed in 1998. Of this some 42,535m² was located in Durban. The second largest was Umhlanga, which saw 18,069m² of new office buildings completed during the year. In terms of office plans passed, KZN ranked in third place nationally, but with a fairly low 9.3% of total office plans passed in

South Africa (S.A) (JHI, 1999). **Graph 1** represents the amount of office space that was built in the country. Gauteng and the Western Cape contain the greatest concentration of office space in the country. KwaZulu Natal ranks third in the country in terms of the amount of office space it accommodates. According to K. Davies (*per comm.* 1999), Durban has only recently begun to provide decentralised office parks when compared to Johannesburg. The reason being that there wasn't a great demand for decentralised office space, and Durban's CBD has not declined as rapidly as that of Johannesburg, whereby tenants are forced to look for alternative office locations. "Durban's CBD is in much better condition than other CBD's" (*ibid.*)



Source: Statistics SA

Graph 1: Office plans that were passed in the S.A

4.3. Durban's Office Market

Arguably Durban's CBD office market is confined by a lack of top grade space. In addition, the A- grade¹ office market seems to be shifting to the north eastern side of the city, away from away from what is being seen as the lower- income retail market in the west. According to the view in the market place, Field Street is becoming the western boundary of the city's A-grade office node. Westwards from Grey Street, is being seen as an active, high volume but low-price, retail node, with a low demand for offices (JHI, 1999)

Within the context of the East/West split of the CBD, its fair to say that the premier office space is limited to three main buildings, namely the Old Mutual Building on Smith Street, The Marine Building on Victoria Embankment and 320 West Building on West Street. The office space in the 'eastern' side of town can cost up to R46/m². The Embassy is also A-grade in spite of it being located on the periphery of the CBD's prime office node (*ibid.*).

According to the Rode report for 1998 first quarter, the demand for office space in the Durban metro was still healthy. Take up has been positive for both CBD and for the decentralised nodes.

A noteworthy feature about Durban's *decentralised office market* is that there is a great deal of land already planned for development, although confined to three major projects. The question that arises is, whether these new offices parks have not "psychologically saturated the local office sector. There seems to be the view that between the new office developments, there is sufficient space for the office developments to cater for the several years worth of demand (*ibid.*).

¹ Prime space: generally not older than 15 years, prime location, high quality finish, on-site parking (unless special circumstances pertain), air-conditioning. The market rental is near the top of the range (Moreland Developments, 1999)

of, not only total 'A' and 'B' office space and has an important margin to make up in both areas, but especially in terms of decentralised space. A comparison of the May 1993 SAPOA figures with the May 1998 figures that were made by Davies, Bristow & Associates indicates that the rentable office space increased by 171 782m² during the five year period and that almost 60% of this was in decentralised locations. In addition, 43% of this decentralised space was taken up by the Umhlanga/ La Lucia/ Mount Edgecomb subregion alone. **Map 1** illustrates these subregions in relation the Durban Metropolitan Area. New developments as at May 1998, according to SAPOA figures, it is noted that almost 88% of these developments are in decentralised locations and 63% of these are found in the aforementioned subregions. This clearly indicates an increasing demand for decentralised office space, particularly in the Umhlanga/La Lucia and Mount Edgecombe subregion as well as 'confirming the lack of available, suitable office space in the CBD' (*ibid.*)

Table 3: Decentralised office space in the country

City and Environs	Total office area- ('A' and 'B' Grade)m ²	Decentralised office area- m ²	Percentage decentralised
Johannesburg	5 856 659	4 000 109	68.30
Pretoria	1 643 700	996 200	60.94
Cape Town	1 580 000	711 000	45.00
Durban	997 570	244 420	24.5

Source: Davies, Bristow & Associates (1998)

The most recent data indicates that the CBD rentals are slowing whilst the decentralised rentals are on the rise. However the rental differential between the CBD and the Nodes are not as marked as in the case of Johannesburg (JHI, 1999). The Financial Week (9/10/98) showed that the market value of the Carton Centre in the Johannesburg CBD has decreased due to the lack of demand for inner city office space.

The La Lucia Ridge Office Estate has for several years now been tipped to be the “Sandton of Durban”. It is situated in upmarket Umhlanga with good access from the N2 and the M4 (**Map 3**), with Umhlanga Rocks Drive providing the main arterial route through the development. The node has attracted several banking and financial services groups, including Forbes Financial Services Group, BOE Private Bank and Deloitte & Touche. Gross rentals at the estate are R50/m² to R55/m², including levy and parking. Brokers estimate that by the end of the year, rentals in the node will be R60/m² (*ibid.*).

According to the rezoning application for March 1999 there is a clear indication that there is a ‘huge demand for not only decentralised office space, that the La Lucia Ridge Office Estate offers, but more importantly for the type of office space it offers in terms of density and intensity, quality of the environment, visual aspects, accessibility, safety and security and parking convenience. The aspects on the type of office space that is offered by the La Lucia Ridge Office Estate will be discussed in detail **Chapter 5**.

Moreland’s³ figures show that of 100,000 bulk metres available, at the estate, some 87,000 have already been sold. A further phase of 50,000 bulk metres is soon to be made available to the south east of the existing node. Rates for land are between R900/bulk metre and R1350/bluk metre. Brokers mention that La Lucia Ridge Office Estate displays a lower bulk than in the other office nodes, with the trend being towards the bulk of about 30% to 50%. The issues on the low density of the La Lucia Ridge Office Estate and other aspects of it will be discussed in greater detail in chapter five.

³ Moreland (Pty) Ltd, are the developers for the La Lucia Ridge office Estate. Their interest and role in the development of the office park will be discussed in detail in the explanation that accompanies **Figure 9**.

4.4. Conclusion

The literature on office requirements is important when analysing for which firms the La Lucia Ridge Office Estate is most suitable. The specific internal organisations could be the reason that some firms are found in the office park. The field research will affirm or refute this assumption.

This chapter of the research has briefly discussed the relevant theories, concepts and bodies of literature that can be used to understand office decentralisation. This section has shown that clustering of firms is only common in certain sectors of office i.e. financial and legal sectors. The clustering is due to the need for face-to-face contact.

The main findings were that firms had to be in a central location to draw on the region's work force. The literature on Durban's office market clearly indicated a need for additional decentralised office space in Durban.

Traditional neo-classic concepts are not totally useful in office location studies. Decentralisation trends vary between countries and regions. The cities contain push and pull factors that facilitate the suburbanisation of office.

The aim of this chapter is intended to give the reader a background on the office trends in relation to the decentralisation that is occurring in KZN. This chapter also alludes to the case study i.e. The La Lucia Ridge Office Estate so that the dynamics of the study area/project are grasped during the initial part of the research. This chapter has shown the demand for office space and office vacancy in the context of Durban. This chapter leads to the case study of this research.

CASE STUDY

The La Lucia Ridge Office Estate

Development occurs at *“the right time in the right place at the right price”*

(Lichfield and Darin-Drabkin, 1980)

“Modern offices are the result of a great deal of time, effort and energy expended by professional advisors and their builders. Much thought has been given to their design, to produce efficient and attractive working conditions.....sometimes it seems forgotten that office buildings are put up solely to house those who are never involved in the process of design”

(Paula Marber, 1985)

Chapter 5-The Context of the Study Area

5.1. Introduction

In order to comprehend the impacts of the distant decentralised Office Parks it is necessary to recognize the decentralised location i.e. Umhlanga in relation the Durban Functional Region (DFR). This chapter will place the Umhlanga area in perspective of the DFR and it will then place the Office Park in the context of the Umhlanga and surrounding areas. The development process will also be highlighted in this chapter together with the interests of each stakeholder group that is relevant to approve or disprove the hypothesis, i.e. the La Lucia Ridge Office Estate does not meet the expectations of all its stakeholders.

This chapter will discuss the Umhlanga area and the La Lucia Ridge Office Estate in the context of the DFR. It will then go on to discuss the development process to establish an understanding on how developments like the La Lucia Ridge Office Estate take place. The development process will be discussed by explaining the interest of each stakeholder. The stakeholders interest is important, because when the success of the office park is evaluated, according to each of the stakeholders expectations, conclusions will be drawn in **chapter 7**, that will either approve or refute the hypothesis.

5.2. Umhlanga in the Context of the DFR

The attached locality map (**Map1**) shows Umhlanga's location in relation to the Durban Metropolitan Area, the DFR and other surrounding small towns. It is important at this point to understand the objective of the case study i.e. the La Lucia Ridge Office Estate. The research area lies approximately twenty kilometers to the North of Durban's CBD (**Map 2**). The study area consists of 107 000 square meters of office space embodied in six office parks. The relationship of the La Lucia Ridge Office Estate to the surrounding areas would be to ultimately create a small CBD (EIA Report, 1998).

The last five years has seen a substantial expansion of suburban development in the greater DFR. Of particular importance is the process of urbanisation which has undoubtedly experienced its greatest impact in the Umhlanga subregion, (can be identified in **Map 1**-which shows the Umhlanga subregion in relation to the DMA), to the extent that, what was five years ago described as an emerging node, must now be seen as the footprint for a growing “edge city” (La Lucia rezoning application, 1999). **Map 4** illustrates the mixed land uses that will form the edge city, which will make the office park part of an important node in the DFR.

The re-allocation of the residual agricultural land for higher order urban uses has transformed the rural nature of the area into a patchwork of development and is continuous from Durban North in the south, to Newlands east, Phoenix and Mount Edgecomb in the west, and Umdloti in the north (*ibid.*). **Map 1** shows the aforementioned areas in relation to the location of Umhlanga and the DFR.

A diverse range of development activities has been, and is being, implemented on the majority of available, surrounding and as the region has matured and grown, the site’s strategic location and inherent qualities have become increasingly significant now, critical to the overall functioning and ‘feel’ of the region.

The development boom that Umhlanga area has experienced can be attributed to factors such as:

- All-round attractive location
- Quality and variety of new developments
- Deteriorating conditions in other parts of the Durban metropolitan area
- Developer and investor confidence in the area north of the Umgeni
- Extensive marketing in the greater Umhlanga area

The Umhlanga subregion has the appropriate, diverse and comprehensive development framework in place, and coupled with its unique attributes and natural dynamics, has the potential to evolve into an ‘edge city’ (**Map 4**- shows the Umhlanga area in general and the

office park together with the proposed and existing developments that makes it a strong node or 'edge city' of significant proportions which add to and enhance the structure and capacity of the DFR. The office park site is surrounded by various developments, such as, an upmarket school (Crawford College), an exclusive residential development (Executive Village), and developing new offices (the Glades) along Crawford College. See **Map 4**. The La Lucia Ridge Office Estate, in conjunction with the surrounding developments 'consolidates an emerging major economic node' and contributes to an aesthetically appealing subregional landscape (*ibid.*) According to T.C Chetty (*per comm.* 1999) a town planner, the office park cannot be viewed in isolation, but should instead be seen as part of the node that is being created in Umhlanga.

5.3. The development process

Figure 9 illustrates the process that was followed in order to build the La Lucia Ridge Office Estate. With reference to **Figure 9** the development process will be discussed. This process is relevant because it begins to spell out each stakeholder's interest in the development, and their objectives. It is important at this point to acknowledge that there is no primary investor in the La Lucia Ridge Office Estate like there has been for office parks in Johannesburg during the 1980's. Therefore the firms that bought sites from the developers to build the office buildings were referred to as the 'investors'

5.3.1. The interest of the stakeholders in the development process

Stage 1: In this stage of the development process the landowner, in this case being The Tongaat Hulett Group Ltd., decides when the market conditions are right to sell their land (whose previous use was agricultural, i.e. growing sugar cane) so that the yield received will gain a higher profit than the current land use.

Stage 2: The property division of The Tongaat Hulett Group Ltd. i.e. Moreland (Pty) Ltd. 'buys' the land. The developer analyses the market and sees whether there is a demand for office space at a decentralised 'prime' location. Morley (1985, cited in Paula Marber et al 1985) states that property development involves the taking of risks, which can be substantial, where that development is of a speculative nature. Not only will costs almost certainly alter during the development period, but rental levels, investment yields and the time that it will take to let (or sell) are difficult to anticipate several years into the future. It is pointless to design an office park when there isn't enough firms that are willing to locate into the office park, resulting in a development that is not viable. A rezoning application is made to the local authority with the intentions of the future land uses and proposed projects. The Local Government, in this case The North Local Council (NLC) is also involved in the development process. The local authority considers the feasibility of the proposed development and negotiates with both the landowners and the developers until an agreement is reached.

Once there is a demand for office space, and the local authority has approved the rezoning application, the developer then makes this land developable by installing bulk services. At this point there is a tender advertised for an appropriate design for a '*premier*' office park development. This leads to stage 3.

Stage 3: Interested urban designers and architects respond to the tender that was advertised. A full report is submitted to substantiate why the people responding to the tender selected their particular designs and what was their vision for the chosen office park design. An appropriate 'winning' design for the office park development is selected. A development manual is produced to guide the construction of the Office Park. Marketing agencies become involved in this stage by promoting the '*premier*' development to potential investors.

Stage 4: The land by this stage has been demarcated into plots for sale to possible investors. Blue-chip firms and other investors buy the land through the Land Owners Lot Association. The Landowners Lot Association means that the developer (Moreland Property Division Pty. Ltd.) has not bequeathed total control of the land. Therefore the investors have to build office

buildings according to the regulations that are stipulated in the development manual for the office park development. This development manual will ensure that once all the investors have completed the construction of their office buildings there will be a coherent architecture so that the development will be the premier office park that the developers envisaged it to be. The designers (GAPP Architects & Urban Designers) are still actively involved in the project to ensure that all the buildings are built within the realms of the development manual.

Stage 5: Once the buildings are ready for occupation, they are leased to firms that are willing to rent the office space offered. At times a firm may occupy more than one building especially if that firm relocated to centralise its organisation, for example, The PQ Africa Holding Company, which consist of a number of other subsidiary firms (refer to table 1 in chapter two). Sometimes the firm itself may be the investor and once the building has been completed that firm will occupy the office building (for example Deloitte and Touche building, and the Alexander Forbes building.) It is also not unusual for a firm to invest in building an office building and then proceed to occupy a portion of the building, and lease the unoccupied office space to other firms.

At times the office space in a building may be more than a firm requires so one firm may sublet part of its office space to another. For example Bradfin CC and HOM Accounting, both occupy one large office space which has been divided for the use of the two firms. Such a division makes the office space financially viable especially if a firm does not require a large office space.

The La Lucia Ridge Office Estate Development Process

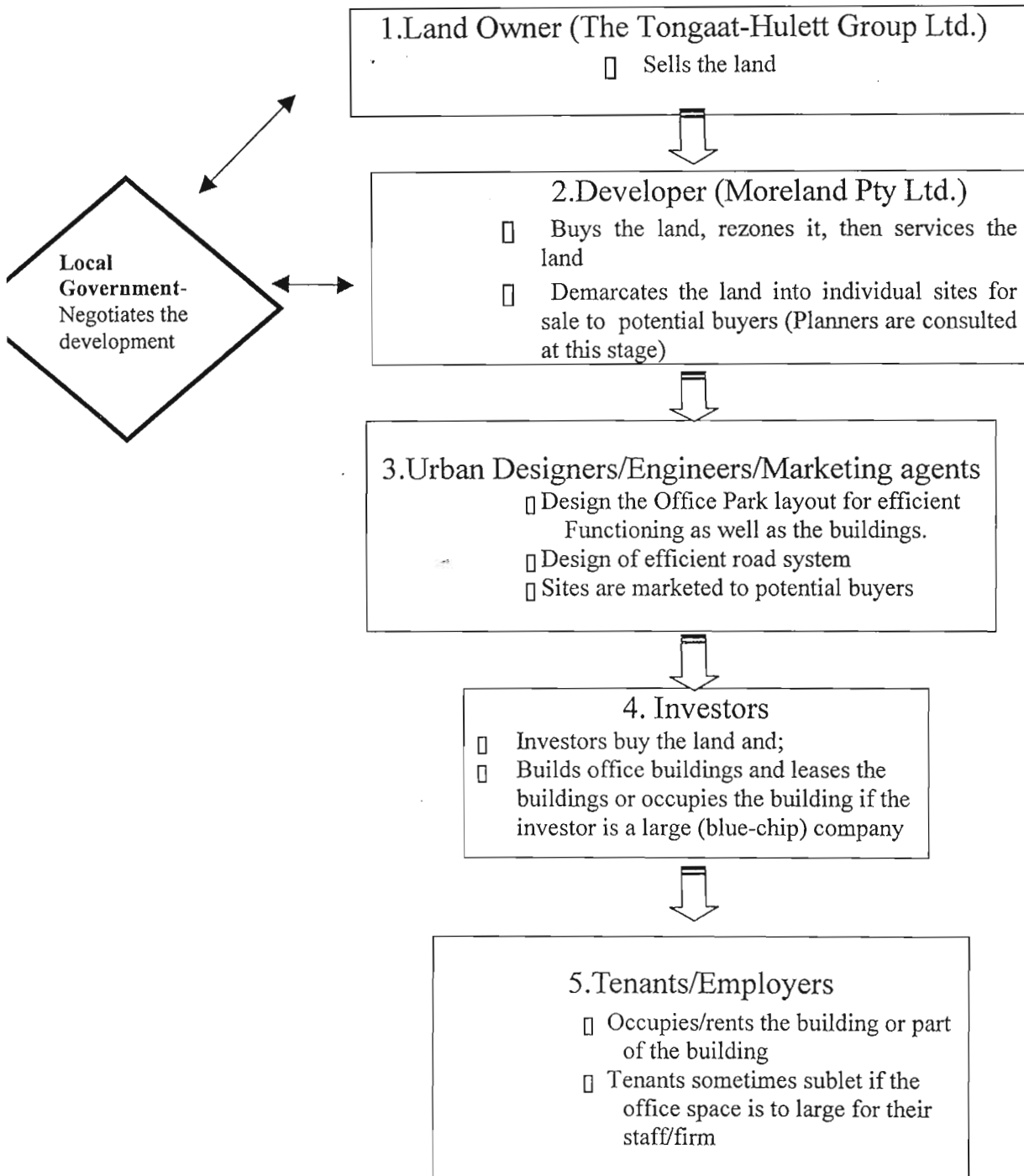


Figure 9: Schematic representation of the La Lucia Ridge Office Estate development process

5.4. Corporate (Company) Law

It is important to understand company law so that the development process in **Figure 9** can be grasped. Understanding the development process will enable one to learn why the land was sold to a developer, then an appropriate design had to be followed by investors who constructed office buildings in the Office Park.

Principles of corporate law will moreover explain the relationship between a landowner and the developer. This relationship is important because it will spell out the relationship that exists between developers and firms that locate in the La Lucia Ridge Office Estate.

Aspects of company law will further more indicate where the public in general will fit into the development process. A convenient starting point would, perhaps, be to describe the legal nature of a company, and types of companies, which exist in South African law.

Companies are separate legal entities (legal persona) with identities distinct from their owners (shareholders). Put differently, a company is (for legal purposes) a juristic person capable of acquiring rights and having obligations of its own. The shareholders of the company are the owners of the company, each owing a proportionate *share* of the company. However the shareholders do not own the assets of the company. Refer to **Appendix 3** for case study material that supports the nature of companies in South African law. The importance of this principle (of separate legal identity) will become more evident when tax implications and limitation of risk is discussed. For now, we turn to look at the types of companies that are currently recognised in South Africa.

Of the various types, only two types of companies are of relevance here. The first is a *public company*. These are usually larger companies conducting large-scale enterprises. Such companies may or may not be listed on the Johannesburg Stock Exchange (JSE). All public companies must have no restriction regarding their shareholding. Put differently, free trade of

their shares must be permitted. These companies are identified by the letters “Ltd.” (Limited) after their name.

Private companies, on the other hand, are usually smaller. Such companies may not be listed on the JSE and must have restrictions on the trading of their shares (effectively controlling ownership of such companies). These companies are identified by the letters “(Pty) Ltd.” (Proprietary Limited) after their name.

All companies have *limited liability* (hence the use of the abbreviation “Ltd.”). What this means is that the shareholders/owners of a company are not personally liable for the debts incurred by the company. This ties in neatly with the fact that a company is a separate legal persona – it is responsible for its own debts. This is crucial factor when using a company as a “business vehicle”. An investor can rest safe in the knowledge that he is at no greater risk that his actual investment (i.e. his other personal assets cannot be touched).

A brief distinction between holding and subsidiary companies also needs to be drawn. Since companies are legal persons, they may own (hold) shares in other companies. Where one company owns sufficient shares in another company, so as to be able to controls it, the former is known as the holding company, and the latter is known as the subsidiary company.

All companies pay income tax at a standard rate of 30% (at present). Capital gains tax (i.e. tax payable on the proceeds of the sale of a capital asset e.g. land) is not payable in terms of South African law. However, deliberate efforts made to improve a capital asset with a desire to make a profit from the later sale of such asset will be taxed (as income). This is because the “efforts made” in improving the asset are seen as an *income generating exercise*.

With this background, the research can start to examine the motives behind the processes illustrated in **Figure 9**. Firstly, the Tongaat-Hulett Group (a JSE listed, public company) owned much of the land on which the La Lucia Ridge Office Estate now stands. By selling

this land to its subsidiary (Moreland), instead of developing it itself, Tongaat-Hulett has accomplished several desirable goals:

1. No capital gains tax was paid (the land was sold undeveloped). Tongaat-Hulett, being a separate legal entity from Moreland, could not be taxed for the improvements made by Moreland;
2. Tongaat-Hulett retained ultimate control of the land and its development (through its subsidiary, Moreland);
3. Tongaat-Hulett faced no further risk if the development went wrong (Moreland would bear all the risk – at least until it was spread further).

Moreland acts as developer of the newly acquired land, bearing the bulk of the risk if the project failed. Much of this risk was spread to other large companies, who acquired individual plots and built their own buildings. These companies and other investors also benefited from the fact that all the development was being done through companies (limited risk of loss).

And finally the tenants. Although many large companies have buildings in the Office Park, there are numerous smaller tenants. They simply lease space from the relevant landlords and pay rental for the use of such space. Their risk is of course limited to the nature and contents of their lease agreements, rather than by any other principle of law.

5.5. Conclusion

The entire development process has ignored the employee group of stakeholders. It is therefore important to determine where the employees fit into this process and the impacts of such a decision to relocate on the employees. Furthermore the options available to the employees are when firms decide to relocate are important as well. Chapter 6 elaborates on the findings from the surveys as well as the employees' opinions on the decentralised location. Analysis of the employees responses will inform the research problem and the research question as to which firms these decentralised locations are best suited as well as for what level of skills and whether the location met the employees expectations.

Chapter 6- The uniqueness of the La Lucia ridge office estate

6.1. Introduction

This chapter will formally introduce the case study i.e. The La Lucia Ridge Office Estate. This chapter will discuss what the La Lucia Ridge Office Estate has to offer to the employers and the employees. This chapter will also discuss the uniqueness of the Office Park as a working environment.

The La Lucia Ridge Office Estate lies approximately twenty kilometres to the North of Durban. The study area consists of 100 000 square meters of office space embodied in six office parks. The relationship of the La Lucia Ridge Office Estate to the surrounding areas would be to ultimately create a small CBD (EIA Report, 1998). (The attached locality map (**Map2**) shows the study site and the study area in relation to Durban's CBD.) The Office Park is branded as one of Moreland's signature world class developments, and has been positioned as the premier office node in the country. **Map 3** shows the study area relation to the major road networks which makes the office park location accessible.

The La Lucia Ridge Office Estate consists of Grade A office space. Grade office space is, “prime space, generally not older than fifteen years old, prime location, high quality finish, on site parking (unless special circumstances pertain) and air conditioning. The market rental is near the top of the range” (Moreland Developments (Pty) Ltd. 1999).

The Office Park development is surrounded by a number of Moreland's celebrated projects, which provides a strong support base. Including the adjacent one billion rand Umhlanga New Town Centre, as well as the prestigious Mount Edgecombe Country Club Estate.

The Office Park has attracted major blue chip companies such as Deloitte and Touche, Q – Data Group, Anglo American Properties, Murray and Roberts, Mines Pension Funds and Grinaker Projects.

The buildings are all designed around the natural topography and are positioned to maximise the sea and inland views. The development manual for the Office Park ensures that the buildings optimise the views and at the same time don't obscure the views from other buildings.

Moreland's approach to security in the office park was to maintain the uncompromising aesthetic standards. The office park offers a splendid business and outdoor environment, making the development an ideal environment for businesses seeking a confident and prosperous future in a competitive and ever-changing market place.

6.2. The Views offered from the Office Park

The identity of the office park is one that is centred on views (**appendix 4**, photograph 1 (a and b), shows the views offered from the site) as opposed to that of architectural style, which is common in Johannesburg. The Rosebank office park in Johannesburg displays Cape Dutch architecture (Planning, July 1994). While the Woodmead Office Park shows a natural evolution of original Cape Dutch style architecture (Planning, July 1997). According to the designer E. Wood (*per comm.* 1999), the La Lucia Ridge Office Estate was designed with the intention for it to be the premier office park in the country with a difference from the office parks in Johannesburg that are based on architectural design. The buildings footprints that have been designated for each site, utilises simple but effective devices to preserve and optimise the panoramic views, and creating integrity between the buildings and the land.

According to the E. Wood (*per comm.* 1999), the simple integrity of Stockley Park, near Heathrow, outside London, which is acknowledged as a prime example of an office park internationally, greatly influenced the architectural style of the La Lucia Ridge Office Estate. The designers studied the various office parks in the United States and locally (in Johannesburg), and then based the architecture largely as a colour theme as opposed to a design style. The office parks in Johannesburg are characteristic of specific periods of

architecture. The La Lucia Ridge Office Estate was built using simple design principles. Investors/Companies could design their own buildings within the developments prescribed guidelines as stipulated in the development manual for the project.

“The colour white was predominantly used in a green sub-tropical coastal landscape, against the blue sky and sea, and the blue-greens hills on the west to achieve an architectural collaboration” (La Lucia Ridge Office Estate Brochure,1999).

Most of the roads and all the pavements are brick paved. The parking bays consists of grass-bricks, which is aesthetically more appealing than the usual black tarred parking surface. To further limit the landscape from being dominated by the parking bays, 75% of the parking has to be located in the basement of the buildings and 25% is permitted to be surface parking.

6.3. The security at the office park

Each mini office park includes individual road and security access featuring self-contained gatehouses (**Appendix 4**, photograph 2 shows the gatehouse with a security guard, that is found at the entrance of each mini office park). Each car that enters and leaves the park is viewed through well-positioned security cameras, by the security guard that mans the gatehouse.

According to E.Wood (*per comm.* 1999), an effective yet ‘non-visible’ security system was the objective for the office park. High walls that surround the office parks in Johannesburg were avoided. E. Wood (*per comm.* 1999) said that once the people were in the park they should feel safe and secure without having to be reminded about the crime that lurks in the cities. Each mini office park is enclosed by a steel perimeter fence system that blends unobtrusively into the natural vegetation.

In some of the mini office parks, the buildings that are close to Umhlanga Rocks Drive, have portions of the perimeter fencing replaced by water features which incorporate electronic security measures and lend an aesthetic appeal (**Appendix 4**, photograph 3 shows the security water feature). **Map 5** (the environment layout) illustrates the security water feature in blue.

A twenty-four hour manned gatehouse is common to all the mini office parks. These gates control vehicular and pedestrian movement. E.Wood (*per comm.* 1999) stated that the office park operates on the principle of soft entry and hard exit, whilst the closed circuit television camera monitors and records all activity within the gatehouse zone.

In addition to these security features the mini office parks are patrolled by qualified dog handlers and “*roving guards continuously monitor the outside and inside of the fence*” (La Lucia Ridge Office Estate Brochure, 1999).

The Office Park offers facilities for the connection of individual buildings to the parks security network. Through means of radio frequency devices, buildings can be monitored for power failure, panic alarm, fire alarms and burglar detection (La Lucia Ridge Office Estate Brochure, 1999).

6.4. The Office Park and the Natural Environment

Due to the ideal climatic and environmental conditions the office park is perfectly located to create a business park within a coastal forest. When the vegetation around the building grows, the office park will be surrounded by coastal forest. **Map 5** indicates the different species of vegetation that are found in the office park. The map indicates the coastal/indigenous forest that will surround the office park submerging the development in a forest-like landscape.

Due to the office park being located close to the sea with clear visibility of the Indian Ocean, the development was aimed to ensure that the total landscape responded aesthetically, functionally and environmentally as a whole. The landscape has been transformed from the

‘monoculture’ of sugar cane fields to a ‘multiculture’ use where man and the natural environment co-exist with mutual benefits.

6.5. The Square

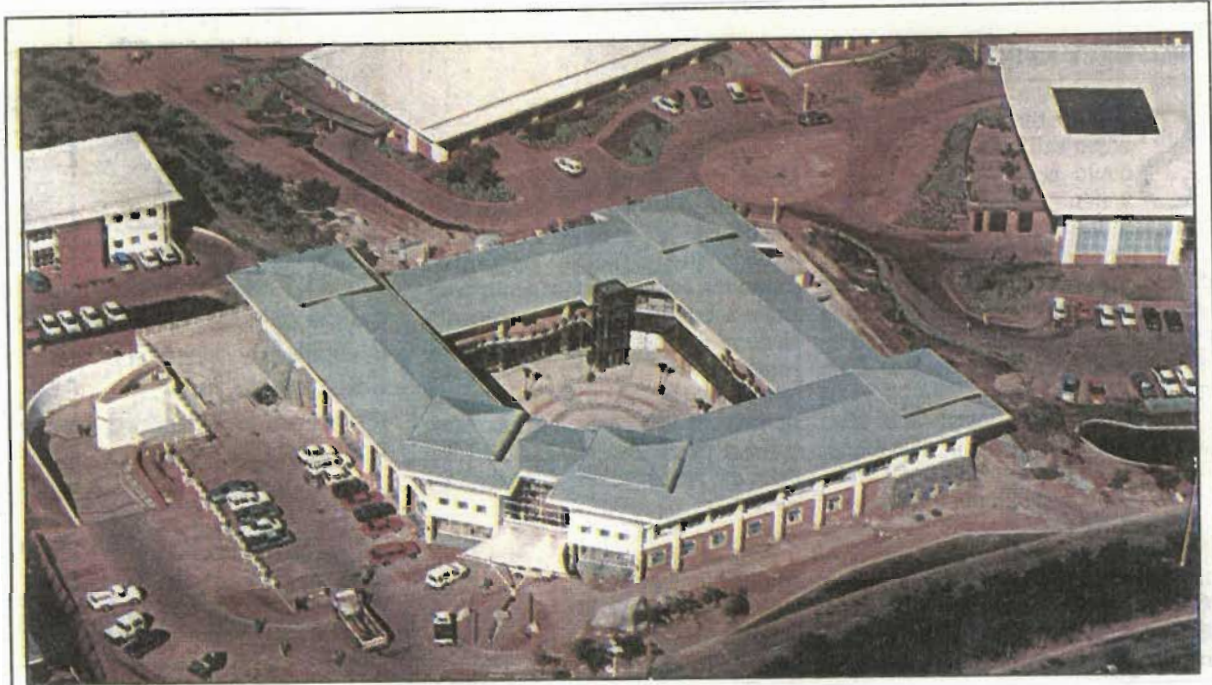
The Square, a commercial development at the La Lucia Ridge Office Estate, was officially opened in July (1999) and consists of 3 788 square metres of lettable area. **Photograph 4** shows the corporate design of the square, where all the activity focus on the inside and not much of the activity can be seen from the road (E.Wood, *per comm.* 1999). The facilities in the square are targeted towards the occupants of the office park as well as the nearby residential areas such as Somerset Park (Sunday Tribune, 27 June 1999).

The office park is situated in close proximity to amenities that exist in Umhlanga. The luxury La Lucia Mall offers various first class food outlets and departmental stores. The Square has been aimed to cater for the need of the tenants in the office park. The facilities provided in The Square are geared towards supporting the business needs of the Office Park. The Square features an upmarket restaurant and casual cafés and pubs, a travel agent, gym, stationary store, doctor, and printing outlet.

The Gateway shopping and entertainment centre as well as the other shopping and residential developments will not only play an important role in contributing positively to the economy of the region but will also offer vital support service to the Office Park development. **Map 4**, shows all the developments around the office park, which contributes to the creation of a dynamic node.

According to Mr. T.C. Chetty (*per comm.* 1999), The Square attempts to keep the office park ‘alive’ at night. This contributes to the safety feature of the office park by ensuring that there are always people in the vicinity of the office park. Keeping the area alive at night will prevent the area from becoming vulnerable to theft or other criminal activities. The presence of people

will also make employees feel safe when they work after hours (*ibid.*) **Chapter 7** will evaluate whether the developer's objective for The Square was successful.



Photograph 4: The Square

6.6. Conclusion

This chapter discussed the unique features that the La Lucia Ridge Office Estate offers to the workers and employers. The office park displays exceptional standards of aesthetics and security. The views that are offered by the office park is the only one of its kind to Durban. The tranquil surroundings are also visible through the windows of the office buildings. The atmosphere is relaxing to the occupants of the building. **Chapter seven and eight** will reveal the just how much the environment is appreciated, and the location as well.

Chapter 7: Analysis of the responses received from the surveys

7.1. Introduction

This chapter will analyse and discuss the results of the surveys that were undertaken. Two other 'mini' office parks namely, Sinembe and Milkwood had not been completed when the research was undertaken. Hence the analysis of the findings are based on the firms that were in the office parks in the first half of 1999. The mini office parks that were part of the research are Pentcarrow, Frosterly, Cranebrook and Torsvale. The names of these 'mini' office parks are names of Tongaat-Hulett sugar Estates. **Map 6** shows the geographic location of the mini office parks as well as the maximum number of floors that is permitted on each site. The methodology in chapter 2 details how the sample had been selected so that the results reflected are as close to reality as possible. This chapter will analyse all the results that were obtained from the questionnaires that were distributed to the employers and employees. The results are separated according to the responses received by the employers and the responses received by the employees. The separation of the analysis by employer and employee groups will be to assess the satisfaction of the office park to the different levels of skills. Where it is not necessary, the results will not be separated into the employer and employee category.

The findings in this chapter will be linked to the theory and literature that was discussed in chapter three. The theory will be used in conjunction with the findings to explain the locational requirements of the firms in the different sectors. This chapter will also inform the implications for planning once the findings have been explained together with the theoretical approaches. The chapter begins with a discussion on the firms prior location, followed by the discussion on increased travel cost to the firms (employers) and the employees. A discussion on the number of employees lost due to the relocation will follow. Thereafter there will be a discussion on the adequacy of parking provision in the office park, the efficiency of public transport, and traffic congestion. The employers and employees perception on the office park will then be analysed. The use of the internal and adjacent facilities by the employers and employees will be also analysed..





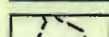
Layout Plan

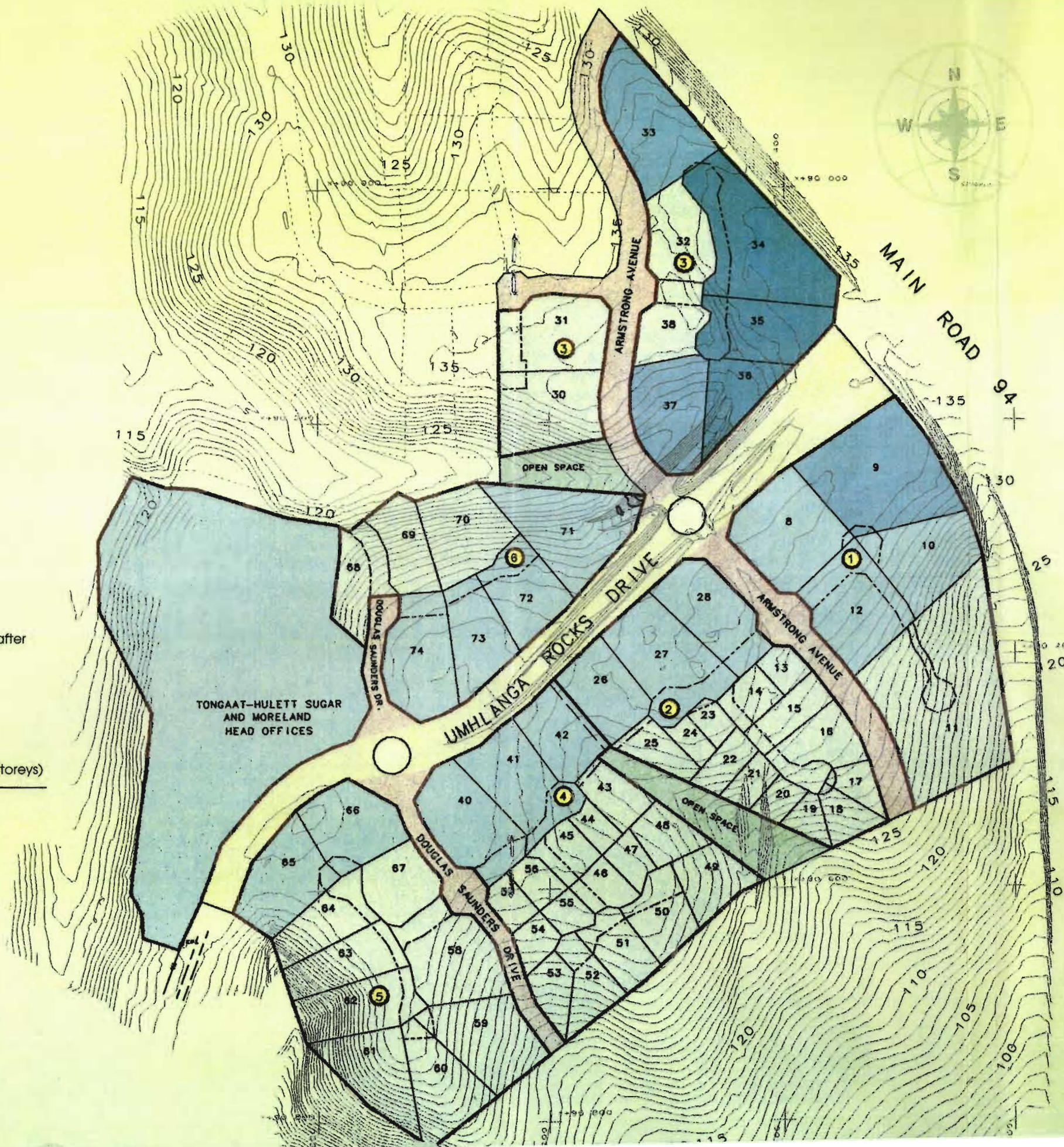
Park Names

- ① Pencarrow
- ② Frosterley
- ③ Torsvale
- ④ Cranbrooke
- ⑤ Milkwood
- ⑥ Sinembe

All office parks in the Estate are named after well known sugar estates in the area.

Use Zone	F.A.R.	Height (Storeys)
Use Zone 1	0.30	2
Use Zone 2	0.45	3
Use Zone 3	0.50	4
Use Zone 4	0.55	6

-  Use Zone 1
-  Use Zone 2
-  Use Zone 3
-  Use Zone 4
-  Servitude Roads



Use Zone	Site No.	Gross Area m ²	Nett Area m ²	F.A.R.	Developable Floor Area m ²	Height (Storeys)
2	8	6814	6741	0.45	3066	2
3	9	10171	10035	0.50	5085	3
2	10	5805	5136	0.45	2477	3
1	11	16531	16531	0.30	4959	2
2	12	6149	3930	0.45	2767	3
1	13	1106	1106	0.30	331	2
1	14	1663	1189	0.30	498	2
1	15	2224	1908	0.30	667	2
1	16	3770	2750	0.30	1131	2
1	17	1304	1229	0.30	391	2
1	18	1663	1587	0.30	498	2
1	19	1084	1084	0.30	325	2
1	20	1039	1039	0.30	311	2
1	21	1219	1219	0.30	365	2
1	22	1568	1568	0.30	470	2
1	23	952	952	0.30	285	2
1	24	938	938	0.30	281	2
1	25	1828	1828	0.30	548	2
2	26	4080	4080	0.45	1836	3
2	27	6759	4992	0.45	3041	3
2	28	5304	4497	0.45	2386	3
1	30	5823	5488	0.30	1746	2
1	31	5746	4665	0.30	1723	2
1	32	4012	4012	0.30	1203	2
3	33	7283	7246	0.50	3641	3
4	34	9441	7441	0.55	5192	4
4	35	5309	4133	0.55	2919	4
4	36	3410	3410	0.55	1875	4
3	37	5472	5472	0.50	2736	3
1	38	3369	2589	0.30	1010	2
2	40	5836	4946	0.45	2626	2
2	41	5692	4463	0.45	2561	2
2	42	3904	3904	0.45	1756	2
1	43	2152	2152	0.30	645	2
1	44	1035	1035	0.30	310	2
1	45	1929	1315	0.30	578	2
1	46	1614	1214	0.30	484	2
1	47	1209	1209	0.30	362	2
1	48	2122	2122	0.30	636	2
1	49	2965	2965	0.30	889	2
1	50	3153	2103	0.30	945	2
1	51	2667	2011	0.30	800	2
1	52	2586	1958	0.30	775	2
1	53	1817	1817	0.30	545	2
1	54	1312	1312	0.30	393	2
1	55	1108	1108	0.30	332	2
1	56	1320	1320	0.30	396	2
1	57	1284	1284	0.30	385	2
1	58	6093	5068	0.30	1827	2
1	59	5654	5438	0.30	1696	2
1	60	4597	4276	0.30	1379	2
1	61	4610	4610	0.30	1383	2
1	62	4556	3911	0.30	1366	2
1	63	3783	3327	0.30	1134	2
1	64	3585	2715	0.30	1075	2
2	65	5112	4863	0.45	2300	3
2	66	4898	4606	0.45	2204	3
1	67	3471	3471	0.30	1041	2
1	68	3775	2656	0.30	1132	2
1	69	3252	3252	0.30	975	2
1	70	4858	4858	0.30	1457	2
2	71	7286	7286	0.45	3278	3
2	72	4450	3400	0.45	2002	3
2	73	4157	3758	0.45	1870	3
2	74	5535	4751	0.45	2490	3

7.2. Relocation of firms into the La Lucia Ridge Office Estate

This section will discuss the relocation of firms into the office park from their previous locations as well as the firms that are located in the office park for the first time. It will further discuss if any of the firms experienced additional cost due to the issuing of travel allowances. Linked to travel cost will be discussion on additional travel cost (if any) that was experienced by the employees. Section 7.2 ends with an analysis of the number of employees that resigned because the location was inconvenient.

7.2.1. Firms that relocated and their previous location

Table 4 reveals the previous location for the firms from each sector. 12.5% of the finance/accounting sector relocated from a decentralised location i.e. the Berea/Musgrave area . 25% of this sector relocated from the Greyville area i.e. an area outside of the CBD.

One firm in the finance sector that relocated from the Berea/Musgrave location did give employees the option to remain in their previous location or move to the new location in the La Lucia Ridge Office Estate. In this instance employees could chose to work in a location that was most suitable to themselves. It must be acknowledged that the firm in the Finance/accounting sector that gave employees the option to relocate or remain in the old location was a blue chip firm. A major blue chip firm that has reached its desired threshold could afford (in financial terms) to allow their employees to remain in a convenient location since the firms previous branch remained in Berea/Musgrave area. The smaller firms had to decide on the location that would best suit the companies interest in order for the company to endure and did not have another location to give employees the choice that the blue-chip company could.

TABLE 4: PRIOR LOCATION OF FIRMS

Category	CBD	Musgrave / Berea	Glenwood	Greyville	Westville	Other	1 st location
Finance/Accounting	5 (62.5%)	1(12.5%)	--	2 (25%)	-	-	-
Computer/IT	1 (25%)	-	-	-	1(25%)	1(25%) Mobeni	1(25%) (branch)
Engineering	1 (33.3%)	-	2(33.3%)	-	-	-	1(33.3%)
Transport	1(50%)	-	1 (50%)	-	-	-	-
Other	-	1(50%)	-	-	-	-	1 (50%) (India)
Total	8 (42.1%)	2 (10.5%)	3 (15.8%)	2 (10.5%)	1 (5.3%)	1 (5.3%)	2 (15.8%)

In the computer/IT sector only 25% (1) relocated from the CBD. The table below reveals that an equal percent (25%) of firms in the computer sector did give employees a travel grant. 25% in this sector relocated from another location, viz. Mobeni and 25% are firms that form part of a branch firm and the Office park is that firm's first location. One firm (25%) relocated from Westville, an area that is a location for decentralised offices.

The engineering sector has 33.3% of firms relocated from the CBD, 33.3% relocated Glenwood and 33.3% that are firms that are in operation for the first time. The 33.3 % of firms in this sector that has relocated from Glenwood, has increased employees salaries (refer to the next table showing "Increased costs(if any) to firms) to accommodate the added travel cost.

In the transport sector 50% of firms relocated from the CBD and 50% from Glenwood. The 50 % that relocated from Glenwood were located in the CBD before the firm moved to Glenwood. The 50% of the transport sector that had given employees a salary increase were the same 50% of firms that were located in Glenwood. **Table 4** confirms, that the 50% of firms that are located in the office park did not provide

additional travel costs to employees. The specific employees that had been surveyed in this sector did not experience any additional travel costs (refer to table that shows how employees accommodated additional travel cost(if any)) as is reflected in the questionnaire results.

Firms that fall into the other category reveals that 50% relocated from the Berea/Musgrave area and 50 % are located in Durban for the first time. The 50% that located in Durban for the first time is the branch of a firm that is located in India.

The table above shows a tendency for firms to prefer locations away from the CBD. As soon as locations further away from the decentralised location (e.g. Berea, Westville etc) become available firms seem to prefer the new location on offer. According to the employees responses, it seems that the safe, congestion free 'professional' environment that the office park offers is one of the factors that influenced the firms decision to relocate.

7.2.2. Increase in travel costs for employers and employees

This section will explain the additional costs that were experienced by firms (employers) and the employees.

Table 5 indicates that 25% of employers in the finance/accounting sector said that the firm had issued travel grants since its relocation. This 25%(2) that issued the travel grants were previously located in the CBD. The table above shows an **X** in the finance/accounting sector in the column of firm's bus. The **X** indicates that some of the firms that issued travel allowances also provided a firm bus that picks up employees from the CBD.

The employees that board the firm bus live in the southern part of the Durban Metropolitan Area, viz. of Sea View, Chatsworth, and Shallcross (employees responses in the questionnaires reveal this finding). (**Map 1** shows the exact location of these

areas in relation to the site). The responses reveal that the majority of employees that board the firms bus, are employed as less skilled workers, namely as clerks, administration workers, and general office workers.

TABLE 5: INCREASE IN TRAVEL COSTS FOR FIRMS

Category of Firm	Travel Grant	Salary Increase	Firm Bus	No increased expense
Finance	2 (25%)	-	X	6 (75%)
Computer/IT	1 (25%)	-	-	3 (75%)
Engineering	-	1(33.3%)	-	2 (66.7%)
Transport	-	1 (50%)	-	1 (50%)
Other	-	-	-	2 (100%)
Total	3 (15.8%)	2 (10.5%)	-	14 (73.7%)
	19 (100%)			

7.2.2.1. Increase in travel cost for employees

Table 6 shows that a total of 33.3% of all employees experienced an increase of travel cost. Of this 33.3%, 3.9% received a travel grant and 13.7% received a salary increase. However 15.7% of the employees had to budget the increased cost out of their salary.

A large percentage of people, 66.7% experienced no increased cost at all. The responses in the questionnaire show that those who did not experience additional costs, are those that live close to the La Lucia Ridge Office Estate and those that have been employed for the first by the firms in the Office Park and have not worked for the firm in its previous location. Some of the employees did receive a travel grant, and some firms provided a firm bus to

fetch its employees from the CBD. Employees however said that the travel reimbursement did not cover the total increase of the cost that was experienced. But one has to bear in mind that the travel grant and the firm's bus will reduce the increase in travel cost that employees will have to include into their budget.

Table 6: Increase in travel cost (if any) to employees

Category of Firm	How is additional cost (if any) is made up			
	Travel Grant	Salary Increase	Own	No increased expense
Finance/ Accounting	2 (8.3%)	4 (16.6%)	3 (12.5%)	15 (62.5%)
Computer/ IT	0	2 (11.1%)	5 (27.7%)	11 (61.1%)
Engineering	-	1 (33.3%)	-	2 (66.6%)
Transport	-	0	-	2 (100%)
Other	-	0	-	4 (100%)
Total	3.9%	13.7%	15.7%	66.7%
	100%			

16.6% of employees in the finance/accounting sector received an increase in salary and 8.3% received a travel grant. 12.5% had accommodated their increase in travel cost personally. A large percentage (62.5%) experienced no additional costs. The finance/accounting sector consists of 16 firms (as indicated in chapter 5), all of which employ different levels of skills. This implies (as the fieldwork has revealed), that some finance/accounting firms have a very skilled work force, whilst others have a mixed level of skills within its work force. This difference has brought to light why some firms in the finance/accounting sector find it difficult to cope with the increase in travel costs. An example of this difference is most evident between Deloitte and Touche and Alexander Forbes. Deloitte and Touche firm consists of a greatly skilled workforce, whilst the latter firm has a fair mix of skills. The responses that

were received in the questionnaires show this difference. It is evident that most people who were unhappy about the location came from firms with a mixed level of skills, and respondents that did not possess a high level of skills within the finance sector, formed part of the percentage that were unhappy about the firms move.

The computer/IT sector shows that 27.7% of the employees accommodated the cost personally. This once again reflects that the higher levels of skills are able to afford additional cost. 11.1% of the employees in the computer sector received an increase in salary. An interview with an employer in this sector said that increases in salary were awarded if a person qualified for it.

The engineering sector 33.3% experience an increase in travel cost, this 33.3% received an increase in salary to accommodate this additional cost. 66.6% did not experience any increase in travel cost. Respondents in this sector were happy that the firm relocated/located into the Office Park because they felt that the new environment offers an enhanced professional atmosphere.

In the transport sector, the employers response shows that one of the firms increased salaries due to the relocation, from the CBD. However from the employees that were surveyed, none had experienced an increase in travel cost. Therefore no increase in travel cost was experienced amongst the employees in the transport sector.

7.2.3. Staff losses due to the relocation

This section will reveal the number of employees that resigned due to the location being inconvenient to them

Table 7 illustrates the responses from the firms in each sector whom had employees resign due to the new location of the firm.

25% (two firms) of the finance sector experienced a loss in employees due the firms decision to relocate. Similarly 25%(one firm) of the computer sector experienced a loss of employees due to the relocation of the firm.

The reasons that were received for employees resigning were, that the location was too far off for the workers to travel to and too costly. From the nineteen firms that were surveyed only three firms experienced a loss of employees. The two firms in the finance sector that experienced a loss of employees were firms that employed a mixed level of skills. It can be concluded that the additional travel costs incurred due to the firms decision to relocate could not be accommodated by workers with a lower level of skill. In addition to the increase in travel cost, the increase in travel time was another reason for employees resigning.

Employees in a particular firm revealed to the researcher that they were looking for alternative employment because the new location of their firm was time consuming and the added travel cost was more than they could afford. These employees also reveal that they traveled by cars that were a number of years old and the increased travel distance increased the wear on their cars. The cost of maintaining an old car was an added expense to these employees. The employees in question all resided to the south of Durban namely in the Bluff, Shallcross and Chatsworth. The firm in question was previously located in Mobeni, a location that was convenient to the employees

living in south Durban. A further point of observation is that the employees in this firm, form part of general office workers.

Firms that are considering relocating need to take account of the level of skills of their employees as well as their previous location. The above example reveals that firms relocating from the south of Durban to the North of Durban with the majority of the work force from the south of Durban need to take account of the implications of the relocation on the employees of the firm.

TABLE 7: EMPLOYEES LOST DUE TO THE RELOCATION

Firm Category	Number of firms in which people resigned	Number of firms in which people didn't resign	Total
Finance/Accounting	2 (25%)	6 (75%)	8 (100%)
Computer/ IT	1 (25%)	3 (73%)	4 (100%)
Engineering	0	3(100%)	3 (100%)
Transport	0	2(100%)	2 (100%)
Other	0	2(100%)	2 (100%)

7.3. Employers and Employees travel patterns to and from work

This section of the analysis will discuss the employers and the employees travel patterns to and from work. It will begin by the employers mode of transport to work, the distance that they travel and the time that they take to reach work. There will be diagrammatic representation of the employers travel pattern. The employees travel patterns will then be discussed. Firstly the employees mode of transport will be discussed, followed by the distance that they travel, and the time they take to reach work. There will be a diagrammatic

representation of the employees travel patterns. In addition this chapter will discuss the adequacy of parking in the office park, and the efficiency of the public transport. This section ends with an observation on the problem of traffic congestion in the vicinity of the office park.

7.3.1. Mode of transport used by employers

The responses from the survey indicate that the car is the dominant mode of transport amongst the employers. The dominant car usage amongst the employers could be attributed to the fact that a lot of them travel to meet clients or to conduct business meetings.

The responses received in the questionnaire has revealed that all of employers within each sector of the firms (i.e. responses in the finance/accounting, Computer/IT, Engineering, Transport, and the other sector) and all of the employers in all the sectors travel to meet clients. The client's spatial location is scattered throughout the DFR. Some clients are located in Pinetown, Durban's CBD, in Kloof and Hillcrest, some as far as Pietermaritzburg, Ballito and some employers even travel to various parts of the province to meet clients. Employers have also responded that they travel abroad to meet clients.

The dominant car ownership in this group could also be a function of the high-income group and the high status group that the employers belong to.

7.3.1.1. Distance that employers travel to work

This section will evaluate the distance that employers travel to work.

This section will allow the researcher to establish whether employers moved closer to their place of work. The results as reflected in Table 7 reveal that all of the employers lived at their place of residence before the firms moved into the office park, unlike the trends that were found in Johannesburg by Goga (1999), where the employers usually moved close to their place of work when their firms

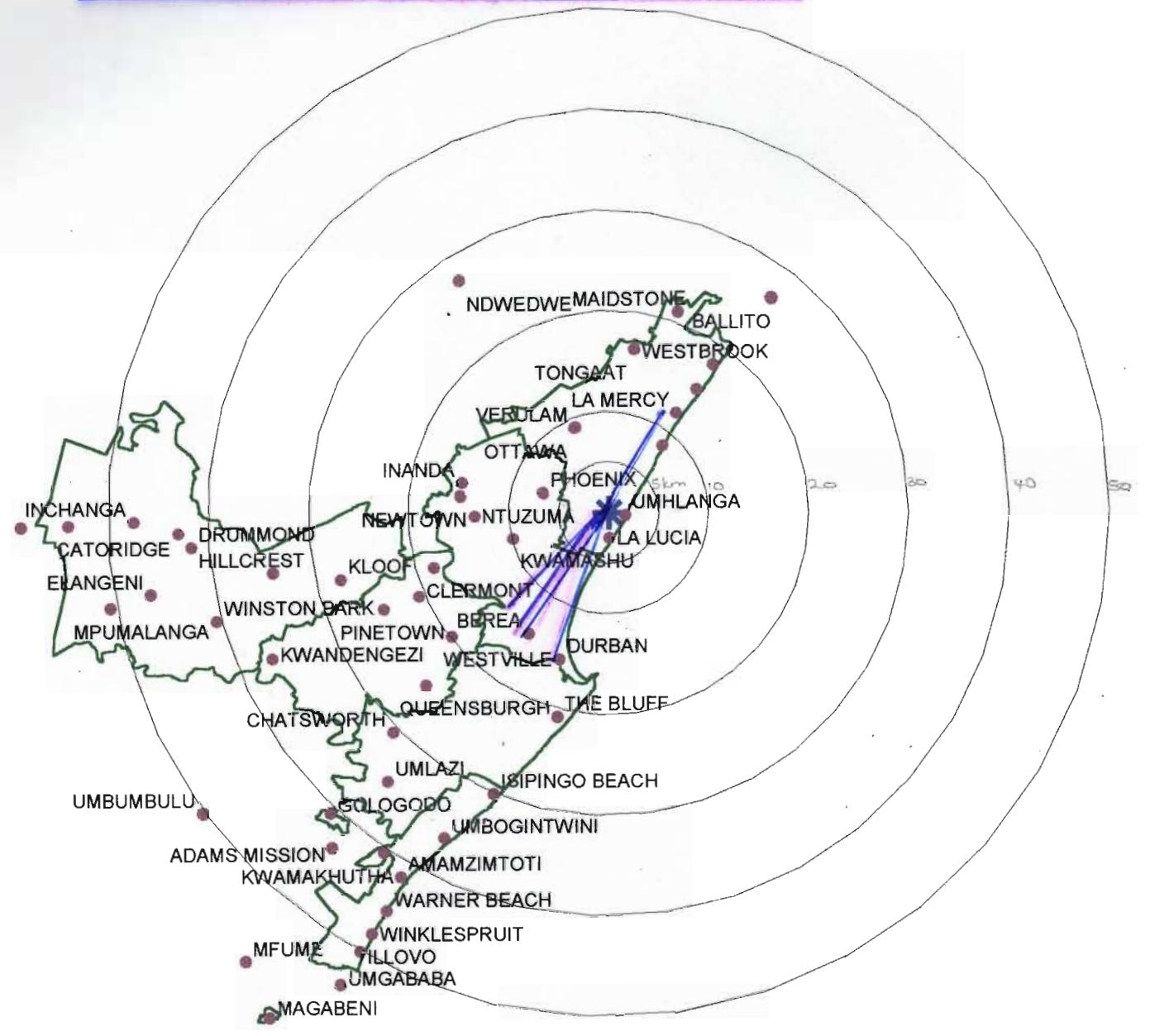
decentralised. Diagram 1 illustrates the areas from which the employers travel to the office park on a daily basis. The illustration reveals that most of the employers live within a thirty kilometre radius of the office park. Only two employers live between a thirty and forty kilometre radius of the office park. The employers travel distance to work is a reasonable travel distance for a daily basis.

TABLE 8: DISTANCE TRAVELLED BY EMPLOYERS TO WORK

Firm Category	Distance traveled in kilometres													
	0-5km		5-10km		10-20km		20-30km		30-40km		40-50km		Total surveyed	
	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	No.	%
Finance/Accounting	25	2	25	2	25	2	12.5	1	12.5	1	-	-	8	100.0
Computer/IT	50	2	-	-	50	2	-	-	-	-	-	-	4	100.0
Engineering	-	-	-	-	33.3	1	66.7	2	-	-	-	-	3	100.0
Transport	-	-	-	-	100	2	-	-	-	-	-	-	2	100.0
Other	50	1	-	-	-	-	-	-	50	1	-	-	2	100.0
TOTAL	26.3	5	10.5	2	36.8	7	15.9	3	10.5	2	0	0	19	100.0

Diagram 1(on the following page): Illustrates the travel network of the employers (from all sectors) in the DMA

EMPLOYERS TRAVEL NETWORK



7.3.1.2. Time that employers take to reach work

Table 9 reveals that the majority of the employers reach work within half an hour. The short time that employers spend travelling is due to the close proximity to work as well as the fact that they all travel by car, and this mode of transport is less time consuming when compared to that of a bus or other means of public transport. Five (26.3%) of the employers take between thirty and forty minutes to arrive at work. These are the same employers that live between twenty to forty kilometres away from the office park.

TABLE 9: TIME TAKEN BY EMPLOYERS TO REACH WORK

Travel Time to Work (in minutes)												
Firm Category	0-10min		10-20min		20-30min		30-40min		40 min or more		Total surveyed	
	%	No.	%	No.	%	No.	%	No.	%	No.	No.	%
Finance/ Accounting	37.5	3	37.5	3	-	-	25.0	2	-	-	8	100.0
Computer/IT	50.0	2	-	-	25.0	1	25.0	1	-	-	4	100.0
Engineering	-	-	-	-	66.7	2	33.3	1	-	-	3	100.0
Transport	-	-	100	2	-	-	-	-	-	-	2	100.0
Other	50.0	1	-	-	-	-	50.0	1	-	-	2	100.0
Total	31.6	6	26.3	5	15.8	3	26.3	5	0	0	19	100.0

7.3.2. Employees mode of transport

This section will analyse the employees mode of transport to their place of work and back to their homes. NB: percentages at the bottom of the column are reflective of the percentages in the total sample in the four categories i.e. total of 27

Table 10 reflects a dominant use of cars to and from work (92.6%). There is only one (3.7%) lift club in existence. The one person (3.7%) who took on a lift club is from the computer sector and lives at a distance of 30-40 kilometers away from the Office Park. The reason that was given for the use of the lift club was to distribute the added travel cost since these respondents did not receive any form of reimbursement for the increased travel costs that was imposed by the firm since it relocated. It has also been noted that the specific firm that employed the one person who took on a lift club before it located into the office park, was previously located in the CBD.

Table 10: Employees mode of transport to and from their place of work

Category	Employees mode of transport-to and from work					
	Car	Lift club	Mini-bus taxi	Public bus	Firms bus	other
Computer/ IT	16 (88.9%)	1 (5.5%)	-	-	-	1-dropped off (5.5%)
Engineering	3 (100%)	-	-	-	-	-
Transport	2 (100%)	-	-	-	-	-
Other	4 (100%)	-	-	-	-	-
Total	25 (92.6%)	1 (3.7%)	0	0	0	1 (3.7%)
	27 (100%)					

The other sectors viz. the engineering, transport and the other sector shows 100% car use. The car as a mode of transport makes up 92.6% as compared to the other modes of transport.

The Finance/Accounting sector has been analysed separately (in Table 11 and Table 12) but it will be compared to the other sectors (from the table above). This sector is analysed separately because the responses in the questionnaire revealed that employees used one mode of transport to travel to work and another mode of transport to return home. It also shows a need for an efficient public transport system. The workers need for a better transport system is discussed in following sections.

Table 11 indicates that four employees utilise the public bus service and a further two employees use the firms bus that has been provided. The two people that utilise the firms bus live in the south of Durban. These employees travel to Durban’s CBD via public bus and then board the firm’s bus. The one person who travels from a distance that is greater than forty kilometre, travel by a private bus. The car as a mode of transport is still dominant in this sector because more than half of the employees surveyed travel to work by car.

Table 11: Employees mode of transport to work (Finance/ Accounting) sector

Category	Car	Lift club	Minibus taxi	Public bus	Firms bus	Other
Finance/ Accounting	13 (54.2%)	2 (8.3%)	0	4 (16.7%)	2 (8.3%)	*1-private bus (4.2%) *2-dropped off (8.3%)
Total	24 (100%)					

Table 12 indicates that 8.3% return home by the lift club. However only 12.5% return by public bus. One person (4.2%) returns home by private bus. However 12.5% are fetched from work by family members. One person (4.2%) who travels to work by public bus is fetched from work by a family member.

Table 12: Employees mode of transport to from work (finance/Accounting sector)

Category	Car	Lift club	Minibus taxi	Public bus	Firms bus	Other
Finance/Accounting	13 (54.2%)	2 (8.3%)	0	3 (12.5%)	2 (8.3%)	*1-private bus (4.2%) *3-picked up (12.5%)
Total	24(100%)					

Unlike the other sectors where 93% travel to and from work by car, 54.2 % of the Accounting/Finance sector travels to and from work by car. However the car is a dominant mode of transport. A company bus, a lift club and the public bus offers alternative modes of transport to the workers in this sector. When compared to the other sectors viz. the IT sector, 3.7% uses a lift club and 5.5% are picked up by a friend or family member. The finance/accounting sector has a higher percentage of people using the lift club and being dropped off and picked up from work. The company bus picks up the workers from two different points in the CDB and brings them to work, since the people that use the firm’s bus are the ones whose firm had being previously located in the CBD.

4.2 % (1 person) in the finance/accounting sector travels via a private bus. The questionnaire reveals that this 4.2% resides at a distance that is more than 40km from the La Lucia Ridge Office Estate. This 4.2 % has chosen not to use the firm bus that is provided and

accommodated the additional cost by forming a large lift club (that travels by private bus). This 4.2% has been employed by the companies before it located into the Office Park, and have been employed for a period greater than four years. It has also been noted that this 4.2% possess a higher level of skills, and a job that pays them well enough in order for the additional cost to be accommodated.

This leads to the analysis of additional travel cost, if any is experienced by the employees in the different sectors.

7.3.2.1. Employees travel distance to work

Table 13 shows the employees travel distance to work in the form of the distance away from the Office Park.

A total of 29.4% amongst all the employees lives within a 5km radius of the office park.

Within the finance/accounting sector a total of 70.8 % (17people) live within a 20km radius from the office park. A further 12.5% (3 people) live at a distance between 20-30km away from the office park.

A small percentage of 8.3% (2 people) live at a distance that is greater than 40km away (in Amanzintoti) from the office park. The percentage of people that live at a distance that is between 30-40km away from their place of work. Therefore the finance/accounting sector draws a workforce that is distributed across the DFR.

Table 13: Employees' travel distance to work

Total no. surveyed	Firm Category	Distance ratios-in kilometres radius											
		0-5km		5-10km		10-20km		20-30km		30-40km		40-50km	
		%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
24 (100%)	Finance/Accounting	20.8	5	25	6	25	6	12.5	3	8.3	2	8.3	2
18 (100%)	Computer/IT	44.4	8	5.5	1	22.2	4	5.5	1	22.2	4	-	-
3 (100%)	Engineering	33.3	1	-	-	33.3	1	-	-	33.3	1	-	-
2 (100%)	Transport	50	1	-	-	50	1	-	-	-	-	-	-
4 (100%)	Other	-	-	100	4	-	-	-	-	-	-	-	-
51 (100%)	TOTAL	29.4	15	21.6	11	23.5	12	7.8	4	13.7	7	3.9	2

The computer/IT sector has a slightly higher percentage of people (72.1% to be precise) that live within a 20km radius of the office park. 44.4% of this 72.1% lives within a 5km radius of the office park. Once again this sector consists of a highly skilled workforce, who can afford to not only accommodate the additional travel costs but who are able to relocate to a place of residence that is closer to work.

Diagram 2 illustrates the distances that employees travel to the office park. It is evident that the employment opportunities that are offered at the office park draws on a working population that is spread throughout the DMA. This diagram also illustrates the different locations where the employees reside.

Diagram 2: Illustration of the distance (and areas from which) that employees travel to the office park.

EMPLOYEES TRAVEL NETWORK



7.3.2.2 Employees travel time to work

Table 14 reveals that the majority of the employees reach work within forty minutes of travelling. Those that take more than forty minutes to reach work, are those that live between thirty to fifty kilometres away from the office park. The time that these employees spend travelling is great because these are the same employees that travel via the firm's bus and the public bus. This point indicates the increased time that is spent on travelling if employees do not possess a car.

Table 14: The amount of time employees spend travelling to work

Firm Category	Distance traveled in kilometres radius											
	0-10min		10-20min		20-30min		30-40min		<40min		Total no. surveyed	
	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Finance/Accounting	20.8	5	25	6	25	6	12.5	3	16.6	4	100.0	24
Computer/IT	44.4	8	5.5	1	22.2	4	5.5	1	22.2	4	100.0	18
Engineering	33.3	1	-	-	33.3	1	-	-	33.3	1	100.0	3
Transport	50	1	-	-	50	1	-	-	-	-	100.0	2
Other	-	-	100	4	-	-	-	-	-	-	100.0	4
TOTAL	29.4	15	21.6	11	23.5	12	7.8	4	17.6	9	100.0	51

7.3.3. Adequacy of parking in the office park

According to the development manual for the office park development, the following parking provisions are necessary:

- In the case of buildings having gross floor areas in the excess of 500m², at a ratio of one bay per 25m² of gross building floor area, i.e. 4 cars/ 100m²
- In the case of buildings having gross floor areas of 500m² or less, a parking ratio of one bay per 20m² of gross building floor area, i.e. 5 cars/ 100m²
- A minimum of 3 bays/100m² of gross floor area is provided within the structure of the building. This parking provision does not follow the parking requirements of the Town Planning Scheme, which states that there should be a provision of 4 bays/100m².

Source: Development Manual for the La Lucia Ridge Office Estate, as revised in October 1997

Table 15 reveals that the majority of the employers consider there to be an adequate number of parking bays for the firms that fall within the respective categories. As the table above indicates that the computer/IT, engineering and transport sector all feel that the parking bays provided is adequate for the firm and its staff.

In the finance/accounting sector 75 % of the employers considers there to be adequate parking bays. An additional 25% feels that the parking bays for the firm is not sufficient. It has been observed that the firms in the finance/accounting that responded that there is an inadequacy of parking bays are the small firms which leased office space from a building that was occupied by at least 3 to four other firms. The large firms in this sector, which usually occupied an entire building, responded that the parking was adequate.

TABLE 15: ADEQUACY OF PARKING BAYS

Category of firms	Adequate Parking Bays	Shortage of Parking Bays
Finance/Accounting	6 (75%)	2(25%)
Computer/IT	4 (100%)	0
Engineering	3 (100%)	0
Transport	2 (100%)	0
Other	0	2 (100%)
TOTAL	15 (79%)	4 (21%)
	19 (100%)	

The Development Manual (10/97) for the Office Park states that 75 % of the parking bays that are provided has to be in the form of basement parking and only 25% of the parking should be surface parking. The surface parking bays have to prioritise the landscape and the use of grass -block surfaces permits the blending of the parking into the surrounding landscape. The parking regulations allows for an aesthetically appealing landscape and does not allow for tarred parking bays to dominate the landscape, especially when the car is the dominant mode of transport. According to E. Wood (GAPP –Architects & Urban Designers) there has been an accommodation for additional parking bays into the office park. However a considerable demand for more parking is not expected for years to come (*per comm.* 1999).

Developers are increasingly becoming aware that a high bulk results in destruction of the intended office park environment. An authentic office park is a highly competitive property market (Planning, 1997). The low bulk in the case of the case study could

support this argument. However the dominance of car ownership at this decentralised office park means that parking must be adequate. Planners must therefore ensure that developers parking provision meets the requirements that are stipulated in the Town Planning Scheme for the NLC (1996).

7.3.4. Public transport

The public transport that was evident on Umhlanga Rocks Drive included private buses, the mini-bus taxi and the Durban Metropolitan Transport Bus (DMTB). The M4 is the main roadway for the mini-bus taxis and private buses from the surrounding settlements, namely, Verulam, Phoenix, KwaMashu and Inanda to the CBD. There are private buses from Inanda and KwaMashu that utilise Umhlanga Rocks Drive. These buses pick up passengers from Inanda, travels through Glen Anil (**Map 1** indicates the geographic location of Glen Anil in relation to Umhlanga and Inanda) and then journeys on Umhlanga Rocks Drive, to the existing Umhlanga town centre. **Map 7** indicates the bus stops that are found on Umhlanga Rocks Drive, within walking distance of all the mini office parks. At 07:00 am employees were seen utilising the private buses that departed from Inanda and getting off at the bus-stop closest to mini office parks at Pencarrow and Frosterly (i.e. bus-stops one and two on **Map 7**). At 07:30 employees were also seen utilising the mini-bus taxis that dropped them off at the above mentioned bus stops. At 16:10 and 16:30, the employees (15 employees) that arrived by bus or the mini-bus taxis were seen boarding these buses or mini-bus taxis at bus-stops 1 and 2, in the afternoon to return home.

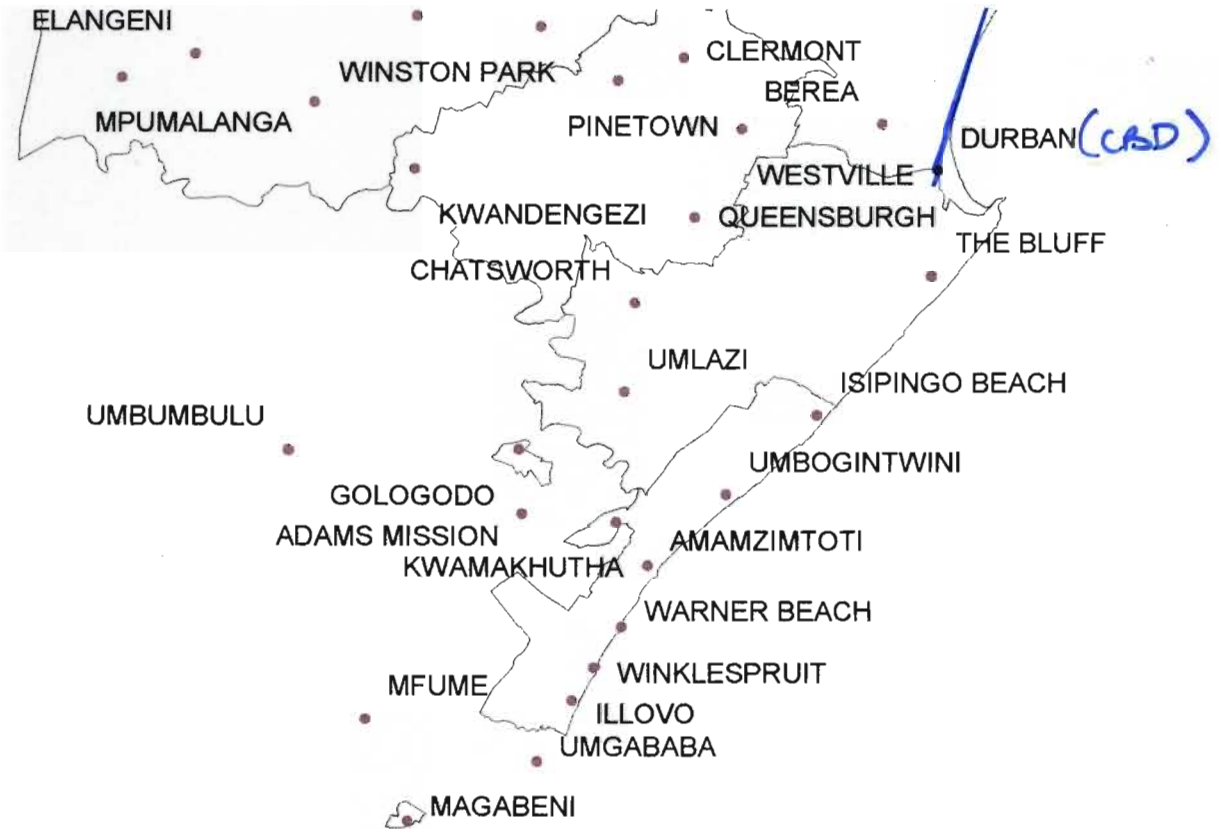
During the course of the day, mini-bus taxis that departed from the Umhlanga Town Centre travels along Umhlanga Rocks Drive, pass the mini office parks (picking up passengers from bus-stops 2 and 3) and travels to the La Lucia Mall (as indicated on **Map 4**) (**Diagram 3** shows the travel routes for the buses and the mini-bus taxis). Some mini-bus taxis travel directly to the CBD and others stop at the La Lucia Mall to pick up more passengers so that their (taxi drivers) trip into the CBD is economically

viable. The frequency of the mini-bus taxis on Umhlanga Rocks Drive, pass the mini office parks, is one every fifteen to thirty minutes. Buses were observed at intervals of forty to fifty minutes. The most number of mini-bus taxis and buses is during lunch hour (i.e. between 12:00pm and 13:00). During lunch hour the frequency of the mini-bus taxis was one every fifteen minutes. The frequency of the buses was one every thirty or forty minutes.

Private buses on the other hand travel from the Umhlanga Town Centre on Umhlanga Rocks Drive through Glen Anil and into Inanada or KwaMashu. The private buses did not travel into the CBD since the DMTB travels from the Umhlanga Town Centre into the CBD.

The responses from the survey indicated that employees desired an efficient, safe public transport system so that they could visit the amenities in the area. The following diagram clearly shows the types of public transport available as well as the points of departure and their destination from the office park site.

Diagram 3(on the following page): illustration of the exiting public transport network in the study area



- TAXI / BUS / ROUTE
 • Metrotowns
 * Office park
 □ TLC



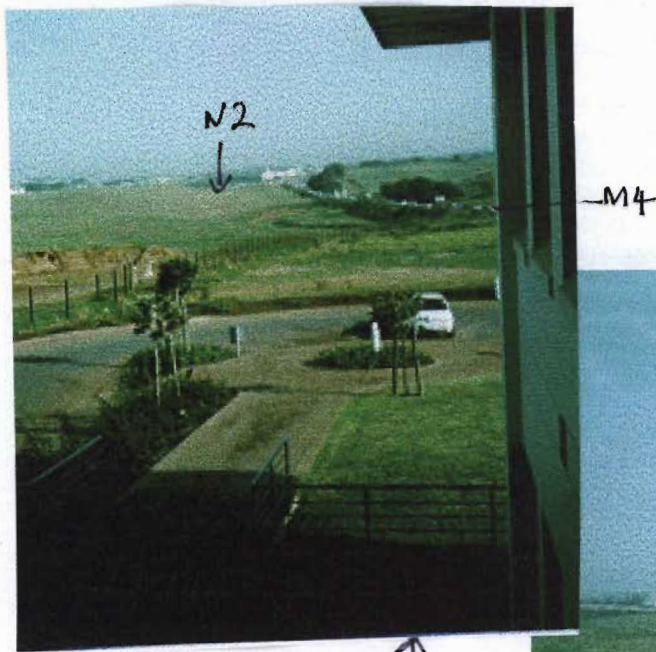
7.3.5. Traffic congestion during peak hours

Umhlanga Rocks Drive is the main arterial route (**Map 7** shows this arterial), linking the office park to the Umhlanga town centre and to the residential area i.e. La Lucia and Umhlanga.

In the early mornings (7:30am to 8:10am) the N2 on ramp to the M4 (North Bound) and the M4 off ramp onto the N2 (South bound) (refer to **photograph 5**) generated high levels of traffic³. According to K.Davies (*per comm.* 1999) the developers have taken account of the anticipated high levels of traffic for years ahead and additional roads and bypasses will be built in due course. The heavy traffic flows onto the M4 shows a direct relation between the dominance of car usage by employees in the area (The NLC). The current high levels of traffic and 'chaos' in the vicinity of the office park is because the bridge on Umhlanga Rocks Drive is being widened and the construction process hinders the flow of traffic.

Photograph 6 shows the high volumes of traffic during lunch hour, that are heading from the Umhlanga town centre. At the very same moment, a photograph was taken of traffic travelling from the opposite direction (**photograph 6a**). This photograph indicates that the traffic coming from the office park is lesser. It is this observation of traffic that illustrates that the traffic circles on Umhlanga Rocks Drive in the vicinity of the office park works well by regulating traffic, as soon as the traffic volumes tend to increase.

³ It would have been interesting if one had to count the number of motor vehicles, but it was not seen as necessary because of the assumption that the broad generalisations would be accurate enough.



TAKEN AT 7:20^{am} ↗



TAKEN AT 7:40^{am} ↘

Photograph 5: illustrating the high volume of traffic the mornings on the N2 and M4 interchange



POINT AT WHICH TRAFFIC IS
BACK-LOGGED

Photograph 6: illustrating traffic leaving the Umblanga town centre at lunch hour



Photograph 6a: illustrating traffic travelling from the direction of the office park

7.4. Perception of the office park

This section will evaluate the employers and employees perception of the office park in terms of their feelings on safety and their happiness to work in the office park environment.

7.4.1 Employers perception of the Office Park

The responses that were received in the survey reveal that all the employers are satisfied and happy with the location. All of the employers shared the perception of safety in the office park. The following testimonials reveal the employers perceptions of the office park.

“The view must compete with the best in KwaZulu-Natal with a very clean, well maintained and standardised environment. We are close to amenities such as an excellent shopping centre and gym as well as one of the best golf courses in the country” *Gary Meyer ,Assets Manager,Q-Data Consulting*

“Customers and suppliers find access convenient and parking safe, while our staff feel secure in the park-like, clean and well maintained environment” *Pip Lorentz, Director,Internatinal Underwriters and Administrators (Pty) Ltd.*

Among the reasons that were given by employers for their decision to relocate was that the Umhlanga area was perceived to be a growth area and it was in the interest of the firm to relocate to this area. Another reason was so that employees could concentrate on special projects, and a branch firm was therefore established in the office park. Another reason was that the clean, appealing environment and the safety that the park provided was attractive to the employers and this influenced them to move. Some firms that consisted of a number of branch firms relocated to centralise their organisation. The crime and the traffic congestion in Durban’s CBD was amongst the reasons for firms deciding to relocate.

7.4.2. Employees perception of the Office Park

This section will then compare the responses (tabulations) of the employees to the tabulations that were received from the employers. At this point the reasons for particular responses will be discussed.

The overall findings (as it appears on **Table 16**) are that 92% of the employees are happy with the office park environment. The percentages for each sector are calculated by dividing the number of responses by the total number of responses in that sector (chapter 2 details how many employee responses were received in each sector). The percentages at the end of each column are calculated from the total sample size i.e. from the sample of 51.

Table 16: Employees perception of the Office Park Location

Category	Are people Happy		
	YES	NO	Gender that is unhappy
Finance/ Accounting	21 (87.5%)	3 (12.5%)	All 3 females
Computer/ IT	17 (94.4%)	1 (5.5%)	1 male
Engineering	3 (100.0%)		
Transport	2 (100.0%)		
Other	4 (100.0%)		
Total (from the sample of 51)	47 (92.2%)	(7.8%) 4	3 (F) 1 (M)
	100 %		

It must be taken into account that the females whose responded that they were unhappy, all do travel via public bus and then board their firms bus from the CBD and all of their firms were previously located in the CBD. These respondents also live at distance that falls within a radius of 20-30 kilometers and 30-40 kilometers away from

the Office Park. Therefore the long time that they spend travelling by public bus and the firm's bus is what makes them unhappy to be located away from the CBD (their previous work location)

In the computer sector the one male who was unhappy about the location due to the increased travel cost that was incurred lived between 30-40 kilometers away from the Office Park. The reason for dissatisfaction was attributed only to the increase in travel costs. The dissatisfied male did receive a travel grant, however the total expense incurred was not reimbursed. This dissatisfied person does however travel by car.

The table above indicates the employees mode of transport to and from their place of work, i.e. the La Lucia Ridge Office Estate. The employees mode of transport for the Finance/Accounting sector will be illustrated on a different table because responses showed that employees used one mode of transport to get to work and another mode of transport to go back home. All the employees responded that they feel safe in the office park environment. This is confirmed by the fact that all of the employees whose job involved working after hours, worked after hours for three days or more per week.

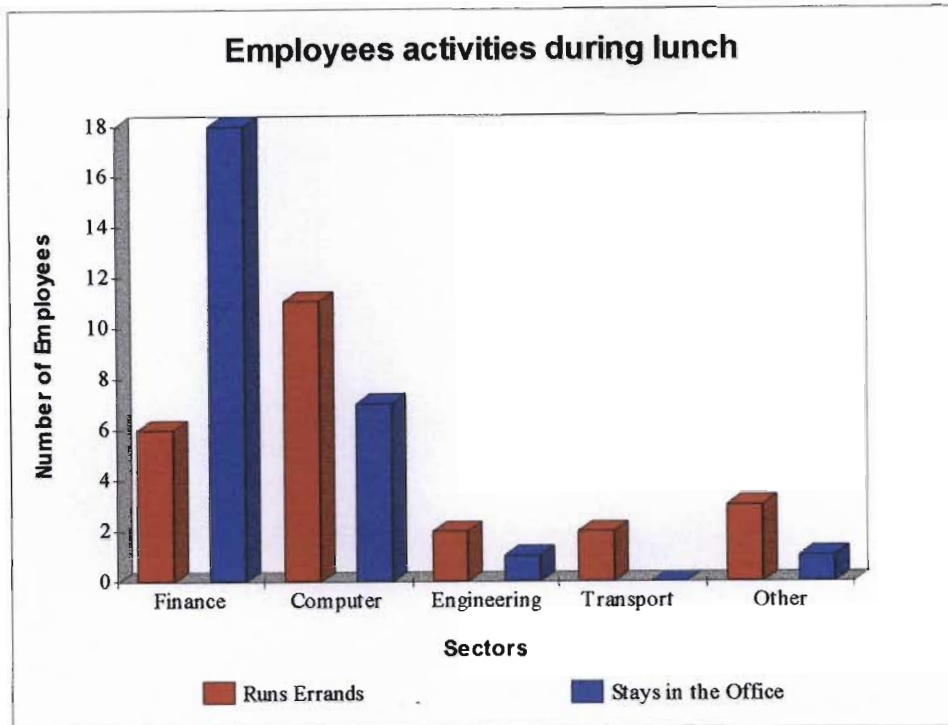
7.5. Use of internal and adjacent facilities

This section will discuss the employers and employees use of the adjacent facilities that were mentioned in **chapter 5**. This section will be discussed by assessing the employees and employers activities during their lunch break.

7.5.1. Graph 1 Illustrates the employees activities during their lunch. Employees in all the sectors run errands during their lunch break. The number of people that run errands during their lunch break is clearly evident in the graph. The general area in which the employees conduct their errands is in the La Lucia Mall and in the existing Umhlanga town centre (or Village as employees refer to it). The following data were

reasons that were received by the employees who stayed in the office during their lunch.

In the finance sector 18 of the 24 employees that were interviewed, stay in the office during their lunch break. Of the 18 people, 3 people stay in the office to do their work, and 15 stay in the office because they do not have cars and do not rely on the public transport system because 'it is too time consuming'. The lack of cars mean that the employees activities during their lunch break is confined to their work environment. However K.Davies (*per. comm* 12/1999) said that the developers, namely Moreland (Pty) Ltd have recently started providing a bus service to the people that work in the office park. This bus service runs on a route along Umhlanga Rocks Drive to the La Lucia Mall. This bus service will allow for employees to conduct their errands at the La Lucia Mall that provides a range of services, including that of banks, supermarkets and a number of departmental stores. The bus service was not evident during the course of the field research, and it is for this reason that many employees complained that the bus service to the amenities were poor. It must also be noted that at the time the surveys were conducted, The Square was not totally occupied. It is for this reason that the majority of the respondents did not visit The Square or said that the opening of The Square did not improve their access to amenities. There were two respondents that did visit The Square during their lunch break. However from observation during the latter part of this year, The Square was fully let, and the researcher observed that many employees began to visit The Square. The employees from the office parks adjacent to the Square were seen walking to The Square. During July 1999 there was a fence around The Square and employees revealed to the researcher that they had to travel along Umhlanga Rocks Drive to



Graph 1: Graph illustrating the number of employees that conduct errands during their lunch break

visit The Square, even if they worked in the ‘mini’ office park (namely, Frosterly and Cranbrooke) adjacent to The Square. However when the researcher returned three months later, it was observed that the fence that separated The Square from the adjacent parks were removed. This allowed for easy access for employees and employers into The Square.

In the computer sector, 11 of the 18 employees that were surveyed run errands during their lunch break. One respondent who lived close by, picks up her child from school during her lunch break. Seven stay in the office, and three do so because they prefer the office environment. Two of the respondents said that the inadequate transport limited their access to the surrounding amenities:

In the Engineering sector and Transport sector all of the respondents said that they conduct their errands during their lunch break. The reason for this is because a car as a mode of transport in this group is high, when compared to that of the accounting/finance sector. This sector further employs people that are highly skilled and can therefore afford to own a car.

In the Other (which consisted of firms that were stated in Table 1 in chapter 2) sector all of the respondents, run their errands during their lunch break.

All of the employers (from all the sectors)s that were surveyed said that they run their errands during lunch at the adjacent facilities. Many of them responded that The Square improved their work environment and provided good facilities for their business lunches or to relax after work at the pub or at one of the casual cafés.

7.6. Conclusion

This chapter stated briefly the results from the surveys that were distributed to the employer stakeholder group followed by the results that were tabulated from the employee stakeholder group. This chapter has shown that the office park draws on a work force that is scattered throughout the DMA. These findings leads to the implications for planning.

Chapter 8- Important issues facing firms and the implications for Planning

8.1. Introduction

This chapter will begin by discussing the observations that were made by the researcher during the course of the field work. It will then discuss the effects of the office park on the surrounding land uses in the Umhlanga area and for the DMA. It will then discuss the implications that face firms that decided to relocate into the decentralised office parks This will be followed by the evaluation of hypothesis i.e. *The La Lucia Ridge Office Estate does not meet the needs and expectations of all its stakeholders*. The hypothesis will be evaluated by assessing the extent that the office park meets the needs and expectations of the stakeholders that were identified (namely, the developers, the local authority, the employees, the employers, investors, tenants and clients).

The evaluation of the hypothesis will be followed by a discussion on the implications for planning and possible recommendations further research.

8.2. Observations made during the field research

This survey aimed to be:

- as objective as possible
- to add to the information collected in the questionnaire surveys, in order to contribute to a better understanding of the study area.
- To contribute to the functioning of the understanding of the study area through personal experiences and observations in the study area.

8.2.1. Limitations of the survey

This survey aimed to be as objective as possible, however it needs to be emphasised that this survey contained one person's view, and could be interpreted as biased and subjective. In light of the aim to be as objective as possible, it is hoped that such censure does not occur.

Observations were made throughout the day for some issues (such as observing the use of public transport, and the frequency of public transport vehicles) and only at certain times of the day for other issues (such as observing whether the Square is visited by people from the office park, or by people from the surrounding areas.). These observations became extremely time consuming, resulting in the researcher drawing generalised observations.

8.3. Discussion of the observations that were made

- People had to use road pattern when walking on the pavements that were evident, no foot - paths were present but employees were cutting across the lawn. The designers response to this observation was that foot paths will be constructed as soon as the short-cuts to buildings are verified (E. Wood *per comm.* 1999)

- When The Square opened in July of this year, it was located in a one of the mini office parks. This meant that people visiting The Square from adjacent office parks will have to use the main road network, viz. Umhlanga Rocks Drive and then enter the square. However on a follow up visit to the office park, it was observed that the fence that isolated the square to one office park, had been removed. This meant that employees and employers could walk to the square from adjacent office parks, thereby making the office park environment pedestrian friendly. This point demonstrates that planning is always changing and as the employee patterns and needs change, the office park environment is adjusted accordingly.

- Despite the office park being located in close proximity to the La Lucia Mall and the Umhlanga town centre, employees without access to a car were not able to enjoy these facilities. It can be assumed that as soon as the Gateway (as indicated on **Map 7**) shopping centre is complete, there will be a viable threshold for an efficient safe public transport system to be implemented. On observation, not many people were seen at the bus stop during the course of the day. The Town Planner for the developer stated that the infrastructure exists and as soon as there is viable thresholds for public transport then buses and mini-bus taxis will take advantage of the infrastructure (T.C. Chetty *per comm* 1999)

- The Square is most certainly 'alive' at night. A restaurant manager (George *pers comm*.1999), stated that the restaurants and bars in The Square are not only frequented by the people that work in the office park, but also by the surrounding residents and at times by tourist. Employees from all levels of skills (ranging from secretaries to directors) visit the restaurants and facilities in The Square. Indian residents from the surrounding towns frequently visit the restaurant in question (*ibid.*) The casual pubs and more formal restaurants cater for a people with different preferences. The respondent stated that employers often visit the restaurant for business lunches.

- Firms with national significance are no longer found in the CBD- as the research reveals, that the top 3 firms in the country, that have offices in Durban, are found in the office park. However accessibility, whether for the executives to travel out to meet clients or whether for clients to travel to the firm is important. The survey did reveal that amongst the employer comments on the office park location was that the clients felt safe visiting the office park, and are pleased with the secure parking.

- As Gilbert (1977) concluded that activities/sectors tend to form clusters. This is evident in the office park. The finance and computer sectors are clustered in the office park. Some mini office parks as revealed in table one (chapter 2) show clustering of sectors of firms

within the mini office parks (some firms were found to be linked to other firms in the office park e.g. PQ Africa).

- Employers that responded that they traveled out to meet clients, traveled throughout the DFR. Some employers did travel to the CBD, but the CBD was not the most frequented location by any of the sectors.

- There was most certainly a demand for the office park environment and location. Major blue chip firms were prepared to relocate from the CBD into the Office Park. One blue chip firm relocated to centralise its organisation and bring together the different branches of the firm that was responsible for different functions. Therefore it can be concluded that the office park was built in response to the market's demand for prime office space.

Cowan et al (1969) state that a location is of little relevance to some activities. The smaller firms as well as the one that have located for the first time into country (in the office park) stated that they located into the office park because of the prestige and safety that was offered. However some firms responded that they located into the park because the area was perceived to be a growth area, or that the office park was in close proximity to their major clients (at times clients were said to be moving into the Umhlanga area within the next two years). Clients felt safe visiting firms in the office park.

8.4. The effect of the La Lucia Ridge Office Estate on the surrounding land uses

According to the Sunday Tribune (20/6/99) a ripple effect has been created by the commercial and office developments on the residential market. Major blue-chip clients such as USKO, Origin Bank, Absa Bank and JD Edwards with office leases of 2250sq m have been collectively worth nine million, in the last three months (from June). "In the past two months at least eight homes have been purchased by company directors whose companies are setting up in the area". Three stands were recently sold by Ardain (Umhlanga's homenet Ardain) at R400 000 each for homes for executives whose companies are setting up in the area. The

multimillion –rand office development together with commercial development has ensured interest in the Umhlanga area's home market.

The office park has stimulated the residential market in the Umhlanga area and has most certainly encouraged investment into the Umhlanga area. This chapter will seek to link the findings from the case study to that of the theoretical framework.

8.5. Consequences facing the firms

Firms had to increase the travelling allowance of the workers because the travel cost exceeded the budget of employees more than that which is affordable. People (3) were forced to resign from their position because the location was inconvenient especially when the previous location had been closer to their homes. The additional travel time and travel cost was the reason for people leaving when a firm relocated into the office park. A firm therefore needs to consider the level of skills that their employees possess, and the dominant mode of transport that is used by the employees. The distant location is well suited for firms that display a highly skilled workforce with the motor vehicle being the dominant mode of transport.

8.7. Evaluation of the Hypothesis

This section will discuss the success of the La Lucia Ridge Office Estate in meeting the expectations of all its stakeholders (i.e. to test the hypothesis) that were identified in chapter 1. The different aspects and issues that were raised in office decentralisation and issues that brought to the fore by the questionnaire results will be evaluated in order to approve or disprove the hypothesis. This section will also discuss the qualitative elements that were noticed or made known in the Office Park environment, as well as amongst the employers and employees.

8.7.1 Developers satisfaction in the office park development

“The La Lucia Ridge Office Estate is the epitome of a product which is so highly sought after. In fact the very intention of the Office Park was to create, a unique, exclusive, high quality, secure, accessible and convenient Office Park, set in a park-

like environment. The success has been overwhelming , both in terms of product created and in terms of sales” (Rezoning Application, pg. 16, 03/99). The developers hoped to keep the office environment alive at night, and the observations show that this was achieved. The developers also aimed to provide jobs to the north of the Umgeni River (**Map 2** shows this river)as there is severe traffic congestion, due to people having to travel to the south of the Umgeni River for job opportunities. According to the developer the office park was successful because studies carried out by the developer revealed that there was a decrease in the amount of traffic that were travelling to the south of the Umgeni River after the office park was built (T.C. Chetty *per comm* 1999). The office park has been a success in term of the developer’s expectations.

The success of the park from the developers perspective has been phenomenal, so much so that an extension of the office park was seen to be necessary. The literature on office demand in chapter 3, indicates that A grade office space is desired. The results from the surveys reveal that the demand for office space has been in the Umhalanga area. The developers needs and expectations were totally met in the office park development.

8.7.2. Tenants/Employers satisfaction

The tenants or employers found the office park environment and its location to be excellent. The employers appreciate the lack of traffic congestion that is evident throughout the day in Durban’s CBD. They also find it easy to travel out to meet clients. The results in the previous chapter confirm that the employers/tenants needs and expectations of the office park were certainly met. The employers are also pleased with the access to the surrounding amenities.

A restaurant manager (George *per comm*.1999), stated that the restaurants and bars in The Square are not only frequented by the people that work in the office park, but also

by the surrounding residents and at time by tourist. Employees from all levels of skills (ranging from secretaries to directors) visit the restaurants and facilities in The Square. Indian residents from the surrounding towns frequently visit the restaurant in question (*ibid.*)

The tenants at The Square feel that the location of their businesses in The Square was a good choice. These tenants displayed satisfaction for the location of The Square and are optimistic about the future of their businesses.

8.7.3. Employees satisfaction

Among different level of skills, access to amenities seems to be a problem. The higher level of skilled workers that possessed cars were content with the office park location. The high level of skilled workers also referred to the office park environment as professional. Therefore it is suggested that such environments are suitable for high levels of skill, and if a firm decides to relocate then they can do so if, their employees have high levels of skill, if there is a dominant car ownership and if relocation doesn't affect workers negatively. The employees that spent extended periods of time on travel and experienced increased travel cost were not happy with the location. However the majority of the employees were happy with the location. All of the employees felt safe in the office park environment, and this in itself is an achievement, considering the perception of crime in Durban and in the country as well. There is a desire amongst employees for a safe, reliable public transport system. It can therefore be concluded that the employees needs and expectations were met.

8.7.4. Local government satisfaction

The local government was pleased that the office park has revived growth and development in the Umhlanga area, and in the DMA as well. This stakeholder group was happy that the office park has increased the rates base in the NLC. Soon all the local councils in Durban will merge to form one council that is referred to at the 'Uni-City'. When the councils merge then the rates that are generated from the office park

will be utilised for the development in the entire region. The NLC also stated that the increase in the number of developments, means an increase in traffic volumes. At times the NLC may not have money to build the adequate road infrastructure to accommodate the high volumes of traffic, and at this point the developers build the road infrastructure. This point shows a public-private partnership. T. Fairlough (in Town and Country Planning, Summer School 1997) gives support, in that there should be a place for public and private partnership in road investment. Transport must be adequate to support economic development. Once the road infrastructure is in place public transport services will respond to a demand for their service. On the point of public-private partnership that is evident between the NLC and the developers or the land owners, it has been noted that the land owners future plans have been incorporated into the Integrated Development Plan (IDP) for the NLC. This further supports the advantages of a public private partnership, whereby the local government can encourage private developers to invest in the projects (e.g. roads) that will be beneficial to the public at large and not just to the developer.

The challenge for planners at this point is how to speed up response to the changing dynamics of development. At this point the planner needs to provide a clear framework on where development should go instead of telling people that they have chosen to develop in the wrong place. The planners need to provide confidence and certainty if they want to persuade developers to take a long- term view. As in the case of the office park, the planners foresaw the increased levels in traffic and made provisions for new roads to allow for accessibility. The local government feels that the needs and expectation in terms of economic development for the NLC were adequately met.

8.8. Conclusion

This chapter of the research has shown that the hypothesis has been refuted. All of the identified stakeholder groups are content with the location of the office park. A number of

observations were made by the researcher regarding the office park development. The observations were both positive and negative.

Chapter 9 - Recommendations Conclusion to the study

9.1. Recommendations for further research

Office clusters appear in different intensities. They occur along corridors and prefer a congestion free environment. The location of offices into decentralised locations and into office parks in a cluster form cannot be understood in isolation. It is important to understand the agents that are involved in the development process. These agents include the construction industry, the planners, the developers, the local authorities and the countries economy.

There are a number of avenues along which further research could proceed

1: The case study has pointed out some specific issues. One of the issues is the impact of large office developments on the surrounding suburbs.

2: A comparison of different office locations in the DMA will be useful

3: When offices decentralise from the CBD, there must be severe implications for the CBD. Office space constructed in the suburbs is filled at the expense of the CBD. Research into these implications are important if appropriate policy is to be developed.

4: The negative externalities on the built environment could lend insight as to why employers prefer decentralised locations.

5: Another informative point for further research will be to research the concept of edge cities and how offices will form part of this edge city that is being created.

Effective office policy for Durban needs to be understood in the specific context of Durban.

9.2. Conclusion

The La Lucia Ridge office Estate is a development that has been successful. The needs and expectations for the majority of the stakeholders were met. The study has shown that accessibility plays an important role for firms. However it was revealed in the case study that it is no longer essential to meet clients, often due to the technological advances. The lack of need to travel to meet clients is supported by the finding that the office park is dominated by the finance sector. Earlier literature suggested that the finance sector needed to be at a central location in order to survive. Goddards argument that proximity was not essential for the working of a business, is supported by the findings in the research, where the employers do travel to meet clients to various locations but not as often as previous literature suggests due to the efficiency in telecommunications.

The decentralised office park was clearly a response to the demand in the market for decentralised A-grade office space. The earlier literature suggested that firms located in the CBD so that they could draw on the entire region's population. This point is refuted in the case study where it was found that employees travel from throughout the region to the office park.

Continued growth and overcrowding in the CBD will intensify the movement of office activities away from the congested environment. The decentralised office locations provide adequate parking, safe environments to the employees and to the clients who visit these firms. The decentralised location allows for expansion possibilities for the firms. The decentralised locations are highly accessible because they are located along major road networks. Decentralisation of offices offers many advantages to the stakeholders of office decentralisation. This decentralisation occurs in different forms, ranging from scatteration, office park developments and nodes that contain large office developments. The different forms of decentralisation must be understood together with the factors that influence the decentralisation, so that planners can develop guidelines for effective, efficient office development.

References and Bibliography

Alexander, I. (1979) **Office Location and Public Policy**, Longman, London.

Armstrong, R. (1972) **The Office Industry: Patterns of Growth and Location**, New York, M.I.T. Press.

Armstrong, R. A. and Pushkarev, B. (1973) **The Office Industry, Patterns of Growth and Location**, MIT Press, Cambridge, Mass.

Augoustinos, M. and Walker, I. (1995) **Social Cognition , An Integrated Introduction**, SAGE Publications, London.

Bryman, A. and Cramer, D. (1990) **Quantitative data Analysis for Social Scientists**, Roulledge, London.

Balchin, P. N. (1991) **Urban Land Economics and Public Policy** (4th edition) MacMillan Education LTD.

Castells, M. (1989) **The Informational City: Information Technology, Economic Restructuring and the Urban Regional Process**, Blackwell, London.

Cowan ,P. et al (1969) **The Office: a facet of Urban Growth**, London, Heinemann.

✓ Daniels, P. W. (1975) **An Urban Regional Study : Office Location**, G. Bell and Sons LTD. York House, Portugal Street, London.

Duffy, F. (1990) **The Responsive Office : People and Change**, Polymath LTD. The Old School House, Steatley Hill, England.

✓ Fainstein, S. (1994) **The City Builders : Property, Politics and Planning in London and New York**, Blackwell, Cambridge.

Fairclough T. (1997) "*Roads: where are they going?*" **Town and Country Planning**, Summer 1997, pp. 47-50

Gilbert L.A (1975) **Offices in Durban: Implications for Policy**. Unpublished Dissertation, Department of Town and Regional Planning, University of Natal, Durban

Goddard, J. B. (1975) **Office Linkage and Location : A Study of Communications and Spatial Patterns in Central London**, Biddles LTD. Guildford, Surrey.

Goddard, J. B. (1975) : **Office Location in Urban and Regional Development**, Oxford University Press, London.

Goddard, J. B. (1991) **New Technology and the Geography of the Information Economy Cities of the 21st Century**, Bronchies *et al* (ed), Longman, Cheshire : New York.

Goga S, (1999) **Property Power vs Peoples Power**, forthcoming Phd, Rutgers, The State University of New Jersey, Graduate School, Dept. of Urban Planning and Policy Development

Harvey, J. (1992) **Urban Land Economics**, Longman, MacMillan 4th edition.

Healey, P. (1994) "*Urban Policy and Property Development : The Institutional Relations of Real Estate Development in an Old Industrial Region*", **Environment and Planning A**, Vol. 26 (1) pp. 177 - 198

Healey, P. and Nabarro, R. (1990) **Land and Property Development in a Changing Context**, Gower Publishing Company LTD. Aldershot.

Hoover, E. and Vernon, R. (1959) **Anatomy of a Metropolis**. Cambridge, Harvard University Press.

Hoyt, H. (1939) **The structure and Growth of Residential Neighbourhoods in American Cities**. Washington D.C., US Government Printing Office.

Kahn, M.(1984) **Planning for change in the Shopping Structure of Metroplitan Durban**. Ph.D. Thesis, University of Natal.

Keane, S.A (1980) **A Pilot Study of the Growth, Location and Spatial Requirements of the Quaternary Sector of Economic activity in Metropolitan Durban.** unpublished dissertation, Department of Town and Regional planning, University of Natal, Durban.

Kleyn, D. G. (ed.) (1992) **Silberberg and Schoeman's – The Law of Property** (3rd edition), Butterworths Publishers (Pty) Ltd. , Durban

McCarthy, J.J and Smit, D.P (1984) **South African City: Theory in Analysis and Planning.** Cape Town, Juta.

Pratkanis, A. R. and Green, A. G. (1989) “*A Social Cognitive Model of Attitude Structure and Function*”, in L. Berkowitz (ed), **Advances in Experimental Social Psychology**, (Vol. 22), New York Press.

Pretorius, J. T. (ed.) (1994) **Business Entities**, Juta and Company Limited , Cape Town

Pretorius, J. T. (ed.) (1997) **Hahlo's South African Company Law** (5th edition), Juta and Company Limited , Cape Town

Pye, R. (1979) Office Location: ‘The Role of Communications and Technology’ in **Spatial Patterns of Office growth and Location.** (ed. P.W Daniels). London, John Wiley and Sons.

Raynsford N. (1997) “*A faster Response: An address by the Minister of London and Construction*”, **Town and Country Planning**, Summer 1997, pp. 44-46

Rode Associates (1998) **Report on the South African Property Market**, 1998:1, Vol. 11, No. 1

Sharrock, R. (1996) **Business Transactions Law** (4th edition), Juta and Company Limited , Cape Town

SAPOA (1994) ‘Office Vacancy Survey’, **SAPOA News**, May,

Williams, R. C. (1996) **Income Tax in South Africa – Law and Practice** (2nd edition), Butterworths Publishers (Pty) Ltd. , Durban

Documents from Local Government and the Developers (i.e. Moreland Pty (Ltd))

La Lucia Ridge Office Estate, Development manual, GAPP architects and urban designers, 08/96 and as revised on 0/97.

La Lucia re- zoning application

La Lucia Ridge Office Estate Extension, Rezoning Application, A Motivation Report, 03/99

EIA report, 1998

La Lucia Ridge Office Estate Brochure, 1999

Moreland Developments (Pty) Limited. **Office Building Grades.** Durban

Moreland Estates (Summer 1996). Moreland Views, Durban

Moreland Estates (Summer 1998). Moreland Views, Durban

Moreland Estates (Winter 1998). Moreland Views, Durban

Moreland Estates (Winter 1996). Moreland Views, Durban

The JHI Property Services, (1999). **The Kwazulu-Natal Property Report-1999/2000**

List of Journals

Architect and Builders August 1999, “ **Offices for Lindsay Smithers Bond**” pp2-7

Building , August/ Sept 1999 .no 71, “ **La Lucia – the Square- office and shops**”, pp. 60

Ekistics, Vol. 39, “**Urban Centrality and the Interweaving of Quaternary Activities**”, pp 322-331, Gottmann , J. (1970)

Ekistics, Vol. 39, “**The Evolution of Urban Centrality**”,. pp 220-228, Gottmann , J. (1975)

In Annals of the American Academy of Political and Social Science, Vol. 242. ‘**The nature of Cities**’ pp. 7-17, Harris, C.D (1945)

Planning, July 1994, no.134 “ **Rosebank office park: a superbly imlemented character design**” pp53-55

Planning, July 1997 no.152. “ **Woodmead Estate Office Park: Phase 1, Woodmead: The art of integrating office buildings with the environment**” pp 24-27

News Paper Articles

Sunday Tribune property, 27/699

Sunday Tribune property 20/6/99

Sunday Times business, 14/11/99.

The Financial Week (9/10/98

Formal interviews

Ms. S. Goga Department of LED, Durban Metropolitan Council (Dbn) 27/7
Mr. T.C. Chetty - Moreland Property Developers (Pty.) Ltd. (Dbn) 29/7
Mr. R. Wilkinson -Moreland Property Developers (Pty.) Ltd (Dbn) 29/7
Mr. Erky Wood -GAPP Architects and Urban Designers (JHB) 21/10
Ms. A Allopi -North Local Council (Dbn) 25/11
Mr. K.Davies - (Dbn)

List of Appendices

Appendix 1

Questionnaire for employer

Appendix 2

Questionnaire for employees

Appendix 3

Case study on South African company law

Appendix 4

Photographs

APPENDIX

1

EMPLOYER'S QUESTIONNAIRE SURVEY

This survey is being conducted by a student from the University of Natal-Durban whom is completing her Masters Degree in Town and Regional Planning. The information is being utilised for research purposes. All information would be treated confidentially. Please assist in completing the questionnaire.

Thank you for your assistance.

PLEASE CIRCLE THE CORRECT ANSWER:(and state the reason/s where required)

For example: I am a) happy b) not happy

1. Sex

- a) male b) female

2. What is your race?

- a) White b) Coloured c) Indian d) African

3. What is your age?

- a) below 25 yrs b) 25-30 yrs c) 31-40 yrs d) 41-50 yrs e) over 50 yrs

4. In which general area do you live? for example, Phoenix, Verulam, Umhlanga etc.

Answer: _____

5. How long have you been living in the above mentioned area? _____

6. State the nature of your job. For Example: director or engineer or proprietor or legal adviser

Answer: _____

7. What is the name of the company that you work for/own/are a director for etc. ?

Answer: _____

8. How long have you being employed by this company ?

- a) less than 1 yr b) bet 1-2 yrs c) bet 2-3 yrs d) bet 3-4 yrs e) more than 4 yrs

9. Have you been employed by this company(the director for the company) before it located in this Office Park?

- a) yes b) no

10. If the above answer is yes, then in which general area did you work in previously?

- a) Durban's city centre/CBD b) Berea c) Pinetown d) other (state) _____

11. How do you travel to work?

- a) by car b) lift club c) mini-bus taxi d) public bus e) firm's bus f) other _____

12. If the above answer is a) then is the number of parking bays sufficient?

- a) yes b) no

13. How do you travel back home?

- a) by car b) lift club c) mini-bus taxi d) public bus e) firm's bus f) other _____

14. How long does it take you to reach work?
a) Less than 10 min b) bet 10-20 min c) bet 20-30 min e) bet 30-40 min
f) more than 40min

15. What do you do during your lunch break?
a) stay in the office b) run errands (please state)eg. visit the bank, do shopping. _____
c) meet clients e) other _____

16. If the above answer is **b**) then state the general area in which the activity takes place. For example in the Berea, at the Pavilion , in Verulam, in Phoenix, La Lucia Mall
Answer: _____

17. Why did your firm decide to locate into this office park? _____

18. Did the choice of location result in travel grants/ increase in salaries or company vehicles being provided to employees? _____

19. Did any employees leave work/quit because the location was inconvenient to them? (if yes, then state the number of employees) _____

20. Where was the firm located previously? (please state if this location is the firms first location in Durban) _____

21. Do you travel to meet clients or attend meetings (please state *where*, and the *number of times* per week/ month/ year) _____

22. Do you work after hours?(if so please state the number of *times* per week/month) _____

23. How has the Office Park environment been advantageous to your firm and/or your employees and/or to you? _____

24. Do you have any comment on the office park environment the office park's location? _____

*****THANK YOU FOR YOUR TIME*****

APPENDIX

2

EMPLOYEES QUESTIONNAIRE SURVEY

This survey is being conducted by a student from the University of Natal-Durban whom is completing her Masters Degree in Town and Regional Planning. The information is being utilised for research purposes. All information would be treated confidentially. Please assist in completing the questionnaire.

Thank you for your assistance.

PLEASE CIRCLE THE CORRECT ANSWER:(and state the reason/s where required)

For example: I am a) happy b) not happy

1. Sex

- a) male b) female

2. What is your race?

- a) White b) Coloured c) Indian d) African

3. What is your age?

- a)below 25 yrs b)25-30 yrs c) 31-40yrs d) 41-50 yrs e) over 50 yrs

4. In which general area do you live? for example, Phoenix, Verulam, Umhlanga etc.

Answer: _____

5. State the nature of your job. For Example: receptionist or engineer or clerk or legal adviser

Answer: _____

6. What is the name of the company that you work for ? _____

7. How long have you being employed by this company?

- a)less than 1 yr b) bet 1-2yrs c)bet 2-3 yrs d) bet 3-4yrs e) more than 4 yrs

8. Have you been employed by this company before it located in this Office Park?

- a) yes b) no

9.If the above answer is yes, then in which general area did you work in previously?

- a)Durban's city centre/CBD b) Berea d) Pinetown e) other (state) _____

10.How do you travel to work?

- a) by car b) lift club c)mini-bus taxi d) public bus e) firm's bus f) other _____

11.If the above answer is a) then is the number of parking bays sufficient?

- a)yes b) no

12.How do you travel back home?

- a)by car b) lift club c)mini-bus taxi d) public bus e) firm's bus f) other _____

13. How long does it take you to reach work?

- a) Less than 10 min b) bet 10-20 min c) bet 20-30 min
e) bet 30-40 min f) more than 40min

14. How long does it take you to reach home?

- a) Less than 10 min b) bet 10-20 min c) bet 20-30 min
e) bet 30-40 min f) more than 40min

15. Did the location of your firm into this office park result in additional travel costs?
a) yes b) no

16. If the above answer *is yes*, then how did you accommodate the additional costs?
a) received an increase in salary b) company transport provided c) receive a travel allowance
d) bought/rented a house/apartment closer to work e) other _____

17. Do you work after hours?
a) yes b) no

If the above answer is *yes*, then state the number of times per week/or month _____

18. Do you travel to meet clients?
a) yes b) no

If the above answer is *yes* then state where (for eg. Pinetown) and the number of times per week/month/year. _____

19. What do you do during your lunch break?

- a) stay in the office b) run errands (please state)eg. visit the bank, do shopping. _____
c) meet clients e) other _____

20. If the above answer is *b*) then state the general area in which the activity takes place. For example in the Berea, at the Pavilion , in Verulam, in Phoenix

Answer: _____

21. If the answer to question *19 is a)* then why do you stay in the office? You may circle more than 1 answer

- a) prefer to stay in the office environment b) no transport c) public transport is time consuming
d) shops/banks are to far to travel too e)inefficient public transport e) other _____

22. Do you enjoy working in the Office Park Environment?

- a) yes b) no

If no, then where would you prefer to work (in Berea, Westville etc.) and why?

23. Do you feel safe working in the office park environment?

- a) yes b) no

If *no* then state why _____

24. Has the opening of The Square improved your work environment?

- a) yes b) no

If the above answer is *no*, then please give a reason. _____

25. Do you have comments on your company's choice of location into the office park? _____

*****THANK YOU FOR YOUR TIME*****

List of Appendices

Appendix 1

Questionnaire for employer

Appendix 2

Questionnaire for employees

Appendix 3

Case study on South African company law

Appendix 4

Photographs

APPENDIX

3

Appendix 3

Case study in support of Company Law

To emphasize the distinction between a company (on the one hand) and its owners (shareholders) on the other, the following summary of a decision of the Appellate Division¹ in Dadoo Limited v Krugersdorp Municipal Council² is useful.

Under certain legislation in force at the time (in the Transvaal), Indians were prohibited from owing land (immovable property) in the Transvaal. In 1915, a company registered under the name of “Dadoo Limited” was formed, with two Indians as the sole shareholders (owners) of the company. This company then purchased certain land in the Transvaal. The Krugersdorp Municipality, none too happy with this situation, approached the courts for an order declaring the sale to be in breach of the existing legislation.

In refusing the application by the Municipality, the court held, per Chief Justice Innes, that “[a] registered company is a legal persona distinct from the members who compose it”. Since a company had no race, the existing legislation did not apply, and prohibit Dadoo Limited from owing the land.

¹ Highest court of Appeal in South Africa (now the Supreme Court of Appeals)

² 1920 AD 530

APPENDIX

4

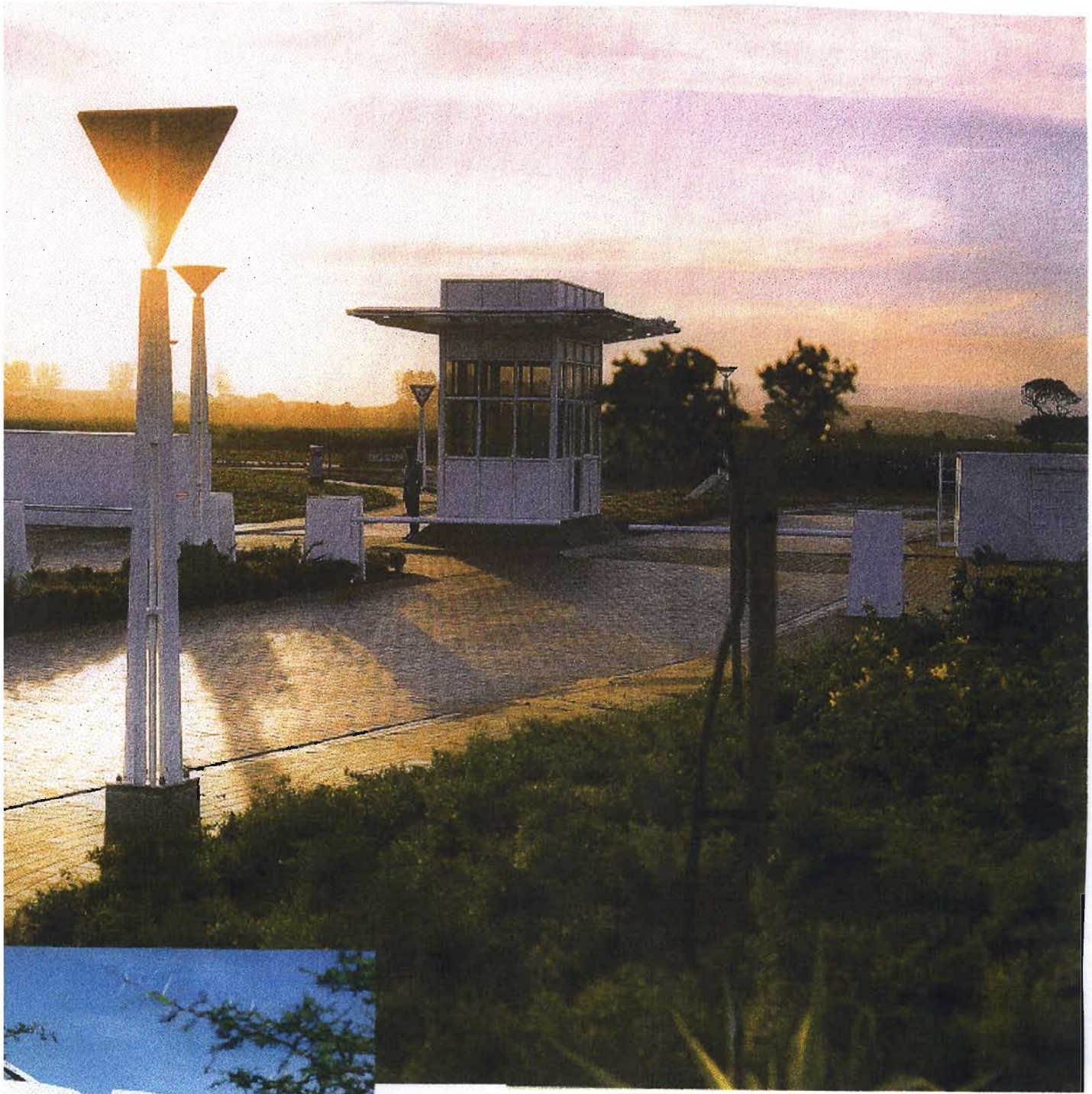
Photo 1a: Views to the east of the office park

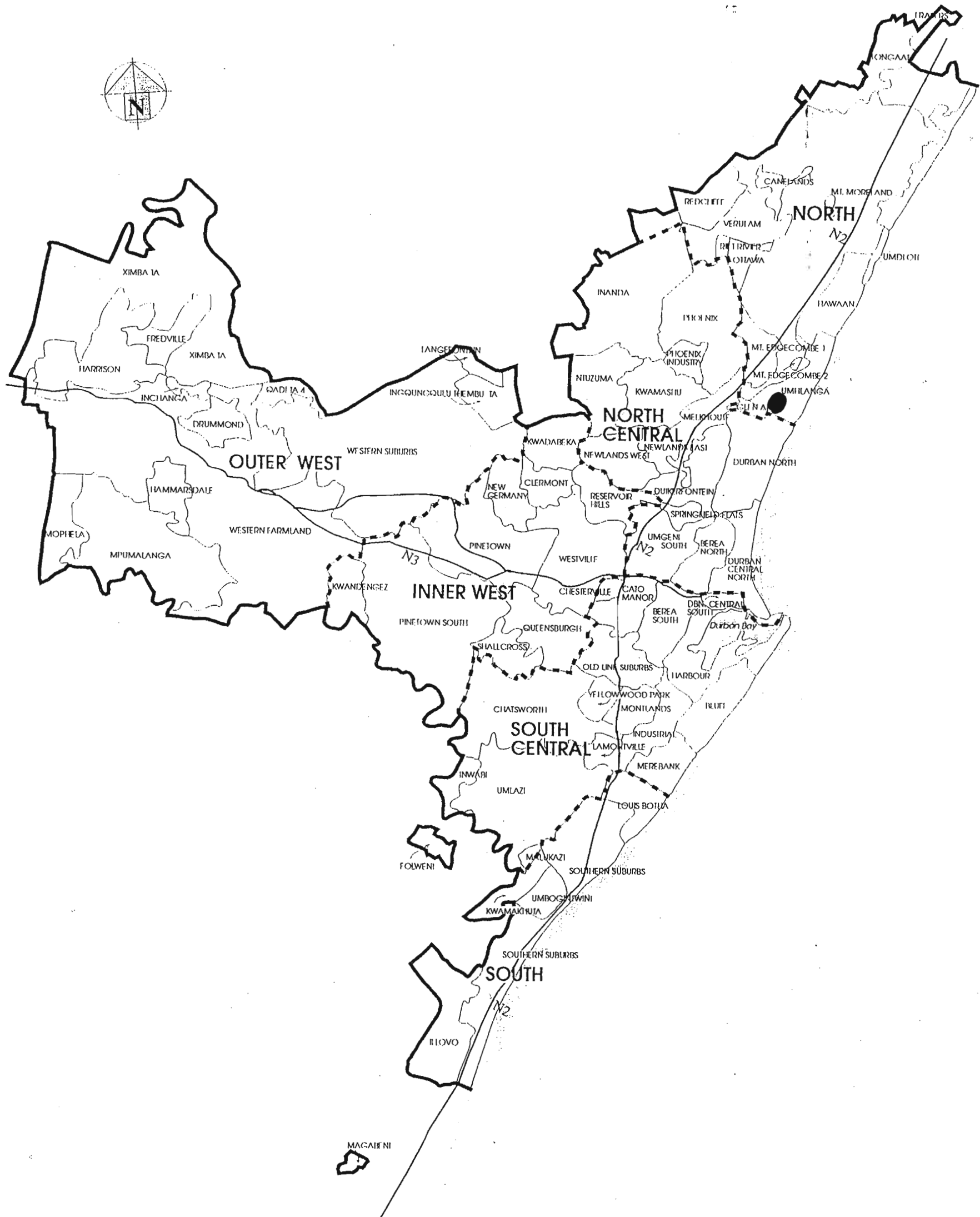


Photo 1b. Views to the south east of the office park



o Ic : Views from the buildings of the office park



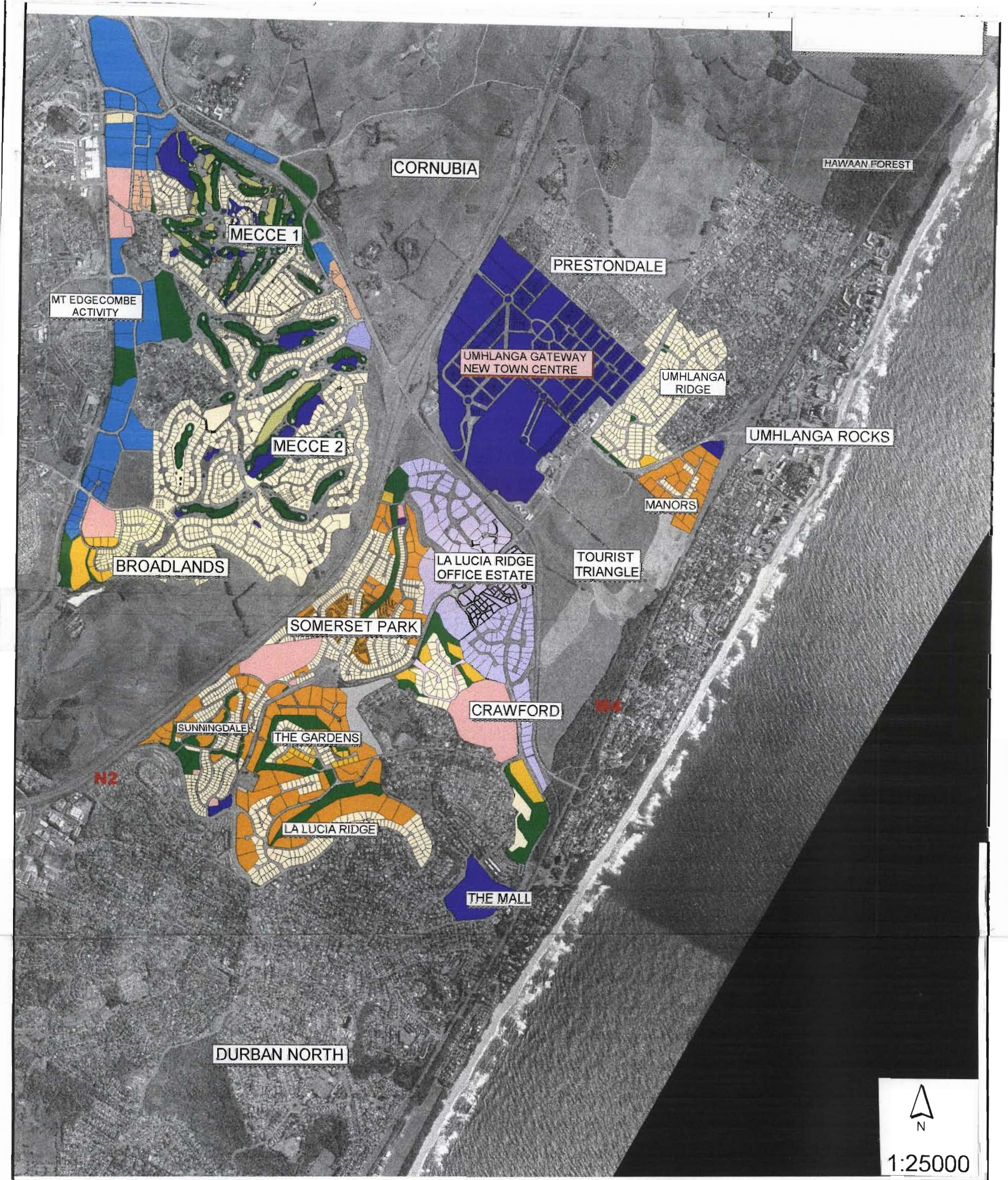


Map not to scale

- THE SITE
- Metropolitan Boundary (January 1996)
- - - Metropolitan Transitional Substructure Boundary (January 1996)
- Community Boundary
- Roads

DURBAN METROPOLITAN AREA





TITLE: BUS STOPS THAT SERVICES THE PARKS

1:3500

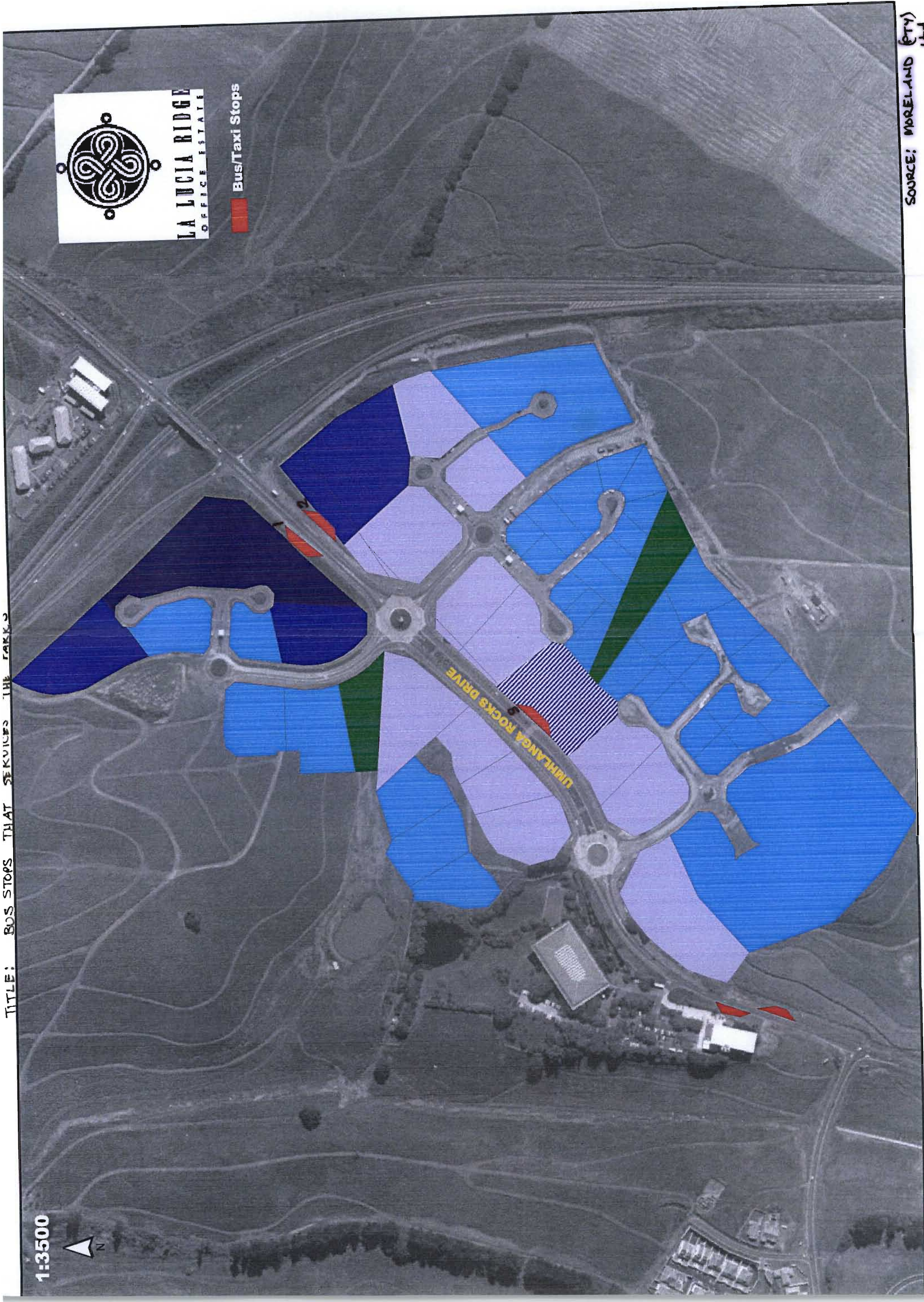


Bus/Taxi Stops



UMHLANGA ROCKS DRIVE

SOURCE: MORELAND (PTY) LTD





ENVIRONMENTAL LAYOUT OF THE OFFICE PARK

MAP 5

