

The Assessment of the Relationship between Spatial Layout Design and Social Cohesion within Gated Communities. Case Studies of Zimbali Coastal Resort, Kindlewood Estate and Izinga Ridge.

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Social Cohesion within Gated Communities. Case Studies of Zimbali
Coastal Resort, Kindlewood Estate and Izinga Ridge.***

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ABSTRACT

There has been an apparent rise in gated communities on a global scale from the United States of America, Europe, Asia, and within Africa. Gated communities are seen to be a popular development used for residential developments, for those who can afford it. Within the South African context, there seems to be the argument that gated communities contribute to a better lifestyle, and there are numerous positive and negative aspects regarding the development of gated communities (Landman, 2012).

It is understood that there are an increasing number of gated developments attracting members of the high-income groups as literature shows that the wealthy seek out privacy, luxury and security. There is a need to research and understand the social dynamics involved in this phenomenon and to understand whether the layout within these communities influences the social cohesion within them, as it will be influenced from a planning perspective. This research could prove vital in understanding the social dynamics of gated communities by understanding whether planning is a primary influence on these developments or those who invest in them.

The aim of the research was to assess the relationship between spatial layout design and social cohesion within gated communities, using the case studies of Zimbali Coastal Resort, Kindlewood Estate and Izinga Ridge.

The theoretical and conceptual aspects which informed the research were those of New Urbanism/ Smart Growth, New Urban Agenda and the Seven Qualities of 'Responsive Environments'. These theories were used to understand urban development and served as reference points to measure the gated communities of interest within the research.

From this, the literature speaking about the gated community topic was discussed and outlined within the research. This literature outlined the understanding of the gated community concept, the understanding of how this gated community development type came to be and its popularity from an international and local perspective. Understanding of the different types of gated communities was outlined within the study, as well as the aspects and dynamics of an urban community and the social cohesion aspects.

The research methodology of the study proceeded with a qualitative approach which utilised site visits, interviews and documentation regarding the case study areas. The study areas and the findings of the study showed that although there were vast differences between each of the case study areas, there were also a few common characteristics.

The differences were that the development goals of each and the context of each development were different. There similarities were that there was no unauthorised access to the gated communities by the public and that the facilities within were solely for the residents within. The provision of social facilities was found to be the means for promoting social cohesion within the developments. The hypothesis of the study was thus proven as the spatial layout design affected the social cohesion within the gated communities under study.

DECLARATION

COLLEGE OF HUMANITIES

DECLARATION

I, Vitesh Mohunlal, declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a. Their words have been re-written but the general information attributed to them has been referenced.
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This dissertation titled 'The Assessment of the Relationship between Spatial Layout Design and Social Cohesion within Gated Communities. Case Studies of Zimbali Coastal Resort, Kindlewood Estate and Izinga Ridge' is my own work.

Student: Vitesh Mohunlal

Supervisor: Dr. K. Mchunu

Signature: _____

Signature: _____

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LIST OF ACRONYMS

CABE:	Commission for Architecture and the Built Environment
CNU:	The Congress for the New Urbanism
CSIR:	The Council for Scientific and Industrial Research
DAC:	Department of Arts and Culture
EIU:	The Economist Intelligence Unit
IFA:	Independent Financial Adviser
LBFE:	Likweti Bushveld Farm Estate
MKWE:	Mount Kenya Wildlife Estate
MLUI:	Michigan Land Use Institute
MWE:	Marlothi Wildlife Estates
NCVS:	National Crime Victimization Survey
OHCC:	Ontario Healthy Communities Coalition
THD:	Tongaat-Hulett Developments
US:	United States
WES:	Wildlife Estates Scotland
WHO:	World Health Organisation
WWF:	World Wide Fund
ZEMA:	Zimbali Estate Management Association

CHAPTER ONE: INTRODUCTION

1.0 THE RESEARCH PROBLEM

Due to the increase of gated communities, there is a need to understand the social dynamics, specifically the behaviour, attitudes and interactions within gated communities and whether or not their layout design has an influence on these aspects. In Durban, KwaZulu-Natal, the studies conducted focus on the external implications of crime and the segregation of Muslims within gated communities (Taleb, 2005). Other studies focus on the external factors of the privatisation of public space (Ramoroka and Tsheola, 2014) and the reasons for crime because of gated community developments (CSIR, 2003; Landman, 2004; Breetzke, Landman and Cohn, 2014). Lastly, studies have been conducted which outline the characteristics and benefits of estates on the environment (Ballard and Jones, 2012). What this study aims to achieve is an understanding of whether or not these gated communities constitute social communities in the first place, and if so, whether or not the planned layout design has a direct effect on the social cohesion of gated communities. The study also aims to understand the issues found with the study, whether these issues are planning-related and, if so, what solutions are possible to avoid these issues from a planning perspective.

1.1 AIM, OBJECTIVES AND RESEARCH QUESTIONS

1.1.1 The Research Aim

The aim of the research is to assess the relationship between spatial layout design and social cohesion within gated communities. The case studies of the Zimbali Coastal Resort, Kindlewood Estate and Izinga Ridge are used.

1.1.2 The Research Objectives

The research objectives can be outlined as follows: -

- To determine how spatial layout designs of gated communities affect the social cohesion of the community living within the gated precincts.
- To determine the layout and design principles used in gated estate developments.
- To determine whether a sense of community and a sense of identity is promoted within gated communities through the spatial layout.
- To determine the influence of estate management on spatial layout aspects within gated communities.

1.1.3 Research Questions

The research questions can be outlined as follows: -

- How does the spatial layout of the gated communities affect the social cohesion of the community within?
- What layout and design principles are used in gated estate developments?
- Is the sense of community and sense of identity promoted within gated communities through the spatial layout?
- What influence does the estate management have on the spatial layout within gated communities?

1.2 THE RESEARCH HYPOTHESIS

Spatial layout design affects social cohesion in gated communities.

1.3 MOTIVATION FOR THE STUDY

There has been an apparent rise in the number of gated communities on a global scale, from the United States of America, Europe, Asia, to within Africa. For those who are able to afford it, gated communities are seen to be a popular development used for residential developments. Within the South African context, there seems to be the argument that gated communities contribute to a better lifestyle. There are numerous positive and negative aspects with regard to the development of gated communities (Landman, 2012). These developments are also seen to promote segregation as well as to reflect a lack of social cohesion within communities (Tanulku, 2012; Almatarneh, 2013; Ramoroka, 2013a, 2013b). Gated communities are thought to promote a special and different lifestyle, as well as to reflect a level of prestige when residing within them (Tanulku, 2012; Almatarneh, 2013; Hapsariniaty, Sidi, and Nurdini, 2013; Ramoroka, 2013a, 2013b; Kovács and Hegedus, 2014). There is also the issue of community connectedness not being properly implemented and promoted in the development of gated communities (Aggarwal, 2007; Hampton and Heaven, 2016).

In KwaZulu-Natal (KZN), gated communities and up-market Sectional Title complexes seem to be the first choice of wealthy buyers, according to Wassenaar (2010). Wassenaar (2010), of Seeff Dolphin Coast/Ballito, states that:

“The fact that most of the high value suburbs in KZN are actually gated communities indicates that they are preferred as investment options to traditional suburbs with stand-alone full title properties. The Zimbali Coastal Resort is the only estate/suburb within KZN

which features in the national top ten suburbs in South Africa; and with a mean value of R8.1m, it tops the KZN rankings by a long way” (Wassenaar, 2010; p1).

It is understood that there is an increasing number of gated developments attracting members of the high income groups as literature shows that the wealthy seek out privacy, luxury and security. There is a need to research and understand the social dynamics involved in this phenomenon and to understand whether the layout within these communities influences the social cohesion within them, as it will be influenced from a planning perspective. This research could prove vital in understanding the social dynamics of gated communities, by understanding whether planning is a primary influence on these developments or those who invest into them. The argument from the eThekweni Municipality is that these developments promote segregation, inequality and social imbalances. From Tongaat Hulett’s perspective as a developer, to address the issue raised by eThekweni regarding this development, they outline that gated developments are demanded at a market and planning level in terms of income groups, rental or ownership and race. The argument stated is that planning is from a realistic, practical element and a theoretical one. This is influenced by the location and contextual background of where the gated developments will occur and will vary for each development. For this study, the way in which these developments affect the social cohesion within gated communities will be assessed from a planning perspective, in terms of layout design.

1.4 JUSTIFICATION FOR THE CHOICE OF CASE STUDIES

The choices of the case study areas are due to the popularity and the prestigious stature of these gated communities. These gated communities have been developed at different timeframes and have all been classified as gated communities by the developers, however, they all have different characteristics in terms of the actual development and development goals. These gated communities are within previously developed popular urban areas.

CHAPTER TWO: THEORETICAL AND CONCEPTUAL FRAMEWORK

2.0 NEW URBANISM/ SMART GROWTH

New Urbanism is a term which is derived from urbanism which, in essence, is the term given to the interaction of people of cities and towns. It concerns itself with the preservation of the traditional design principles and elements, as well as the preservation of the environment in order to achieve a politically accepted system (Barnett, 2011). New Urbanism is, therefore, the term given to the approach through planning and development which has been based on the principles of how towns have been developed over the past centuries. This approach focuses on the urban design on a human scale. This involves streets being walkable, shops and housing being within close proximity, as well as the provision of access to public spaces (CNU, 2015). New Urbanism has the influence of creating a better future for everyone: Through the quality of life being raised and the standard of living being higher, people could have a better way of life. New Urbanism involves the redeveloping and developing of new compact towns (New Urbanism, 2016). Smart Growth represents the American vision of the New Urbanism movement from the aspects of architectural, social and political backgrounds. The same principles of New Urbanism apply as those which reflect a European pedestrian style of urban life (Kushner, 2002).

The principles of New Urbanism involve various elements which are applicable, from a basic structure to the whole community. There are ten core principles of New Urbanism that are implemented in city and community developments. These principles are:

- Walkability: where developments are within a ten minute walk from home to work. Developments are more pedestrian-friendly, encouraging slower-moving or no traffic at all, as well as more walk-ways for pedestrians, buildings being closer and car parking-lots and garages being hidden.
- Connectivity is the second principle, where there is the promotion of walking and traffic is dispersed through an interconnected street grid.
- The third principle is mixed-use and diversity which involves various types of land usage on sites such as offices, shops and homes. This is all within a neighbourhood, with buildings and street grid blocks. Diversity also refers to the inclusion of people with different cultures, races, ages and income levels within one area.

- The next is mixed housing, which is the zoning, allowing there to be a different range of housing types, together with different sizes and prices.
- Quality architecture and urban design is the next. This requires buildings to be of a pleasing aesthetic appearance and to cater for comfort to create a sense of place. The public spaces should be strategically placed within the communities. Overall, the community architecture should be attractive and appealing.
- Traditional neighbourhoods have distinguished centres and edges. Public spaces are commonly positioned at the centre. The quality of the public spaces is crucial and the designing of public space is classified as civic art.
- Increased density is the next element which is important, due to there being close proximity of buildings, shops, services and homes, which is more convenient and which makes the space more pleasurable to live in.
- Smart transportation is another principle which emphasises a more walkable, bicycle-friendly community, and a more effective form of public transportation which connects neighbourhoods and towns together.
- Sustainability is another element and this is crucial. There must be the promotion of a minimal environmental impact as a result of the development. Eco-friendly technology and energy efficiency should be promoted in development. Less usage of fossil fuels, as well as the promotion of local production is emphasised. A community should be encouraged to drive fewer vehicles and have more walkable areas.
- Quality of life is the last element which encapsulates everything and provides a better environment for people to live in, which uplifts the human spirit (MLUI, 2006; Rahnama et al., 2012; CNU, 2015; New Urbanism, 2016).

This theory is relevant to this study due to the nature of the development of gated communities, needing to be desired. These developments are only successful if they are desired as they are private developments and require the feedback and demand of a target market. Smart Growth is considered a policy framework that is utilised and New Urbanism is considered the set of guiding principles in

development (Poticha, 2000). Given the principles which have been outlined, New Urbanism is relevant to gated communities as they incorporate its principles in their developments.

New Urbanism has become a popular concept used in planning (Grant, 2007). Given the principles outlined, gated communities have the same development aspects and principles that are followed when being developed. Gated communities however, have a target group of those who are affluent (Grant, 2007).

2.1 NEW URBAN AGENDA

Habitat 3, October 2016, The New Urban Agenda set the updated development standards globally for sustainable urban developments. This is a commitment globally to promote social and cultural well-being whilst being environmentally conscious and protecting it (UN-Habitat 3, 2016; UN, 2016).

The leaders globally have committed to the development principles that are:

- The provision of basic services,
- Ensuring that all the citizens have equal access to opportunities,
- The promotion of actions to aid in cleaner cities,
- To strengthen flexibility in the impact and risk of disasters in cities,
- Address the issue of climate change through the minimising of greenhouse emissions,
- Respect and acknowledge the rights of migrants, refugees and the internally displaced people, regardless of their migrant status,
- The support of green and innovative initiative in improving connectivity,
- The promotion of accessible, green and safe public areas.

This is all achieved through the new urban rules and regulations which work with the urban development plans and designs, with municipal funding (UN-Habitat 3, 2016; UN, 2016). In relation to gated communities, the New Urban Agenda is considered an influencing factor in the development of these communities, and there is a need to consider these development principles when the aim is to create a sustainable urban development.

2.2 SEVEN QUALITIES OF 'RESPONSIVE ENVIRONMENTS'

When understanding the way in which people interact within an urban area, there is a need to understand the influences which make an urban area responsive in terms of the needs of people and their daily lives. There is a breakdown of seven qualities which allow an environment to be considered responsive and planned efficiently (Bently et al., 1985).

Bently, Alcock, Murrain, McGlynn and Smith, from the backgrounds of architecture and planning, devised an outline of the seven characteristics which make an environment responsive, as well as the elements and considerations which are used in developing an urban area.

The seven elements considered are as follows:

- The first is permeability. This relates to the accessibility of an area which consists of different levels of accessibility which will, in turn, be different levels of permeability. The more accessible an area is, the more permeable it is. This is a fundamental aspect in development as there is a need to consider which areas are more permeable than others, and how to balance this out according to the needs of the area.
- The second is variety. Variety refers to permeability, where variety is considered to be multiple and different land uses. If there is a great variety of land uses, then there will be a higher need for permeability within an area. Variety is constrained by the demand for the services or land uses within an area. For there to be effective and efficient development, the desirability of various land uses should be considered.
- Legibility is the next element. This is important, as there is a need to be able to understand the layout of an area and its means of legibility will determine how effective an area will be. With permeability and variety as the two dimensional elements, legibility allows the space to be considered as a three dimensional element. Legibility is established by means of layout design.
- The fourth element is that of robustness. Robustness is the flexibility of the various land uses and the ability to use one land use for more than one function. This provides for a more efficient and effective land usage and signals a higher quality of development.
- The fifth is visual appropriateness, which looks at the appearance of the entire development scheme in greater detail. This is important as it implies a more responsive environment when people are attracted to the aesthetics of a development. The response from people to places relates to how people interpret the meaning of the development, hence this is a crucial element in development.
- The sixth element is richness in development. Richness is the sense-experiences of a development. The design gives the user a specific feel for a development. Richness deals

with the minute details of the development, such as the visual and non-visual schemes used in the development, as well as the techniques and materials used in the construction in order to achieve a specific feel.

- The last element is personalisation. This involves the public participation which is necessary in order to have a successful development, as well as eliciting a personal response to the development (Bently et al., 1985).

This concept is relevant to the gated community concept as a measure of a community in order to achieve a successful environment and development and as such, will be utilised as a measuring tool to assess the gated community developments within this study.

CHAPTER THREE: UNDERSTANDING GATED COMMUNITIES

CHAPTER OUTLINE

Before proceeding with the concept of gated communities and the literature regarding the topic, there is a need to understand how the gated communities concept was created. This chapter outlines how the concept of gated communities has been derived and thereafter provides an understanding of the concept of gated communities. The chapter will also outline the reason for this concept to be popular in urban development from an international perspective and how it is being implemented. A review of how it has been defined, implemented, and incorporated in the South African context will also be outlined. The implementation aspects in terms of planning will be outlined and the type of gated communities will be reviewed in this chapter.

3.0 PAST TO PRESENT THEORETICAL BACKGROUND TO URBAN DEVELOPMENT

3.0.1 Modernism

The idea or concept of modernism is characterised by finding an alternative through the means of utopian or an enlightened manner, by means of knowledge and science (Harvey, 1989; Holston, 1998). It is for the betterment of mankind and it is considered a celebration for mankind to do what, in the Bible, is said that only God is able. Modernism is simply referred to as the celebration of modern art, economics, politics, technology and science by man (Berman, 1992). Modernism is considered positive thinking with a strong belief in the linear production and rational planning of what an ideal social order should be. This thinking also rejects the notion or ideology of irrational myths or traditions or religion (Harvey, 1989).

As Urbanisation increased during the Industrial Revolution, industrial capitalism brought about problems with regard to the social organisation. Due to the modernistic thinking, certain aspects of development would be disregarded. This then allowed some features to be considered within the planning procedure and development to proceed with a more technical process and from a modernistic approach (Sandercock, 1998). Most of the twentieth century has had this thought process in planning, which has been dominant in resolving the social issues being created by industrial capitalism (Holston, 1998).

Modernistic urban planning has, then, been used as a tool to change the conditions of the urban poor and to improve them. Planning has been used to share social benefits strategically with everyone. The thought process of the planners was that, in the future, there would be a society where there is less greed and scarcity. With this mind-set, modern planning aimed to reduce inequality and to provide a better life for all (Beauregard, 1996).

3.0.2 Postmodernism

Similar to modernism, postmodernism also refers to the change in the way people think and the way in which intellectuals, in the sense of the artists, theorists and teachers, have developed their modernist and post-modern mind sets (McGowan, 1991). Postmodernism is regarded as a movement in architecture which disregards the modernistic movement for the new, as modernism rejects traditions in art and architecture, to strive towards a new and better way of thinking and novelty (Keep, McLaughlin and Parmar, 2000). In the 1950-60s, the modernistic views were disregarded by architects to consider the elements of a classical form (Keep, McLaughlin and Parmar, 2000).

Modernism is a change of mind-set and thinking, while postmodernism is another change in that mind-set and attitude towards autonomy (McGowan, 1991). Postmodernism acknowledges the old and new and blends them and allows freedom and development (Garcia-Zamor, 2013). Postmodernism focuses on social equity through urban development that allows human nature and the environment to be equal, without there being any direct major impact on capital (Garcia-Zamor, 2013).

Urban development, through the postmodernist lens, focuses on development being decentralised and diverse, and emphasises local development. Postmodernism, however, does not focus on the economy and information, but more on the broad holistic spectrum, especially on a cultural basis (Allmendinger, 2001). Diversity is a crucial element in a postmodern perspective regarding urban development. Postmodernism considers various landscapes to be an expression of individual actions, values and behaviours of the people who create a locality. Postmodernism seeks to understand this relationship in order for urban development to be achieved accordingly (Pacione, 2005).

3.0.3 Globalisation

The concept of globalisation is merely the description of a world or global environment. Within this environment, there is an international movement of information, people, goods, capital and ideas frequently and freely (UNESCO, 2010). A strong driving force of globalisation is the economic drive, which has excelled by means of a few main characteristics. These characteristics are:

Firstly, the encouragement of investment and growth. This is done through the governments by privatising what was previously government land, services and industries and by liberalising the regulations to allow the economy to broaden its scope. The restrictions on government development policies by international banks and other agencies are lessened, in order to allow

international investment in goods and services (UNESCO, 2010 cited by Ranson, 2001). Secondly, there are numerous large-scale multinational corporations which have replaced governments as the primary delivery means which leads to total economic domination. Thirdly, there have been advancements in technology, especially in the sectors of transport, communication and manufacturing. Fourthly, there has been an increase in the ability to be globally connected, due to the rapid growth in communications technology. Lastly, due to the *per capita* income generated, there has been an increase in the consumption rate which leads to an increase in production and in turn, increases in consumption (UNESCO, 2010 cited by Ranson, 2001).

With this there is a direct impact of globalisation on urban development. This impact can be felt globally, nationally, and at a local level. From a global perspective there is the economic drive which has a ripple effect on other aspects of development through an increase in trade and production. This also leads to an increase in migration, as well as to an increase in organised violence which has an impact on the social and physical structures of the cities and the projects which are proceeded with, as well as the policies which are implemented (Newman and Thornley, 2000). There will, however, be a need for structural adjustment thereafter due to the World Bank's influence through economic aid at a regional level. This is also influence at a regional level through administration. There is also privatisation and decentralisation through business and private partnerships with the government. At a local level, the built environment is influenced and subsequently changes and evolves according to the urban context (Beauregard and Haila 2000). With this, there is a direct impact of globalisation on the social urban fabric, which leads to social imbalances and creates new forms of inequality within the urban structure which has social implications (Sassen, 1994).

3.0.4 Economic Neoliberalism

Neoliberalism is not specifically defined; however, it is considered a concept or idea, which refers to the growth of the economic liberalism from the 19th century (Boas and Gans-Morse, 2009). With this economic liberalism, there are policies which emphasise the free trade, privatisation, deregulation and intervention of government on the markets (Larner, 2000; Palley, 2004; Jessop, 2014). This allows corporations to invest freely and to develop in a manner which benefits them economically; but is only possible in both local and international markets if there is little or minimal regulation from government. The rich and poor have the same influences in terms of the regulations and even nations have their own comparative advantage (WHO, 2004). Government intervention is inefficient and the expenditures become too high (Palley, 2004; WHO, 2004; Jessop, 2014).

There are also numerous implications when there is a liberal market. One such is that distribution of income will become uneven, as well as the factors of production being influenced by supply and demand which is then driven economically in the free market. Factors of production are considered an implication, as they are reliant regarding supply and demand, so if there is no demand, there will be no employment; which leads to a higher unemployment rate in a country, increases poverty and creates an economic depression. Social and institutional forces have a great influence on the distribution of income. Institutional and social protection ensures that there is appropriate incentive for the labour force in order to promote more labour effort and entrepreneurship in order to elevate the employment rate (Palley, 2004; Jessop, 2002; 2014).

Neoliberalism has an influence over all aspects of development which includes the geography of an area and which then relates to urban development. Neoliberal projects, therefore, entail the development of political-economic spaces, as well as the implementation of policies which inform these developments. With the ideology of neoliberalism having been practiced in development, there have been numerous implications which have impacted on sustainable growth. The development which has occurred has been termed 'creative destruction', which is understood as meaning that there was unequal, socially regressive development with political volatility which influenced the spatial and institutional conditions (Brenner and Theodore, 2002). Neoliberal ideology believes that the free market will generate an equal allocation of investments and resources, however in practice, it has caused market instability and social segregation, which has resulted from the uneven spatial developments. These implications cause greater inequality and social insecurity, as well as destructive competition within the markets which leads to economic stagnation (Gill, 1995; Brenner and Theodore, 2002).

The South African government contributed to the sponsorship and support of the *Urban21 International Conference* in 2000 which discussed the implications of the idea of neoliberalism in cities. A report was compiled thereafter; however, they did not entirely resolve the issues which were raised during the conference. From this conference an approach was established in which cities are regarded as economic growth engines, centres for economic growth, political and social innovation, as well as the primary role-players in the international market competitiveness (Jessop, 2002; 2014). Some countries are classified as welfare countries that are inefficient and incapable of poverty alleviation. These should link social and labour market policies in order to provide new incentives and the ability to create new employment, as this will allow the informal or local economy to grow itself and aid in fighting the imbalances of social exclusion (World Commission, 2000). Through public and private partnerships there could be a drive to establish a stronger economy that would not rely on the government for its primary economic drive. Neoliberalism has its limits,

however, and to an extent it can be seen to be working effectively as it is supported by the World Commission. There are imbalances, of course, especially in developments which are influenced by political and economic influences which directly affect the urban development, thus leading to segregation and exclusion in a social context (Jessop, 2014).

With this there is the fear of the actual figures of crime statistics. In post-apartheid South Africa, there was a need to create prosperous and sustainable neighbourhoods, however the issue of crime gave rise to the idea of gated communities being created to provide a better quality of life (Steinberg, 2008). The idea of gated communities was promoted more by security companies who were private, hence the rise of walls and security devices entering the equation and becoming popular, as well as the false perception of safety from these (Singh, 2008; Vahed, 2013). It is argued that with all these measures put into place, there is the promotion of insecurity within these developments and this causes imbalances in the developments. There is a need to prove that these gated communities are not the solution to a sustainable community and do not promote social cohesion within them (Marks and Overall, 2015).

3.1 The Gated Community Concept

The term 'gated community' is an American concept. This is where developers of these types of housing developments aim to emphasise the community aspects, creating a social group of people within defined and enclosed boundaries in order to create a sense of community identity and belonging (Flint and Robinson, 2008).

There is limited access to this closed space or environment, as well as limited entrances. These environments are confined within fences or walls, and entrances are through gates, hence the term 'gated communities'. This causes a separate and different micro-society to be created within these walls. These micro-societies are then governed by their own rules and norms and they govern the usage of services and allocate resources within these walls according to the planning practices applied within these communities (Landman, 2012).

Within the context of South Africa, there is a debate about gated estates or communities within urban areas due to the impact they have within those urban areas. There is, however, substantial information backing both the positives and negatives with regard to this debate within South Africa. Positives about gated estates and communities are that they provide a safer environment, as they deter crime, as well as having a psychological impact on the fear of crime within a community (Landman, 2012). The negatives argue that, given South Africa's past suffered by apartheid and the spatial imbalances and displacement caused by it, these communities are promoted to avoid the

matter of segregation and a lack of integration within gated communities. The services are shared within gated communities, but they are not shared with those outside of the communities (Landman, 2012).

3.2 GATED COMMUNITY'S POPULARITY IN URBAN DEVELOPMENT

3.2.1 International Perspective and Context

From an international perspective, there is the perception that gated communities are safer and that they provide a better quality of life for those within. There is, however, the argument that these gated communities can also promote violence and crime. Once inside these communities, people are isolated and alienated from the rest of the public. This therefore raises suspicion and can create social imbalances (Bertrand, 2015). In Santiago, Chile, there has been an increase in home invasions, giving rise to gated communities becoming a popular alternative allowing residents to feel safer (EIU, 2015). This, however, leads to those who are unable to live within these exclusive communities, mostly due to affordability, feeling like they do not belong (Bertrand, 2015).

Gated communities have become a very popular concept which is favoured in urban development. Within the United States, as well as the United Kingdom, there has been an intense growth in these gated communities, and many people seek out these developments (Low, 2003; Atkinson et al., 2004; Breetzke and Cohn, 2013). From a global perspective, gated communities have become popular for numerous reasons other than safety. Reasons such as privacy, convenience, as well as exclusivity for those staying within them are among these. On a social level people also reside in these communities to segregate themselves from the public society, which links in with a desire for exclusivity (Wilson-Doenges, 2000; Low, 2001; Landman and Schönreich, 2002).

Globalisation of the economic markets has a direct influence on urban developments. Due to globalisation, there is a direct influence on the real estate markets; with a greater demand for investment in both local and international terms. With investment there is a greater need for luxurious developments in the residential and commercial aspects, and due to this higher demand, there is a greater incentive for developers to conceptualise these higher profiled developments, leading to the creation of gated estates (Sassen, 1991; 1994; Roitman, 2010). Gated communities are also seen as a spatial response of specific social groups such as higher income individuals, but also of middle income groups. The response to gated communities is affected by the rise in the general crime and the consequent increased need for security. Due to policy implications in the neoliberalism era, there is less expenditure on these aspects, hence the demand for these communities as they give more than just security and safety. These developments are stimulated by

the wealthy as well as those who strive for a better lifestyle; who feel the need for a higher social status, desire a reduction in the fear of crime, and those who want to achieve a sense of community (Roitman, 2010).

The growth of gated communities in Europe compared to that in the USA is different in terms of typologies and scales of development. European gated communities focus on the aspects of social mobility, diversification and historically influenced development. In comparison to the USA, the government avoids the financing and implementation of collective amenities. With this there is a high rate of social imbalance and inequality in the USA which leads to more social tensions, as well as to increased crime rates by comparison with the European developments (Aalbers, 2003).

Regarding a definition of what a gated community is, there is general agreement that it is typically a neighbourhood which is enclosed or has a restricted access through a limited number of gates which residents and visitors must utilise to gain access. The physical characteristic of a gated community is one which is enclosed by walls or fences entirely around the neighbourhood and one is granted access through a gate. The sizes of these communities vary and are found in any area, be it urban or rural. The creation of gated communities has been driven by the safety factor, which is one of the primary characteristics that they claim to provide. Through the restriction of traffic going through the community, there is a degree of safety provided for the pedestrians and children within the community. Due to the high security and limited access to the public there is a reduced chance of crimes being committed within the gated communities (Nasser, 2002; Le Goix, 2003; Hartman, 2016).

There are numerous advantages to these communities as they promote the utilisation of the public facilities that are located within the estates. However, these are restricted to the residents only. Through the interaction of the residents within the community, urban re-development is promoted. Due to the high-income levels of owners within the estate, living in the estates also becomes a status symbol. There are disadvantages to these gated communities or estates. There is no guarantee that security will invariably provide safety. If security is penetrated or disabled, it leaves the estate vulnerable. Due to the stature of these estates, they do become a target within an urban area. There are market differences in homes compared to those outside of gated communities as they are much higher in value than normal homes. There is also the implied psychology that gated communities are essential in an urban area to provide safety and security and that those who do not reside in them are not safe and secure (Real Estate ABC, 2002; Le Goix, 2003; Hartman, 2016). What is understood from this is that there is also an economic impact of these gated communities on an urban area. In relation to market values, the homes within a gated estate will still appreciate, even during a market downturn. Due to high income residents who are attracted to these gated communities, a physical

segregation and barrier is created between them and those in lower income groups, which then creates an economic-based social inequality.

In China, the banning of development in the form of gated communities has been proposed. The State Council of the People's Republic of China has recommended that these gated communities be banned from future development. The reasons for this are that the State feels that there should be public access to these areas. Allowing public road networks to be integrated into these communities' private roads would ease traffic congestion. This would also make better use of the land upon which these developments occur (Poon, 2016).

This would, however, create issues regarding the market values, especially of the homes within these estates. The restricted shared amenities within the estate, as well as the private roads are all factored into the market valuation of these homes within the estate. An unscientific poll was conducted in China among 20 000 people and the results showed that 75 per cent of the people did not support China's proposed new plan. It was established that 65 per cent of the people indicated that their main reasons for staying within these communities was due to security, as these communities provide safer environments to live in. Other reasons why people were against this proposal was that living within gated estates they enjoyed the extra land and amenities and, in social terms, this was seen as economic or urban mobility in terms of living conditions which people did not want to give up (Poon, 2016).

Kenneth Le outlined some of the pros and cons of living in gated communities. He commented that living in a gated community is a very tricky business, and that it is crucial for a buyer to know what s/he is buying into before committing to a gated community. Buyers must also consider that specific development styles are applicable to the whole community and that these styles are not the acquired tastes of everyone (Le, 2015).

The pros of these communities are that they offer features which the developers want to promote in a community. There are exquisite features; privacy, as well as exclusivity. Privacy and security have been a strong and primary focus or developmental goal for gated communities. People buy into these communities in order to have greater peace of mind through restricted access to their community, as well as constant surveillance. The exclusive luxury found within these communities manifests itself through the provision of a higher level of services and amenities; then there is the social status which is attached to this level of living (Le, 2015).

There are, however, many downsides to living in these communities. The homeowners within these communities pay a much higher homeowner's fee than the fees of those living outside of the community. Even though people buy into these communities for privacy and security, staying within

these communities promotes segregation and isolation. People would be segregated and isolated from the outside world and they could lose their sense of location and connection to those staying outside these communities (Le, 2015).

3.2.3 South African Perspective and Context

In the context of South Africa, there are numerous reasons why gated communities are becoming more popular in urban development. Firstly, there is a need to understand that these developments were not as popular to begin with, but that the situation changed dramatically with the increasing crime rates in South Africa (Gray, 2015). With the lack of infrastructure and basic service delivery in many urban areas, as well as the mixed nature of gated communities, there is now more incentive to invest in these developments (Gray, 2015).

Post-apartheid there have been drastic changes, especially in urban development. Due to the high levels of inequality there was a rise in the crime levels, especially due to the country going through the transitional phase of development and reconstruction. In the mid-1990s the levels of violent crime in South Africa were extremely high which led to people needing secure residences. This involved the creation of high walls and security devices (Marks, 2016). Professor Monique Marks, cited in Gray, 2015, states that there is an increased demand for these gated communities and their lifestyles. She also argues that these developments create an isolated community which undermines the social cohesion aspects, as well as those of diversity, inequality and crime. She further argues that there is no such sense of freedom found behind these walls, as 24-hour surveillance is conducted. Due to the high walls, there is limited or no visual access from outside the wall to inside the yard which poses as a security risk as no one is able to see within, thus there is no natural security (Gray, 2015).

With the increased crime rates, there are also other reasons for gated communities. One such reason would be that of profit gain for the developers, as well as investors, due to the pricing of these homes within these estates which starts at just below one million rand upwards, toward well beyond three million rand (Muller, 2015). The average household valuation in Zimbali Coastal Resort is R7 590 854 (Property24, 2010; Lightstone, 2015). After the collapse of the global housing market in 2008/2009, there has been an increase after 2011 in the housing market. Due to this, the prices of homes have risen, especially those in gated communities which are closer to amenities (Muller, 2015). Such an example is that of the estates which have been developed around the northern outskirts of Johannesburg that have been in demand as business hubs, due to there being less travel time. In South Africa, between the years of 2003 and 2008 there was seen to be an increase in the property value of 113 per cent in gated communities (McDonald and Arde, 2009). Rosebank is an example of an upper-income suburb where there has been a 178 per cent increase in the price

growth over the years of 2010 to 2015 (Muller, 2015). According to Lightstone Properties, the average age of the owners in gated communities is 50, however the average age of the buyers into these estates is 30-40 (Property24, 2010; Lightstone, 2015). In the context of KwaZulu-Natal, Durban, the estates located around Durban North, Mt. Edgecombe, Glenashley, Umhlanga Rocks, La Lucia, Kloof and the Hillcrest areas are in the upper price bracket of three million rand for homes, and base land prices start at R800 000 (McDonald and Arde, 2009; Property24, 2010; Muller, 2015).

Looking at the impact that gated communities have on both international and local people; for international tourists or investors coming into the country, there is the impression that the country is not a safe one and that there is a requirement for high walls and security fences in order to be safe in suburban spaces (Felson and Clarke, 2010; Mdyogolo, 2014). There is the argument that these high walls and security devices create a false sense of security in a country which has high crime levels (Leggett 2003; Altbeker 2007; Singh 2008; Samara 2010).

Gated communities in the context of South Africa have a similar reason for their existence and creation. In the context of South Africa, the idea of gated communities emerged in the 1990s, primarily to combat crime, as this was at its height in that era (Brown, 2015). Emerging from apartheid, people found that this was the only solution in order to keep themselves safer, by means of high walls and electric fences. These communities or estates, however, also create a new boundary between the rich and the poor, as only the wealthy can afford to stay in these luxurious estates (Landman and Schönteich, 2002; Brown, 2015).

The main focus and reason for the creation of gated communities is that of crime prevention. Gated communities have become an alternative and a solution for a crime-free environment. These developments bring together people with a common purpose and allow these people to interact with one another (Landman and Schönteich, 2002).

Bagaeen and Uduku (2010) state that the dynamics of large metropolitan areas influence separation and unequal developments. Gated communities are those which bring people together in one geographical location to share similar purposes such as fighting crime. By being in these gated communities, life is thought to be safer and to provide more security. Moreover, a shared identity and a sense of community are mostly initiated by those within the community (Bagaeen and Uduku, 2010).

With regard to gated communities having a sense of identity and community, spatial design and development within a gated community plays a fundamental role. Ensuring a secure and aesthetically pleasing environment provides the basis for social interaction. There is also the

informative process before buying into a community, whereby people are made aware of what activities take place within a gated community (Landman, 2004).

Roitman and Landman state that, with the transformation of space, gated communities represent a reordering of micro-society and space. This has the effect of reorganising rules, customs and norms which affect the allocation of shared services and goods. Accompanying this is the debate as to whether or not gated communities are seen to be a solution to increasing alienation in society, or a development type which creates exclusion, segregation and lack integration (Roitman, 2010; Landman, 2012).

Gated communities within South Africa are regarded and justified as a way to alleviate crime and reduce the fear of crime (Lipman and Harris, 1999; Landman and Schönreich, 2002; Lemanski, 2004; Jürgens and Landman, 2005; Durlington, 2006; Fabiyi, 2006; Harrison and Mabin, 2006; Landman, 2007; Kruger and Landman, 2008, cited in Landman, 2012).

The creation of these gated communities has had an impact on the surrounding developments. The traditional urban areas such as Ballito, Salt Rock and Sheffield Beach do not exhibit the demand or the growth compared to that of the gated communities which have been developed within these areas (Wassenaar, 2010). According to Wassenaar, (2010) people are attracted mostly to gated communities as these are regarded as safer and as offering better security against crime. Moreover, other amenities and services such as sports facilities, play areas, community centres and commercial facilities are also catered for within gated communities. In view of this, there is a need to consider how planning and layout design within these communities is effected because this influences the social cohesion within these developments. The creation of gated communities has a direct impact on the surrounding traditional urban environments as those areas become less and less desirable. The way in which gated developments are favoured compared to that of the developments outside of them is based on the market and the people's vote, which is influenced by how wealthy those people are (Wassenaar, 2010).

A study conducted by Landman (2002), a comparative study between gated communities in South Africa and Brazil, found that there were numerous similarities and differences between the two. In terms of similarities, gated communities are focused on security and privacy. The location of the estates play a role as it affects the type of estate being developed, for example, if such an estate is a reaction to crime, the layout is usually more closed, and the way in which roads are designed. The developments are seen to be focused on the urban periphery where there are larger undeveloped areas of land which allow unrestricted developments. Another similarity is that these estate developments are focused on the design elements that cater for security and on the use of natural

and manmade features to emphasise the quality of life. A specific architectural style and aesthetic features are used to provide a distinctive presence within a landscape. The last similarity showed that these estates have strict management and control regulations implemented (Landman, 2002).

The differences found in these estates are more related to the size and the type of facilities made available. In Brazil, these estates are far larger than the ones in South Africa, hence there are more facilities which are larger in dimension. The extent of these facilities also ranges in terms of what the developers are trying to achieve in terms of development within these estates. The South African estates are limited to the number of facilities such as private golf courses or horse-related facilities in equestrian estates. In Brazil, there are a number of different facilities which include schools (Landman, 2002).

Due to high crime rates, many people consider enclosed neighbourhoods or security villages the only option for safe-living in cities (CSIR, 2004). However, few pause to consider the longer-term impact of these developments, such as the social implications. Such impacts may result from the way in which these estates are developed, and from their layout design.

Given the nature of these private estates and the identification of them as communities, do these estates, in fact, provide a sense of community, and does the layout design have an influence on the social cohesion within them? Understanding the social cohesion of those within the gated community is important, as this affects the relations between individuals and how they function within that environment.

3.3 URBAN PLANNING

3.3.1 Traditional Planning

This type of planning involves outlining the spatial and structural elements by determining different land uses. This is an idea of planning practice which is simpler and which could be regulated or implemented with common barriers and boundaries. This was particularly favoured during the apartheid era where areas were demarcated according to function. This system however, did not promote social exclusion because the social and economic links were close. However, it did promote the segregation of classes and races (Adhvaryu, 2010; Ramoroka and Tsheola, 2014).

3.3.2 Modern Planning

Planning in the modern context has promoted segregation due to the economic situation of space and the market characteristics. Economic situations of space meaning: development is influenced by the land markets, and the type of development is influenced by the area in which it is in i.e. a developed and well established area would be more expensive and the types of development different than that of a less established and less developed area. The five models of spatial planning

are neo-traditional, compact city, urban containment, eco-city and gated community developments. These models are focused on due to the need for an efficient and sustainable development with minimal impact on the environment. With these types of models being promoted in developments, there has been a rise in the gated community developments that respond to the market characteristics that promote segregation on a social and physical level (Ramoroka and Tsheola, 2014). Modern planning seeks to promote compact development whilst promoting green developments through effective transportation and mixed land uses against a diverse background (Habibi and Asadi, 2011; Pacione, 2013). This is not happening in developments due to the market forces and spatial characteristics. This is due to developments being exclusive to certain income groups and not being shared commonly within a community, as well as not promoting walkable environments, mixed use developments or accommodating diversity, especially with regard to income status (Jabareen, 2006). Within South Africa, urban development post-apartheid has social imbalances which have been influenced by spatial development (Landman, 2002). With regard to public spaces in urban areas, there is no effective utilisation of these spaces by the community thus providing no advantage in creating a sense of community (Jacob and Hellstrom, 2010; Mandeli, 2010).

3.3.3 Gated Community Settlement Planning

The model of a gated community came about with the purpose of a special function, which is to separate different lifestyles, as well as to provide different levels of prestige and also to provide secure communities for people to reside within (Tanulku, 2012; Almatarneh, 2013; Hapsariniaty, Sidi, and Nurdini, 2013; Ramoroka, 2013a, 2013b; Kovács and Hegedus, 2014). Also, the idea of gated communities in contemporary developed countries is to conserve estates, as well as to provide a leisure environment to those who are able to afford it. There are however, other reasons such as ethnicity, religion and culture or actual geographic location, which people use as reasons to separate themselves (Almatarneh, 2013). This is practiced within towns and cities and within walled cities, to protect the people from intruders or neighbouring states (Kovács and Hegedus, 2014). As the concept or idea of gated communities became more popular, formerly public sections became blocked off and only became accessible to those who resided within the gated communities. With this came increased security measures; higher walls and more restrictions were created, in order not to prevent any external elements to enter the gated community without proper authority (Almatarneh, 2013; Ramoroka, 2013a, 2013b, 2014).

3.4 Gated Community Types

Due to the concept of gated communities not being a South African concept, there has been adaptation of the concept in the South Africa context. The initial types of gated communities were

broken into three categories being; lifestyle, prestige and security zone (Blakely and Snyder, 1997). The lifestyle types comprised of people with common interests sharing amenities. These lifestyle gated communities are considered resorts or urban villages. This type of gated community often has the characteristics of golf courses, retirement villages and new suburban towns. With regards to prestige, gated communities, as the name says, are luxurious, private and exclusive. There are few amenities shared with people as these communities promote privacy. These communities are for the wealthy and are well guarded and secure. The last type of gated community is the security zones. These types are more focused on the aspect of crime reduction and primarily involve the aspects of fences and controlled access to public domains (Blakely and Snyder, 1997). In the context of the gated communities within South Africa, all three of these gated community types have been retrofitted into the context of their proposed development. Gated communities in South Africa also encapsulate all three of the gated community types.

Regarding the design principles used within gated communities around South Africa, the design and layout aspects are always influenced by the terrain or the nature of the gated community (CSIR Building and Construction Technology, 2002). There are gated communities which do not have recreational facilities, such an example is the Port Zimbali Estate which strictly caters for those people who require security and seclusion. There are those with them and the most popular aspect of a gated community is a golf course, and this then leads to the design of the housing or tenure being designed and developed around the golf course. This is crucial to understand, due to the need to analyse the design concepts and understand how the layout is meant to function based on the estate type.

3.4.1 Coastal Estate

Seaside estates are normally developed with the aim of improving the health and wellbeing of the gated community, as well as providing desirable facilities and opportunities through development. With regard to coastal resorts, these typically have the characteristic of being in close proximity to the ocean. With this, there is an interest from buyers or investors in these gated communities (CABE, 2011). These developments are not only limited to the coastline itself, but are within the coastal strip which falls within the one km buffer strip along the coastline. There is the coastal zone which spans a 50km area over open ocean and land. Within this zone there are developments which are linked to one another. Such developments involve those that promote tourism. Coastal resorts therefore develop accordingly, in order to cater for tourists, as well as for foreign investors who seek vacation homes (Oxbridge Notes, 2012).

Plate 3.1: Coastal Resort View One: Zimbali Coastal Resort



Source: https://www.where2stay-southafrica.com/Accommodation/Ballito/Imithi_14,_Zimbali_Coastal_Resort,_Beach_Estate

Plate 3.2: Coastal Resort View Two : Zimbali Coastal Resort



Source: https://www.where2stay-southafrica.com/Accommodation/Ballito/Imithi_14,_Zimbali_Coastal_Resort,_Beach_Estate

3.4.2 Eco-estate

The origins of this estate type are attributed to Stanley Selengut, a civil engineer, in 1976. The first development of such a concept in an estate form was a 114-unit resort in Maho Bay Camps in the US Virgin Islands. The main ideology of the concept was to combine sustainable technology and principles and implement them throughout the development. This was implemented in Selengut's second development, Harmony Studios in 1976. Within this development there was the introduction of solar power, as well as wind power as its primary means of energy resource (Malek-Zadeh, 1996; Johnson, 2011; Adams, 2016). As part of the design, floor tiles made of slag, which is a stony waste matter from smelting, and recycled glass were used, as well as carpeting created from recycled plastic bottles. The roof-tops had solar panels, as well as a capacitor which stored the energy from the windmills. Another design aspect employed cross-ventilation, as well as heat-resistant windows and scoops on the roofs which allowed air or wind to flow into the building, reducing and cooling the temperature of the building interior. The gutter was designed to lead rainwater into tanks which were used for the toilet systems within the building. The interior finishings comprised recycled newsprint as wallpaper and motion detectors were used within rooms to switch the lights on/off to conserve power. Wallpaper is not a favourable material used as the glue used for it is commonly eaten by insects. As a whole, any building development within the area has to utilise organic materials in the construction of both the main structure and the interior materials (Malek-Zadeh, 1996; Adams, 2016).

Plate 3.3: Eco-Estate View One: Simbithi Eco-estate



Source: <http://www.cyberprop.com/showpropertySE219ZZ00005037.cp>

Plate 3.4: Eco-Estate View Two: Simbithi Eco-estate



Source: <http://www.seeffballitoproperty.co.za/results/new-development/residential/north-coast/simbithi-eco-estate/5/>

3.4.3 Wildlife Estate

With regard to wildlife estates, these are more sensitive to nature conservation than the other estates. The core elements and characteristics of these estates are the conservancy, as well as the management of wildlife and game. These estates go hand-in-hand with being eco-sensitive estates. These estates also display information on the species of animals and birds, as well as the indigenous flora. These estates promote conservancy to the maximum and allow the residents to have the unique experience of being one with nature. Within these estates, there is the opportunity to protect endangered species, as well as to provide a secure breeding habitat. Generally, within these estates, there is a total restriction on vehicle movement in order not to disturb the natural environment. There is also the promotion of walking and cycling around the estate to enjoy the scenery and the natural beauty. The estates promote outdoor activities which do not disturb nature (MKWE, 2016; LBFE, 2016; MWE, 2008; WES, 2016).

Plate 3.5: Wildlife Estate View One: Likweti Bushveld Farm Estate



Source: <http://www.ryden.co.ke/newsletters/mkwe-newsletter-sep-2013.html>

Plate 3.6: Wildlife Estate View Two: Likweti Bushveld Farm Estate



Source: <http://likweti.co.za/blog/live-in-harmony-with-nature-likweti-bushveld-farm-estate/>

3.4.4 Golf Estate

Golf courses are a popular entertainment attraction which can be found in some upmarket gated community developments. The well-managed courses and landscaping add to the aesthetics of the estate and manage the natural environment prior to the development. When buying in to this type of development, it is a lifestyle which people are buying into (Blakely and Snyder, 1997)

In essence, a golfing estate is built around a golf course. The surrounding erven (or plots) are developed according to the homeowner's specifications. The construction standards are high, as this kind of estate caters for the wealthy. These estates are developed around an existing sensitive

natural environment, and with a golf course, there is the ability to maintain the natural environment, as well as to add to the aesthetics of the gated community to promote a more natural and luxurious environment in which people live. There is a variety of indigenous flora and fauna within these developments so that people are able to live within a harmonious environment (Woodhill Residential Estate and Country Club, 2016). There is also a downside to having a golf course development, as there is a need to continuously treat the grass on the course as well as a high requirement of water needed to maintain the course (Jones, 2012).

Plate 3.7: Golf Estate: Golf Course within the Estate



Source: <http://www.golfresortssa.co.za/portfolio-items/zimbali-golf-estate-ballito/>

3.4.5 Equestrian Estate

Equestrian estates cater for specialised equestrian communities comprising of people who are horse owners. These estates vary in size as there is a large plot size requirement, as well as the type of activity required by the homeowner such as exercise yards, training fields, racetracks or courses and breeding paddocks (Fackrell, 2008; Griffith, 2014). These estates are specialised, as they have to provide the necessary equipment and facilities in order to maintain horses, as well as to cater for the needs of horse owners. Such facilities are boarding stables and training facilities and the size of the plots vary according to the owners' requirements. Recreational amenities within these estates include walking trails for the use of owners. The competition aspects involve facilities for spectators and external event areas, as well as the equipment required for sporting events of this nature such as jumps, barrels and gates. Some enthusiasts would choose to reside in these estates just as observers, enjoying the scenery and looking at the horses within the area of the residences and in the equestrian community. These enthusiasts are also catered for through the provision of basic amenities within equestrian estates (Fackrell, 2008).

The layout of these equestrian communities varies according to the usage of the homeowners within the estate. These also vary according to the availability of land and the actual topography of the

land, hence they would vary according to the positioning of the actual homes, so as not to compromise the grazing areas of the estate (Fackrell, 2008; Griffith, 2014).

Plate 3.8: Equestrian Estate View



Source: <https://www.gatedestates.co.za/results/estate/residential/hillcrest/kirtlington-park/87/>

3.5 Aspects and Dynamics of an Urban Community

3.5.1 Public Space

A public space could be classified as an area which is within the public domain. It's an area which promotes a sense of community and social interaction and recreational activities. It is generally classified as an area which is safe, well maintained, welcoming, which is designed with aesthetically pleasing ideas and free access to all (American Planning Association, 2016). Healthy public spaces are considered as essential tools to rejuvenate a community if they are well-functioning spaces (UN-Habitat, 2012; 2016). They are even able to economically jump-start a community through local recognition and production being promoted and considered in the development. Public spaces are important in order to create successful cities as they build a sense of community and allow people to interact socially with one another (UN-Habitat, 2012; 2016). Parks, streets, squares and other public spaces are considered as areas of wellbeing, since these areas can be used to express achievement

and aspiration. These areas also hold common meaning for everyone and they can reflect civic culture and political formation (Amin, 2006).

Public space is also commonly misinterpreted, as is the case in the development of gated communities due to the misinterpretation of the meaning of 'public' spaces not being what it is meant to be. This leads to poor planning, as these public spaces created within gated communities have restricted access where the public spaces within gated communities are only accessible to those residing within and not to the public. They are patrolled by security guards who only allow a specific group of people to utilise these spaces and this promotes segregation by means of income and class, or even culture (UN-Habitat, 2012).

3.5.2 Definition of a Community

With regard to the term 'community', there are many characteristics and meanings which attach to the term. The actual term 'community' is based on the Latin, *communitas*, which refers to the common rights of the people (Aggarwal, 2007; OHCC, 2008). Over the years, other aspects and characteristics which have been related to and associated with the term 'community' are;

- Common people, sharing similar interests;
- A small society;
- A distinct group of people; and
- Having a sense of group identity

(Aggarwal, 2007; OHCC, 2008).

These can further be broken down into sub-categories. First being a geographic community. This is where people share a common physical space. Secondly, there are communities where people share likeminded and common interests and there are virtual communities such as online networks created by people (Aggarwal, 2007; OHCC, 2008; Hampton and Heaven, 2016). Holistically, a community comprises of a group of people (Rissman, 2010), additionally people within a community share more than just the physical space, they also share an emotional, spiritual and psychological connection with one another (Block, 2009) and such a community is classified as an experience, as well as a place of connectedness among common people (McKnight and Block, 2011).

Within this connectedness, there are predominant characteristics which involve:

- Physical aspects, which are the geographically shared area among people, as well as the infrastructure created within the community;
- Its settlement patterns, as well as commercial and industrial sites;
- The demographics of its people, as well as the history of the community;

- The leaders and the cultures of the communities;
- The political and economic basis of the communities; and
- The social structures of the communities which also give an understanding of the attitudes and values which are the essence of the communities.

(Aggarwal, 2007; Hampton and Heaven, 2016).

3.5.3 International Perspective

With the widespread fear of crime, gated communities are more commonly favoured in developments. Due to the neoliberal development practices, there is more social imbalance and inequality in the urban fragmentation (Smets, 2009), and there is a need to assess the implications resulting from these developments in the urban landscape.

With regard to the dynamics of a community, there are numerous factors which are key in determining what constitutes a neighbourhood. Such factors include the image of the neighbourhood, its ability to create a sense of community, as well as the self-image or identity created. A study done by Mannarini et al. (2006) assessed the linkage between three aspects and how these created a community in Italy (Mannarini et al., 2006). The results of the study illustrate that there is a connection between a sense of a community and the image of the neighbourhood. Self-image and identity is created through the individuals' personal residences and their places within the community. Results show that there is a connection with a strong sense of community, depending on the positive or negative image of the neighbourhood. The positive neighbourhood is created through the existence of a stronger sense of community, with more interaction between people within a neighbourhood. A negative one is shown where there are people distancing themselves from each other, and this weakens the image of the neighbourhood as a whole (Mannarini et al., 2006).

With regard to the context of gated communities, the dynamics are different from those of an urban neighbourhood. With a closed environment, the dynamics change with regard to the way in which people network within them. There are other factors which influence community functions such as the size and the layout of the environment or neighbourhood (Sakip, Johari and Salleh, 2012). Sakip, Johari and Salleh (2012) conducted a study in Malaysia which assessed the sense of community within gated communities and non-gated communities. It was identified that there is a need to have certain factors which provide a sense of community within an urban development. Such factors are those of community relationships, the satisfactory feeling of staying within an urban development, a good quality of life feeling, and well-being. The results of the study illustrated there is a difference and influence of marital status, which affects the sense of community in both non-gated and gated

communities. In gated communities, there is a better sense of community between those who are married, compared to those who are not. However, there is a higher sense of community in non-gated communities compared to those of gated. In both cases, results show that those who are younger have a greater social sense of community than those who are older in both gated and non-gated communities (Sakip, Johari and Salleh, 2012).

A study conducted within Australia reviewed the concepts of gated communities as it is seen to be a common community development all around the world. Kenna and Stevenson (2013) conducted a study on the meaning of community to residents within gated communities. It was argued that a sense of community cannot be delivered through private developments. It is illustrated through the study that the way in which people are influenced and how these estates are created is through the private governance of the estates. With the creation of these estates by private developers, private governance is created which is commonly referred to as the homeowners or community association. Privatisation of a development and the development of a community are considered to be opposite phenomena (Kenna and Stevenson, 2013). Romig (2005, cited in Kenna and Stevenson, 2013) argued that a sense of community within gated communities is based on that of common interests and income levels. Regarding this study, there is evidence that the gated community has been advertised with the promise of social integration and the promise of a sense of community. However, none of that has been experienced by those within the community. The internal governance does not have any direct influence on the social aspects of the community, however, due to the approach of the limited government structure in place, there are implications for the social aspects of the estate. The focus of the estate development serves more as an economic incentive, rather than any serious attempt to promote social cohesion. Social dimensions within the estate rely on the aspects of the provision of physical structures being developed in the community, as well as on the governance structures (Kenna and Stevenson, 2013).

With regard to the social aspects of the gated communities in Europe compared to those of the USA, these are entirely different. In the USA, there is no emphasis on the social aspects of gated communities. There is, however, more emphasis on the safety aspects, as well as the economic value of the properties, whereas in Europe, there is a focus on social mobility as well as on addressing the imbalances of the social inequality (Cameron and Field, 2000).

3.5.4 South African Perspective

In South Africa, there are cases where, due to the popularity of gated communities, there was a need to assess the impact and the dynamics of these communities.

Talbot (2015) assessed the dynamics within gated communities as well as the implying factors. The study, conducted in seven gated estates within the Gauteng area, illustrates that there are numerous factors which affect the dynamics and social aspects within gated communities. Firstly, these estates are considered to promote discrimination, segregation and inequality. The factors which influence the dynamics are race, social class and culture. It was seen that different racial groups want to associate with their neighbours, while the rest prefer to be more private. It is common that black residents prefer to socialise with other black residents rather than with the white residents. Those who shared common cultural beliefs tend to have more social connection than with others. There is also the issue of social class being evident, where certain individuals believe themselves to be more powerful than others, as well as better (Talbot, 2015).

In another case of gated communities in Gauteng, gated communities are considered to be voluntarily excluded from public services, amenities and interaction (Landman, 2008). The research conducted by Johannes (2012) illustrates that social homogeneity is evident within the Featherbrooke Estate. The common factors within the estate of Featherbrooke are that the residents' cultural views, as well as income status and language background is the main cause of the social homogeneity. Another aspect of the dynamics of the Featherbrooke Estate is that of social exclusion. This is promoted thoroughly by the homeowner's association that governs the estate. The estate utilises the public services and amenities, however it restricts outsiders from utilising these services (Johannes, 2012).

In an eco-natural estate, the dynamics are different and tend to focus on the aspects of creating a naturally friendly and aesthetically pleasing environment for people to live in. The concept focuses on creating more of an African concept of a gated community. People are therefore required to behave and engage with the environment in a different and more responsible manner (Ballard and Jones, 2011). This type of development is considered more positive in terms of the social development of South Africa. Considering the natural environment and by learning to love it and appreciate its natural beauty, could be a solution to address the social and racial imbalances of the country (Gibson, 1975). These types of developments have aims in development other than just those of creating a safer and secure environment. Due to people being more environmentally conscious, there is a greater interest in these developments. This has become a marketing tool. Within these developments the common or shared interest is that of being closer to nature and living in harmony with it. These estates also serve to conserve and rehabilitate the natural environment and this provides a common interest for people to invest in these estates (Ballard and Jones, 2011). The promotion of interaction through common interests implies better social cohesion within the estate.

3.6 Understanding Social Cohesion

3.6.1 A Definition of Social Cohesion

The concept of social cohesion looks at the human relations characteristics of a society. These characteristics relate to the connections between social units or the individuals, groups and associations (Berger-Schmitt, 2000). The Federal Ministry for Economic Cooperation and Development (2012) outlines that social protection as a key aspect in sustainable economic development and success reduction in poverty. Social cohesion is a primary focus of social protection and in the aid of poverty alleviation as there is a need to strengthen bonds between people in order to promote stability and peace within a country.

Social cohesion is defined as being used to describe social relations and is used to define cooperation and unity between different groups and individuals in a society. It also looks at the group's and individual's outcomes from an economic, social and political perspective. The concept allows the connection between social relations and the notion of wellbeing and equity to be understood (The Federal Ministry for Economic Cooperation and Development, 2012).

The aspect of social cohesion in South Africa has only been focused on post-2012, due to there being a need to develop more sustainable communities which involve the aspects of social cohesion. In 2012, the Department of Arts and Culture (DAC) hosted a summit and developed the social cohesion and nation-building strategy which was then adopted the government (DAC, 2012). Since this adoption there have been two more summits held in 2014 and 2015, which discussed the topic of social cohesion in both the public and private sectors (Palmary, 2015).

The subject or the ideology of social cohesion originated from the concept of social capital (Putnam, 2001). Social cohesion is only considered to be one aspect of social capital that focuses on the idea of how people coexist with one another within a common geographical area in a community (Kawachi, and Berkman, 2000). Social cohesion does have drawbacks, for example, that of gangs and mafias which have high social cohesion, yet exert a negative influence (Greeley, 1997). A positive example would be nation-building, such as the way in which South Africa uses social cohesion in context thus promoting sustainable developments. Social cohesion, from an international perspective according to Palmary (2015), is not used in nation-building and is not something which the government can or should promote as it would be considered as influencing how people should be. Within the context of South Africa, the term social cohesion relates to nation-building hence the adoption of the legislation in 2012 by the DAC (Palmary, 2015).

Even with the concept of social cohesion being a recent ideology, there are core characteristics which relate to a cohesive urban space (Pinto, 2015).

These characteristics can be listed as:

- Ensuring that the network of public spaces is always easily accessible;
- The provision of facilities in locations in which activities take place, that promote strong social and economic dynamics in order to attract people to these locations;
- The provision of a variety of amenities and a variety of urban functions in order to promote equal access to goods and services;
- The attraction and accommodation of diverse cultures, age groups and social classes; and
- Allowing people to create their own image and presentation of themselves.

(Pinto, 2015).

With regard to gated communities and the status of social cohesion within them, it is questionable whether they promote social cohesion or exclude it. Libertun (2007) states that gating a community promotes social cohesion in various contributing aspects. Such aspects include the provision of a variety of enclosed neighbourhoods and various income groups to create managed areas in which it is safer to live. There is less crime, there is protection of valuables, as well as an environment which restricts and prevents unwanted entry. There are privately controlled public areas, and people buy into and conform to a lifestyle of common interests (Libertun, 2007).

3.6.2 Social Cohesion in Gated Communities

A study by Addington and Rennison (2013) elaborates on the effects of gated communities and on the aspects of crime within urban areas within America. Their research is based on the US National Crime Victimization Survey (NCVS) and the US Census Bureau's American Housing Survey; these gated communities are seen as safer areas and it is felt that incidents of crime are minimal within these communities. However, there is the issue that these communities give rise to other crimes. These communities evidently push crime away from these neighbourhoods to less secure areas, but also contribute to the rise of other crimes such as domestic violence, bullying, as well as violent assault. Violent assault has been an issue raised, where there are cases of people being trapped with the assaulter within the confines of the 'secure' community. Vandalism is also brought up as an issue due to those gaining access to the estates or people who just cause trouble (Addington and Rennison, 2013).

A study on western US metropolitan areas, discussed by Le Goix (2005), looks at the social aspects of gated communities and the social inequality and segregation. The study focuses on the census data between the years of 2000 and 2010, focusing on ethnicity, economic status and age. The study shows that gated communities contribute to social segregation on a spatial level, where people from different racial backgrounds are separated and become focused in other areas due to gated

developments. The spatial structure of urban areas is influenced by the locality of the area and the demographics of the area (Le Goix, 2005). This area has a diverse group of people from different racial backgrounds, which is due to territorial activity between the different racial groups being predominant, which influences how people situate themselves within urban areas. Gated developments tend to attract people from one racial group to reside within them, and this results in spatial segregation and fragmentation. (Le Goix and Vesselinov, 2015).

Post-industrialism refers to an age where development has moved away from heavy industrial means to generate and drive the economy of a country. It refers to a change in mind-set and a new era of information being created (Liagouras, 2005). Due to the post-industrial changes, there have been gated community developments with the spatial changes which were spurred on through the era of Modernist thinking. Within China, gated communities have been increasing in number as a means of housing reform. This leads to social exclusion and segregation, and has often been criticised by western comparisons. These developments in China, however, follow political, architectural and legal traditions when developing these communities. These developments are not profit-driven and market-led, rather, they are residentially-driven by the needs and wants of the people, as well as by a top-down approach from government in which development thus commences. Within these developments there are amenities which are shared with those who are from outside the community and these are open to them. These developments are viewed more as a city concept on a larger scale and are considered as conforming more to a dynastic concept of territory, which is the implied context of gated communities (Li, Zhu and Li, 2011; Chen, 2012).

Due to globalisation, there is a direct impact on the economic, social, demographic and cultural aspects. Globalisation links cities together which, in turn, has implications for implicit social characteristics of other cities (Kearney, 1995).

Research done by Taleb (2005) shows that the implications on a social level of gated communities within Durban, South Africa, have been greatly influenced by its apartheid history. Racism is a large issue within the country and is portrayed through development, or rather the diversity of races and cultures within urban developments. The economic status of individuals has been seen to be another important and influential factor based on the way in which people are treated. Black people are stereotyped as people who are less likely to stay within suburban areas. White and Indian people are classified as those who would stay in suburban areas, but, through the means of mortgage and real estate, there would be underlying factors put in place to segregate the racial groups (Taleb, 2005). Living in gated communities is seen to be a class or status symbol, indicating that one is part of the middle to high income groups who are able to afford to stay in these communities, especially around the Umhlanga area. These communities do, however, have a diverse group of people from

different backgrounds who share no direct common interests but, who, due to the desire for status, reside within these communities (Taleb, 2005).

A study conducted by Breetzke, Landman and Cohn (2014) regarding whether or not gated communities are safer than staying in a non-gated community in Pretoria, South Africa, showed that there is a higher number of crimes committed within gated communities in comparison with non-gated communities (Breetzke, Landman and Cohn, 2014). Gated communities also shift crime to areas which are proximate to these developments or to other areas. This result shows that there is a false impression created that gated communities are safer than non-gated communities from both a South African Perspective and an international one (Breetzke, Landman and Cohn, 2014; Le Goix, 2015).

CHAPTER FOUR: RESEARCH METHODOLOGY

The following outlines the methodology that is used in the research. It outlines the approaches for the study being conducted, the sources of data and data sampling that is used in the research. The analysis method will be discussed and a tabulated plan of action for the study will be outlined.

4.0 RESEARCH APPROACHES

The approach taken for this study is qualitative methodology. This is due to the nature of the study, which focuses on people and understanding the development steps concerning gated communities and how people are considered in these developments.

This study could only be qualitative as there is no measuring of data to be done. The information that is to be obtained is to understand the planning aspects concerning the case study areas. Aspects regarding the planning are to consider the planning principles, and the development and implementation of these principles to understand how it affects the gated community within in terms of the people residing within. This form of research approach is used to compare the case study areas that are of focus and understand the similarities and differences among these gated communities.

With regards to the information that is received through the research, a comparison and analysis of the results will be conducted. The comparison and analysis is done with regards to the layout principles outlined, as well as the social cohesion principles outlined. Furthermore, there is a comparison with each gated community study area.

4.1 SOURCES OF DATA

Both primary and secondary sources of data are consulted. Due to the nature of the study, information regarding the study areas will be acquired through interviews. Semi-structured (focused) interviews will be conducted in order to understand the physical layout aspects of these estates and the social aspects in relation to the influence of the estates on the individuals. Layout design information is ascertained through maps and layout plans pertaining to the gated communities reviewed in this study. The interviewees (primary source) are the managers or management representatives of the estate, a representative from each gated community and primary planners involved with each of the gated communities. There is also documentation of site and layout plans (secondary sources) reviewed with regard to the layout and services of the estate.

The primary data for this study is obtained from the interviews conducted with the Estate Management and representatives. The interviews which were conducted were with the head spatial planner and the head planners of the gated communities of focus within one interview. A separate interview was also conducted with the representative from ZEMA. Two interviews had been

conducted as all the relevant people required were present in one interview. From these interviews, information regarding the estate development principles and goals in its development can be understood. The layout designs and the reasoning for the implementation of the principles is gathered, in order to understand how the physical built environment affects the social aspects of the development. Whether or not there is promotion of a sense of community and identity will be established by the means of interviewing the necessary professionals whom are involved, as well as the influence of the management on the social aspects of the development.

4.2 PURPOSIVE SAMPLING

Sampling is the process of selecting units or results from a population of interest or of the study. This allows a generalised result from the selected population or results (Trochim, 2006). In qualitative research purposive sampling is one of the most common sampling strategies. Sample sizes, which may or may not be fixed prior to data collection, depend on the resources and time available, as well as the study's objectives. Purposive sampling is therefore most successful when data review and analysis are undertaken in conjunction with data collection (Mack et al., 2005).

This method of sampling is used in the study as it is a qualitative study, the nature of which is dependent on the information which is obtainable through the interviews. This sampling is also used as all of the research data obtained will be reviewed, compared and analysed in conjunction with each other.

The case studies chosen for the research are the Zimbali Coastal Resort, Izinga Ridge and Kindlewood. The reason for these gated communities being chosen is that they are all different from each other in contextual terms, as well as in their layout. These gated communities are, however, all well established, have different development aims and are at different levels of completion. These samples will thus provide a better understanding of the gated communities being developed, as well as the characteristics of these gated communities in general.

4.3 DATA ANALYSIS

Data analysis is based on examining, categorising and tabulating evidence to assess whether the evidence supports the initial plan of the study. For case study analysis, the following principles are used:

A thematic approach to data analysis is used. Thematic analysis involves identifying the core patterns or themes within the data. It allows one to organise data in more detail (Boyatzis, 1998). With this form of analysis, once themes have been identified, the research data is accordingly broken down within these themes and discussed in relation to the research objectives and questions.

In terms of the data analysis, as per the table (4.0) outlines, the data is firstly analysed in relation to the New Urbanism Approach, New Urban Agenda, and Seven Qualities of a 'Responsive Environment Secondly once this is reviewed, a comparison with the other gated communities in the same perspective will be done in the primary form of a table.

The reason for this approach to data analysis being used is due to the study being qualitative. This method will allow comparisons between the case studies to be done. This comparison will be done in order to understand the manner of the development of gated communities. The comparisons of the gated developments will outline the similarities and differences. From this, a conclusion will be derived from the information ascertained, the research objectives will be met and the research questions will be answered.

Table 4.0: Themes, objectives, research questions, sources of data and method of analysis used in study

Theme	Objective	Research Question	Primary Source	Secondary Source	Method of Data Analysis
Spatial Layout	<ul style="list-style-type: none"> To determine how spatial layout designs of gated communities affect the social cohesion of the community living within the gated precincts. To determine the layout and design principles that are used in gated estate developments. To determine whether a sense of community and a sense of identity is promoted within gated communities through the spatial development. 	<ul style="list-style-type: none"> How does the spatial layout of the gated communities affect the social cohesion of the community within? What layout and design principles are used in gated estate developments? Is the sense of community and sense of identity promoted within gated communities through the spatial development? 	Semi - structured Interviews	Site and Layout Maps/Plans	Comparison of: <ul style="list-style-type: none"> New-Urbanism Approach New Urban Agenda Seven Qualities of a 'Responsive Environment' Other Gated Communities
Social Cohesion	<ul style="list-style-type: none"> To determine the influence of estate management on spatial development aspects within gated communities. 	<ul style="list-style-type: none"> What influence does the estate management have on the spatial aspects within gated communities? 	Semi - structured Interviews	N/A	Comparison to other Gated Communities

CHAPTER FIVE: ASSESSMENT OF THE ZIMBALI COASTAL RESORT

5.0 HISTORY AND BACKGROUND OF ZIMBALI COASTAL RESORT

Tongaat-Hulett Developments (THD), which is a development branch of Tongaat-Hulett, established the Zimbali Coastal Resort in the late 1990s. The company's aim or development goal is to be "Living in Harmony with Nature". Tongaat-Hulett strives towards maintaining the original ethos of the land usage practised by the previous owners, dating back to the 1900s, (THD, 2014).

The Zimbali Coastal Resort is blessed with a 3.5 km beachfront which is highly accessible. Through planning, the aim was to create a balance between conservation and development within the estate. The managing process of the natural wildlife and ecosystems was planned in order not to harm the natural environment, as well as for there to be areas of rehabilitation within the development in order to preserve the natural flora and fauna. The estate contains a range of fauna and flora, an 18-hole golf course, and social and sporting facilities surrounded by the residential structures which have been positioned in a way which doesn't affect the environmentally sensitive systems. These structures complete the development of the Zimbali Coastal Resort within a protected ecosystem. The structures complement and enhance the natural beauty of this estate. The initial plan of what the estate would become was either that of a golf estate, a beach resort or a coastal forest estate. The plans went further to establish a relationship between Tongaat-Hulett and IFA Hotels and Resorts, which incorporated all three ideas and this led to the creation of the Zimbali Coastal Resort. This partnership and these development goals are considered to be successful and are recognised locally, nationally and internationally (ZEMA, 2012; 2016a).

A provincial road, the M4, split the Zimbali Coastal Resort into two sites until 2005. There was a private/public partnership between the developers of the estate and the provincial and national road governance which has been part of the development plans and goals of the estate to reroute the provincial road. Prior to this rerouting, the estate had restricted amenities and residential housing developments to the eastern side of the estate. Once the rerouting had been completed, the two parts of the estate were integrated into one complete and single entity. With this integration came many benefits. The natural fauna and flora had a larger area in which to be preserved and the natural habitats were increased (ZEMA, 2012).

On the Tongaat-Hulett website, Zimbali's development aim is to create a new living experience and lifestyle within a naturally stunning environment. The resort combines sophistication, tranquillity and a relaxed lifestyle where a person can be at one with nature (THD, 2014). This is achieved by taking advantage of the natural environment and the vast coastline within the estate, as well as by absorbing and preserving the natural scenery, fauna and flora within the estate. The estate boasts a

range of activities for those who live within the estate and this is what makes the estate so remarkable (ZEMA, 2012; THD, 2014). The management of Zimbali Coastal Resort emphasises that 'We' fit into the environment: the environment does not fit into 'us' (ZEMA, 2016a). The rules and regulations within the estate are strict, as are the security measures of surveillance perimeter fencing and guards, in order to maintain the safe and secure lifestyle. The estate incorporates one of three remaining coastal forests in KwaZulu-Natal (ZEMA, 2016a).

5.1 ESTATE MANAGEMENT: ZEMA

The estate is managed through ZEMA. All homeowners and purchasers within the estate have an obligatory membership. The directors of the association are part of a group or a board of directors, and are responsible for the management and implementation of the guidelines of any building and landscape development within the estate. ZEMA also ensures that all contractors within the estate proceeding with any development are regulated, and that they comply with all the development protocols within the estate. ZEMA thus implements and supports the developer's vision for Zimbali (ZEMA, 2016b).

ZEMA outlines and sets the policies which regulate and administrate the daily activities within the estate. These regulations are outlined and decided by the board of directors within ZEMA. The board may also employ, contract, and hire further officials or companies to deliver services within the estate. It may also increase the funds required in order to complete their active duties through levies. The association may also assign professionals or committees, as required, for assistance and advice where needed. ZEMA may also implement rules and regulations regarding the conduct of members for the benefit of everyone within the estate and may impose penalties if these rules or regulations are broken through non-compliance within the estate (ZEMA, 2012).

ZEMA's role, through the guidance of the electoral board, ensures good management and administration of the estate, as well as the maintenance of common property for the benefit of everyone within the estate, including the stakeholders. In order for the association to achieve this, there is the requirement of the Board to appoint portfolio committees. These committees consist of the owners as the members, and these members facilitate and assist with the issues with regard to each portfolio. From this feedback, there would be recommendations and alternatives to address any issues that have arisen, or any requests that have been received for certain developments, or any matter within the estate that should be reviewed. These committees consist of the architectural and landscaping review, security and the environmental management professionals (ZEMA, 2012).

5.2 PUBLIC AND PRIVATE AREAS

There are areas that are restricted, based on the ZEMA board of directors as well as the Town Planning Scheme's decisions. These so-called 'public areas' are only deemed usable, or are exclusively restricted to those who are members, homeowners, residents and their visitors, and the Zimbali Lodge or other hotel guests. These are not accessible to the general public or those who are from outside of the estate, or to those who have no reason to be on the estate. These restrictions are also imposed on the resident staff, contractors or employees of the estate, and any service providers who are not allowed to utilise these public facilities (ZEMA, 2012).

The permitted users of these areas are able to use them for recreational purposes, however these users are expected to respect the natural environment, as well as not to litter. The users are expected to respect the privacy of those utilising these areas also, as well as the rights of those people. No private activities or functions are allowed and no open flame braais are permitted within these public areas (ZEMA, 2012).

The purpose of outlining the public areas by ZEMA, is to understand the actual nature of public areas. These public areas are only accessible to those who are staying within the gated community and not to the actual public. A better term for these public areas within the community would be to classify them as common or shared areas within gated communities. Secondly, there is a need to understand that these areas have been planned in order to promote social interaction within the gated community. These areas have also been outlined to understand how planning physically influences and regulates how people interact within the gated community.

Based on the regulations of ZEMA and their Board of Directors, private functions are those which consist of more than ten people who want to exclude members or other people from associating with the function and its guests for a period of time, as well as within a specific public area.

With regard to these functions, there are limitations as to where these can be held. These functions cannot be held in the Lower Lakes System due to its environmentally sensitive nature. The Valley of Pools area is also excluded due to safety concerns relating to situations where bodily harm could occur. The beach area is beyond the walls of the estate and its security fences hence here the restrictions only apply in terms of the municipal by-laws governing usage of the beach area (ZEMA, 2012).

The private areas are outlined to understand the regulatory function of physical planning within the gated community. The physical implementation of certain elements within the gated community, as well as the rules and regulations which guide the development, work hand-in-hand in order to regulate and influence how people interact within the walls of the gated community.

5.3 PLANNING AND DEVELOPMENT OF ZIMBALI COASTAL RESORT

The management board of Zimbali Coastal Resorts is the Zimbali Estate Management Association (ZEMA). The association's ethos is "To uphold and enhance the secure, high quality environment within the Zimbali Coastal Resort". Through this management association, regulatory standards are maintained within the estate.

An interview was conducted with a representative from the Zimbali Estate Management Association (ZEMA). The representative is a building and construction manager within the estate and is currently employed by the association.

To start the interview, there was an open introduction which described the estate and what the estate is about. The interviewee was asked a set of semi-structured questions regarding the estate and the social aspects within the estate.

During the introduction, the interviewee indicated that Zimbali Coastal Resort is a one-of-a-kind in the country, and that it was established with the aim of creating a unique lifestyle where people are able to get away and experience a different atmosphere within the resort. The resort aims to promote a lifestyle where all interactions and developments within the estate respect nature and the environment. The estate is managed by ZEMA, which is an independent board which also works with Tongaat-Hulett Developments in any aspects regarding development within the estate.

The development has a residential component, as well as hotels and sports clubs within the development. There are also other sporting facilities within the development which are restricted to the residents and hotel guests. Some facilities are shared, such as the golf course.

The aim of the development of Zimbali Coastal Resorts was to create a unique and eco-friendly development which was one of its kind in South Africa. The development was coordinated with Tongaat-Hulett Developments. The development aimed at creating a lifestyle where people are able to interact with nature and live harmoniously with it. Due to the size of the land, there are over 900 residential units which have already been developed. Zimbali only has a few more units to develop and thereafter the resort will be complete. Upon completion, the resort will only maintain its current management structure and fulfil the requests or demands of the current residents.

The design influences of the estate are of a Balinese origin, as well as other Asian influences in terms of the eco-friendly designs of the houses. Such designs will provide longevity of the homes and environmentally friendly homes, which do not affect negatively on the natural environment. The homes are all made from clay bricks, which have the advantages described above. These design principles are used in order to provide a friendly environment to live in and to adjust to the sub-tropical natural environment of the locality of the estate.

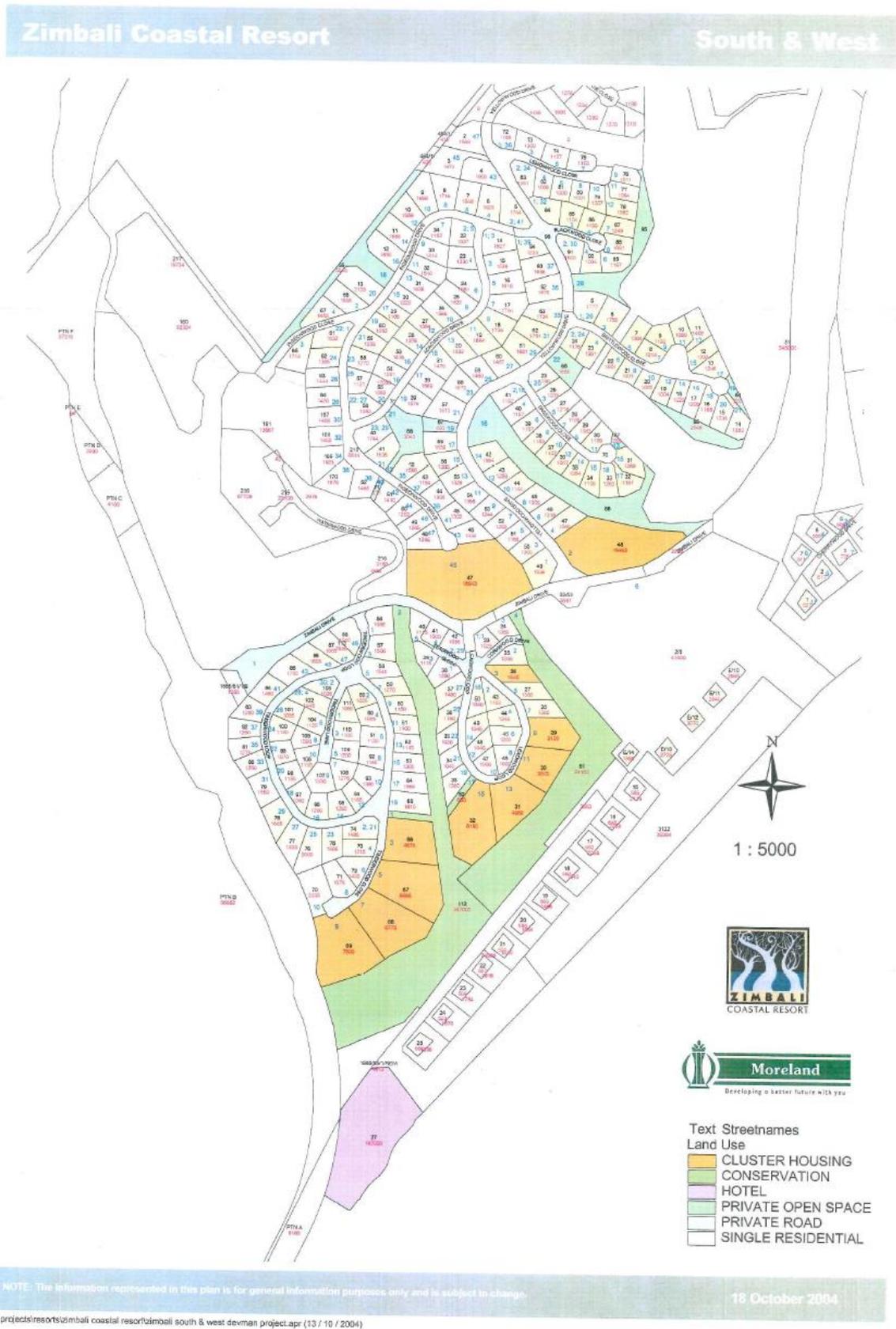
Building standards are of great importance and emphasis is placed on the resources used in the development of the Zimbali Coastal Resort Estate. There is also emphasis placed on environmental conservation and the incorporation of the natural environment within the estate. There is the understanding that human activity will have a direct impact on the environment, especially when it comes to development aspects. The planning of development within the Zimbali Estate involves a serious consideration of the possible environmental impact to preserve that relaxed lifestyle goal and ambience. Due to the sensitivity of the area, as well as the development goals which are strived towards, the concept of a 'Zimbali Architectural Language' has been established. This concept derives from an Asian background in which development is promoted to have a close relationship with its natural tropical surroundings. The term, 'Zimbali Architectural Language', refers to the natural resources of the structures, their configuration and the materials which are used in order to create an African/Asian feel (ZEMA, 2012). Therefore, the understanding is that there is more of a promotion of how people are interacting with the environment, rather than how people interact with one another.

In relation to the master-planned development of Zimbali, there are recreational spaces which are both passive spaces and active spaces. Those who are permanent residents and those holidaymakers who have access to the facilities best use the spaces that have been planned (ZEMA, 2012). These open spaces provide means for which people are able to interact with one another and socialise.

There is the promotion of privacy within Zimbali. The residents who stay within Zimbali seek this privacy when they buy into the estate. The homeowners within the estate or the people who buy within Zimbali buy due to their need to get away from their busy lives. The lifestyle within Zimbali is one that people buy into to get away from city life and to relax and enjoy some respite from their daily lifestyles. There are also many foreign investors within the estate who use their homes as holiday homes.

There are some issues which arise within the estate as people who live within the estate require a private type of lifestyle. The issues that arise involve the absence of boundaries, which people seek as they want privacy from their neighbours. Due to there being no boundary fences or walls separating properties, people do experience problems, however, these aspects are outlined within the regulations and the lifestyle guidelines issued to the buyers before they purchase their properties.

Figure 5.3: Partial Layout Plan Zimbali



Source: Zimbali Coastal Resort: South & West Layout Plan

Figure 5.4: Zimbali Town Planning Scheme



Source: Zimbali Town Planning Scheme

Figure 5.5: Zimbali Aerial



Source: Zimbali Coastal Resort: South & West Aerial Photograph

According to the interviewees, there are no specific principles which are used to develop the estate. The estate has been developed in accordance with the demand for any specific residential needs or amenities. The only development principles which have been used are in accordance with the building standards and architectural design used.

The way in which residential developments are conducted is that the development must be according to the regulations of the building standards set out by the Estate Management. The Estate Management, ZEMA, has its set contractors who undertake any building requirements within the estate and a set of professionals is used when it comes to any development on the estate.

According to the map of the estate, development commenced from the northern gate on the right in figure (5.1) and progressed, over time, towards the left in figure (5.1) or towards the southern gate of the estate. The welcoming offices served as the starting point of the development and the residential units were developed thereafter. The golf course defined where the residential units would be developed. Towards the north-east of the estate, or the right bottom of figure (5.1), the protected area of the estate is depicted. Within this area there will be no development as it serves as the rehabilitation area of the estate where all sensitive fauna and flora from within the estate are kept and maintained. Figure (5.2) shows the detailed layout for the entire site. What is understood from this plan is the density, as well as the planning of these densities, based on the view and around the sensitive natural fauna and flora and the golf course. The units which are located around the shoreline are bigger in terms of building size as well as plot size. Figure (5.3) shows a partial layout view of the south west side of the site. It shows the normal density and units which are within the site. There are cluster housing units which are also outlined and within these areas there are open spaces which allow the residents in those units to socialise with one another. The hotel is also outlined on the plan, however, it is away from the private units as the hotel guests have restricted access to those whom are residing within.

Figure (5.4) outlines the town planning scheme for the entire site. It outlines the zoning for each of the resort, residential developments as well as the recreational facilities, mixed use and conservation areas. Figure (5.5), the aerial view of the site, shows the greening of the units and developments within the site. It shows how the developments are incorporated within the development and there is a promotion of conservation within the gated community.

Upon conducting the site visit, there was limited access to the site as there is no access given to the public. The access given was only to the road leading to the social areas such as the pools and restaurants. Unless one is a buyer into the estate or a resident there are strict rules enforced when moving around the roads, and there are fines which are incurred if rules are broken. There are no

concrete walls or fences within the estate dividing people's properties, however, the natural flora is used to provide a boundary to outline units. People who want more privacy have bigger flora covering their boundaries which limit or give no view within their land. There are many walkways which people can use to walk or cycle.

CHAPTER SIX: ASSESSMENT OF THE KINDLEWOOD ESTATE

6.0 BACKGROUND

The geographical location of the Kindlewood gated community is on the north coast of KwaZulu-Natal. The estate is considered an elite estate, and is 'golf free' in comparison to the other gated communities adjacent to it such as Broadlands and the Mt. Edgecombe Country Club. Kindlewood has five phases, which have 573 potential units. Potential due to the estate still being in the developing phase, and that facilities may be added or removed, depending on the demand from the residents that have bought into the estate. The estate has a significant private open space within which promotes a walking or cycling environment (Kindlewood, 2017; THD, 2014c).

6.1 PLANNING CONCEPTS AND PERSPECTIVES OF KINDLEWOOD ESTATE

The principles which are adhered to when developing the Kindlewood Estate are the 'One Planet Living Principle'. During the planning phase of this gated community there was emphasis on developing an eco-friendly estate, which had a low carbon footprint and had a good quality of life within the estate. With this in mind the principles of One Planet Living were followed in the planning and development phase, where the layout promoted a friendlier environment by means of promoting a walkable community with open spaces and parks for the community to use (WWF, 2004; Bioregional, 2017a). The initiative of One Planet Living was introduced in South Africa in 2010 and by the year 2014/15 was introduced into development by promoting development according to the principles (Bioregional, 2017b).

The principles of One Planet Living consist of:

- Happiness and Health – the promotion of socialising, active lifestyles and meaningful lives in order to promote good health and well-being
- Equity and local economy – the support of local employment in projects regardless of their regional context
- Culture and community – reviving and respecting local identities and cultures that would encourage people in shaping their community and that would create a sustainable culture within that community
- Land use and wildlife – within the development the biodiversity would be protected and restored. New natural habitats would be created and integrated within the newly built development
- Sustainable water – the effective and efficient use of water in the buildings and avoidance of issues such as floods, droughts and water pollution

- Local and sustainable food - support sustainable and humane farming which promote access to healthy, local, small impact and organic diets and reduce food waste
- Sustainable materials – when developing the use of healthy and sustainable products which promote low energy usage, locally produced, as well as produced from waste or renewable resources
- Sustainable transportation – emphasis on the reduction of the need to travel, as well as encourage the use of zero or low carbon emission vehicles or modes of transport
- Zero waste – reducing waste wherever it is possible within an area with the goal of there being no waste to send to a landfill
- Zero carbon – creating buildings which are more efficient with energy and utilise energy saving and renewable resources
(WWF, 2004; Bioregional, 2017a).

6.2 PLANNING AND DEVELOPMENT OF KINDLEWOOD ESTATE

The design aspects and principles from the Mt. Edgecombe Country Club Estate based on the principles of One Planet Living have influenced the Kindewood Estate. Within this estate, there is the promotion of social facilities as there is a demand from the residents for them. Such social facilities are the clubhouse, tennis courts and swimming pool. Within the estate there are large areas which are wetland and the developers have used this as an advantage to promote a more walkable environment for people, as well as add a level of appeal and aesthetics to the gated community. There had been provision for a school, however, the residents do not want it as it will affect their views of the natural environment and affect the aesthetics of the community. Given the price to buy into these estates, the natural views and aspects are something that is promoted in the development and what people consider when purchasing into the estate.

Concerning the development of the Kindewood Estate, the aim of the development is to provide a safe and secured estate, which encourages the One Planet Living Principles in the development. Based on the demand for these communities and that THD is a company, there is also a need to derive profit from these developments. The context of the placement and the provision of land available allowed this development to be located within Mt. Edgecombe, which provides an ideal location to implement the principles of One Planet Living.

Along with these principles, there are other factors taken into consideration concerning the sustainability aspect of all of the features within the development, and the sustainability aspects that are considered influence the layout design of the estate. These aspects include the open spaces being created as well as the indigenous landscaping being preserved within the development once

the structures are created. The structures make use of solar technology for lighting and water heating, which influences the positioning of the units as well as the layout itself to best use the natural light.

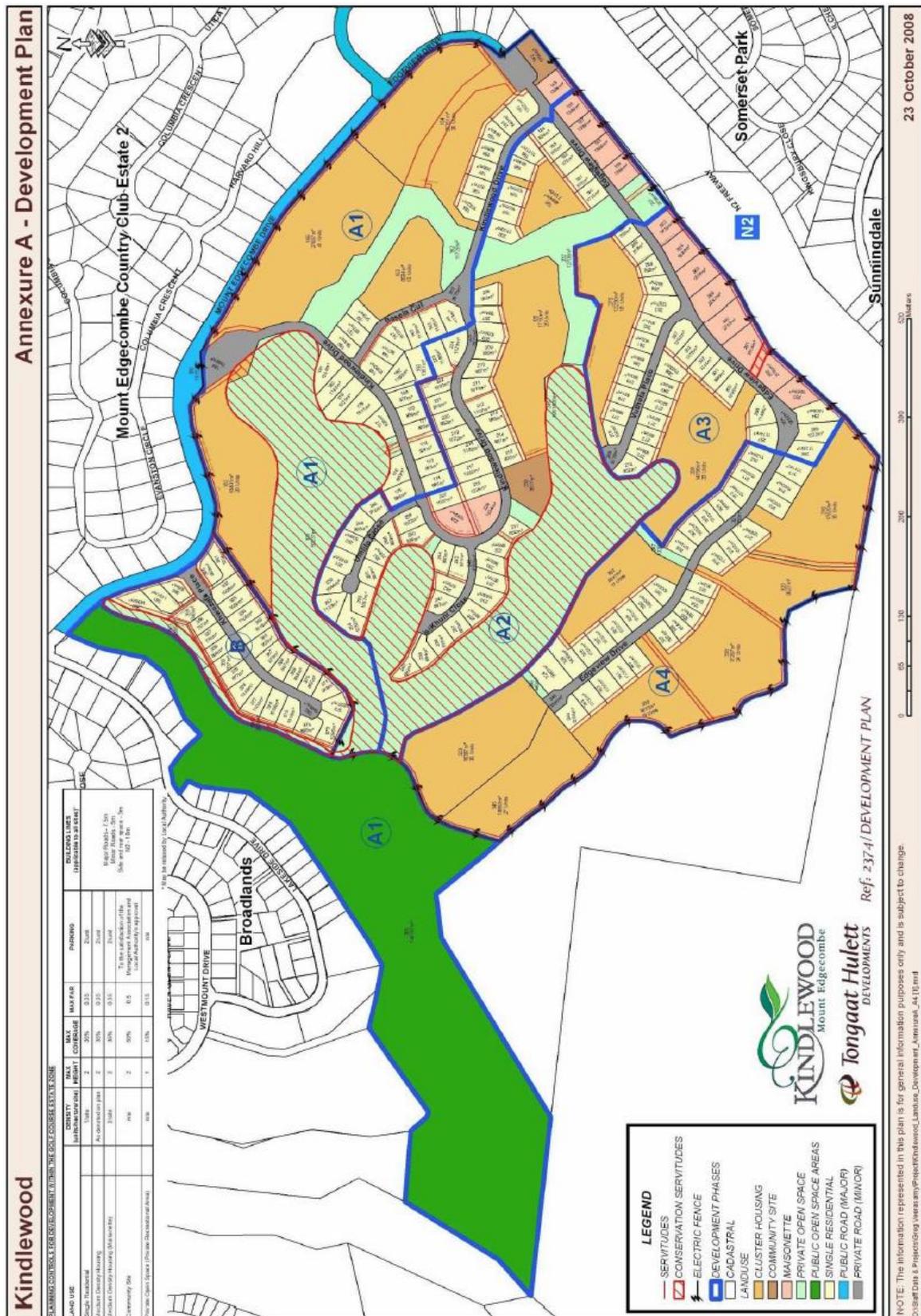
Social cohesion is considered when the layout design is being planned and social facilities are included in the design to promote this cohesion. Social cohesion is promoted within the development as it is considered an important factor in the success of any gated developments. The provision of social facilities in the planning stages, which are accessible to all residing within the estate encourages people to use these facilities to socialise with their neighbours.

The way in which people are regulated in terms of behaviour and conduct within the estate is through the management, however the physical planning also provides the necessary guidance with the creation of facilities to be utilised by people, and the limitations and accessibility factors of the estate. Another aspect is that of privacy within the estate, as it is something that is promoted, however, socialising with others residing within the estate is also promoted. There are community functions which are held at the community centre within the estate and all residents are invited to socialise.

The planning aspects are also influenced by the demand by the residents for other social aspects within the estate, such as the sport facilities which include a pool, tennis courts and a soccer field. Another planning aspect to control and influence the way in which people conduct themselves is the fences that are within the estate and the roads. These allow the people to access certain areas whereas others are for conservation and rehabilitation.

6.3 LAYOUT DESIGN OF KINDLEWOOD ESTATE

Figure 6.1: Kindlewood Development Plan



Source: Kindlewood Building Design Code Rev Sept 2014.pdf

The contextual background of the Kindlewood Estate has evidently influenced the design layout. The development principles and goals for the estate are seen by the layout plan, and the One Planet Living principle is clearly evident as there are more open spaces within the development and the residential developments are laid around the natural areas within the estate. Due to the size of the estate, there are three entrances to allow a more efficient flow of traffic within. As seen in figure (6.1) the community facilities are planned in the middle of the community and are easily accessible to all those residing within the estate.

The detailed plan figure (6.1) outlines the private open spaces and public open spaces. This is important as the public open spaces are those which are accessible to the public who are not residing within the development. The private open spaces are those that are exclusive to those residing within the estate and the public have no access to those areas.

Upon conducting the site visit, walls and fences were evident throughout the site. The residents were given privacy and were not bothered by those around them. The recreational areas were situated in one area and there were many open spaces throughout the site for the exclusive use of the residents of this gated community. There were cluster units within the site as well as semi-detached units and privacy was not compromised in any way. Socialising was clearly being promoted as there were functions advertised such as a 'bring and braai day' for those residing there to meet with their fellow residents at the community centre.

CHAPTER SEVEN: ASSESSMENT OF IZINGA RIDGE

7.0 BACKGROUND

The geographical location of Izinga Ridge is on the north coast of KwaZulu-Natal. Izinga Ridge consists of four phases, two of which is gated and has its own unique aspects. These four communities within the Izinga Ridge development are called villages by the developer and have the names of; Iduli Close, Idundu Close, Ithafa Close and Iduma Close. Each of the villages has an average of 40 homeowners within (Izinga Hills Private Estate, 2017; THD, 2014). The sea facing properties are higher value properties and fall within the gated communities of Izinga Ridge. The other two phases are considered normal residential units, which are not gated. The community facilities are limited as this gated community is small hence there is only a community centre or clubhouse provided.

The gated developments of Izinga Ridge have an importance in the landscape of the communities within, with 24-hour surveillance, electric fencing, as well as their own emergency response teams (THD, 2014).

7.1 PLANNING PERSPECTIVE, INFLUENCES ON LAYOUT AND ARCHITECTURAL PERSPECTIVE

Izinga Ridge promotes a safer upmarket living area by virtue of the physical planning of the developments, and the physical planning is influenced by the principle of Crime Prevention through Environmental Design (CPTED). The gated community is managed by the residents and the developers only influence the development in terms of the physical built environment (Rob Anderson and Associates cc, 2014). This principle has been used as the core aim for the development is to create a successful and value appreciative investment, inclusive of sustainable development considerations. The factors important for sustainable development are the protection of the environment, water and electricity conservation, and to create social facilities. These factors all influenced the planning and development in terms of the layout and the design factors.

With this form of management, there is promotion of resident involvement, and a better managed environment is considered more secure, has increased property values, is more serene and is a friendly environment to reside in. The developers of this gated community, namely Izinga Ridge, provide the mechanisms and then allow and encourage residents to utilise these mechanisms (Rob Anderson and Associates cc, 2014).

The mechanisms that are provided by the developer are;

- Residents given control over the security and landscape contracts for the community. With this there is a review of the competency of the service providers
- The developer develops per the design influenced by CPTED

- The rules and regulations are enforced
- A communications structure is created so if there is unacceptable activity within the community, it can be dealt with
- Ownership of precincts
- Advising from experienced consultants
- The owners manage the contractors who are working on the estate (Rob Anderson and Associates cc, 2014).

7.2 DESIGN MANUAL/ DESIGN PRINCIPLES

The owners and the developers and specialists who have been selected all come to an agreement of the design principles and compile a manual which is followed within the gated community. This manual serves as a guideline for all developments within Izinga Ridge and is followed strictly in order to achieve the requirements of those staying within the community; namely to provide a safer and much sought after community to reside in (Rob Anderson and Associates cc, 2014).

There are principles established and abided by:

Defensive space – this outlines the areas which are private, semi-private and public spaces; in order to achieve a secure environment and define the zoning of the gated community. Area accessibility in terms of public and private access is defined.

Territorial space – this outlines the areas within the community which are accessible to everyone who lives in the community, and the areas which have restricted / limited access to selective people. This is to insure that people know the areas that are commonly accessible and those which are private.

Surveillance – this is to insure that there is a link between design and social activity within the gated community. This is where people are more aware of their surroundings within the community and this is more effective by means of an effective layout design. Areas that are less visible are monitored by means of CCTV or the security patrol within the gated community. With this, there is a high level of security equipment used as well as a high quality of materials throughout the gated community in order to discourage trespassing (Rob Anderson and Associates cc, 2014).

The principles, when outlined by the interviewee, emphasise that even though this gated community emphasises safety and security, there is still the promotion and emphasis of social cohesion, and all three aspects were incorporated in the planning of the development. As the arguments against these types of developments have been raised before with the developers, it is important to emphasise the social aspect in gated developments. Due to Izinga Ridge comprising of four phases, not all of the phases are completely gated. This allows for the existence of an urban community,

which is accessible to the public and not just to those residing within the community. The other phases, however, are gated developments which have restricted entrance and restricted facilities which are only accessible to the people residing in the community.

A notable aspect which has been raised with this development is that the buyers participated in the planning process by stipulating the requirements for their gated community. The developers consulted with the buyers to determine their wants and needs from a physical built aspect, so the planning was more efficient. This in turn created a more appealing community for potential new investors, with the development billed as a secure community with social facilities close to other amenities.

7.3 DEVELOPER'S INFLUENCE IN THE MANAGEMENT ENVIRONMENT

The developers, when developing, create opportunities or access to the owners to create a Managed Environment. These opportunities, which are created by the developer, are firstly to have a well-landscaped environment throughout the gated community. A control centre is built at the one entrance to the gated community and cameras at the entrance booths at the three entrances (Rob Anderson and Associates cc, 2014) monitor vehicles which enter and exit the community.

The development of security measures such as perimeter electric fencing and surveillance systems in commonly shared areas allow the residents within to control access to an enclosed environment. The developers and the owners who buy into the gated community have a design manual. This design manual is produced during the designing phase and the developers and owners come to an agreement on the holistic plan for the gated community. With all these aspects the owners, developers and the selected specialists within the community are encouraged to make their community secure and more promoted in the area (Rob Anderson and Associates cc, 2014).

The designing factors are influenced by the principle used. This principle requires a well-managed environment with planned facilities and a layout that promotes natural surveillance within the gated community. The management principles of this estate focus on the aspects of protocols, guidelines and security within the development. This is one of the aspects demanded concerning the development of this gated community.

With this style of gated community there is the promotion of socialising. Residents are encouraged to be more involved with the development and to concern themselves with each other in terms of safety and security within the gated community. The community centre and open spaces that have been incorporated are utilised and together this promotes a feeling of community.

From the developer's point of view, unity, collaboration and integration was a crucial factor when considering the planning for the development and making the development successful. In the

planning phase of the development, the aspects that were most demanded by those who were investing within this gated community were considered and implemented. This interface with those who invested in this gated community allowed the development to be more successful in its core aim and a more connected, less segregated development emerged in terms of the gated community.

This community may be gated, however, a sense of connectedness has been created, allowing for a safer environment where people socialise with one another. The Management Association within the gated community utilises the physical planning as well as regulations such as a code of conduct to influence and maintain control within the community and ensure that the principles of the gated community work effectively.

This gated community does promote privacy but it is more focused within the areas of the people's own homes. Through the layout and design natural surveillance is focused on the areas open to everyone residing within, and this allows there to be an awareness of trespassers in the estate. The promotion of privacy within the estate is in line with the constitution, according to the interviewee, therefore there is no misunderstanding within the development concerning how people are allowed to conduct themselves, as well as respecting others' privacy.

7.4 LAYOUT DESIGN OF IZINGA RIDGE

Figure 7.1: Izinga Ridge Site Plan



Source: <https://www.property24.com/new-developments/izinga-ridge/umhlanga/kwazulu-natal/sunset-cove/6377/1165#>

Figure 7.2: Izinga Ridge Phase One Site Plan



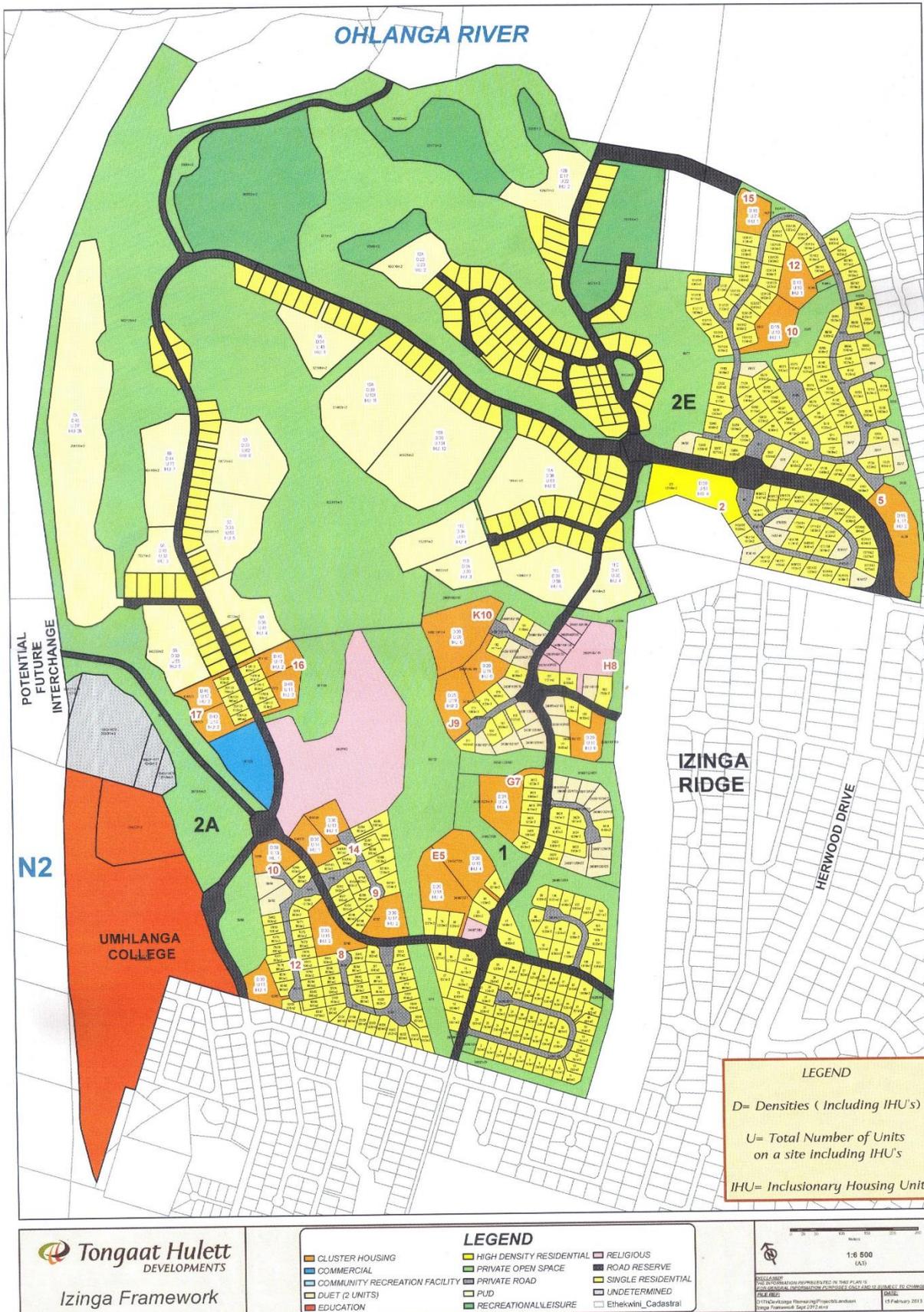
Source: <https://www.property24.com/new-developments/izinga-ridge/umhlanga/kwazulu-natal/sunset-cove/6377/1165#>

Figure 7.3: Izinga Ridge Phase Two Site Plan



Source: <http://www.izingahills.co.za/>

Figure 7.4: Izinga Framework



Source: Izinga Framework Plan

The principles that have been used in the planning and development of this gated community are evident in the design layout in figures (7.1, 7.2 and 7.3). There is restricted access, with only one access point for the entire gated community. Figure (7.4) illustrates the framework of the entire Izinga project, with both gated and non-gated developments. Due to the size of the gated community, one access point is enough for ease of access, and this single access point allows those who enter the community to be monitored. The layout design is simple and promotes natural surveillance within the gated community, with roads on either side of the residential properties. The roads are also shorter and form cul-de-sacs in the community, as seen in figures (7.1, 7.2 and 7.3). The road network is free flowing so there is no need to stop unnecessarily. Monitoring is done through surveillance systems that aid in protecting those within, due to the creation of this community prioritising safety and security. The community facilities are planned in a centralised position between the phases for the residents from both phases to utilise.

Upon visiting the site visit, the gated community was seen to be small but privacy was still promoted. Residents could view the areas around their plots with ease as the community was designed to promote natural surveillance. Due to the proximity to social amenities outside of the gated community, only minimal amenities were planned for and this limited the socialising aspects within the gated community to some degree.

CHAPTER EIGHT: ANALYSIS AND CONCLUDING REMARKS

To understand all the findings, a thematic approach is used to analyse the data collected. This will allow for a systematic understanding of the data in order to answer the research questions and meet the objectives of this study. The main ideas or themes broken down in the data relate to layout design principles and social cohesion. The physical built form of the development uses the principles of design outlined in chapter four, and there are numerous factors that contribute to the development requirements, which are used to analyse the development of the gated communities in this study.

8.0 ZIMBALI COASTAL ESTATE

What can be seen from the data collected is that the development focuses on the Eco-Estate principles of design, which are outlined and emphasised by the interview with ZEMA. This is evident as there are strict building standards and regulations which are required to be completed throughout the development and approval must be granted for all material used before development is proceeded with. Due to the nature of the terrain of the estate and due to it being a sensitive environment, there is an area which is designated as a rehabilitation area to conserve the natural habitation of the area and to preserve the biodiversity. The factors considered when developing the units and structures were size, position and materials. In terms of development goals and principles used in the layout of the Estate, these are not held in high regard, and the main consideration is for development demand in terms of amenities for the residents. Socialising is not promoted within the Estate and the design does not use the layout to influence this aspect at all. In terms of residential design there are no specific outlined boundaries of properties due to the nature of the Estate being eco-friendly. This allows unrestricted movement of the wildlife on the Estate and this, together with the preservation of the natural bushes, trees and other flora of the Estate, gives that feeling of being at one with nature.

Considering the core factors and principles of the Estate and the way in which it has been developed, as well as the essence of the Estate, the principles of New Urbanism and Smart Growth are evident. However, on the issue of the quality of life and the environment, the eco-friendly concept is promoted throughout the entire development of the Estate. There is also the promotion of a walkable environment as well as bicycle routes and trails throughout the Estate. There are, however, only high-income groups of people and this is the targeted investment group for this development. Different types of housing are provided, from single dwellings, to flats, to retirement homes, as well as chalets and hotels.

When considering the New Urban Agenda, there are aspects of this gated community which are not achieved such as the fact that there is restricted access throughout the development where the public are not allowed access and those staying at the hotel are restricted to the hotel facilities only and not the ones which are for those who reside within. The access to public areas is limited in the same aspect, however, these public areas are better termed common areas or shared areas for those residing within the development.

Traditional neighbourhood design has been implemented within the estate. The quality of life is an important and vital element within the Zimbali Estate as the main purpose of this development is focused on providing a getaway from the hustle of busy city life. This brings about spaciousness in the development and the essence of a quality of life, made manifest in the materials used, the design of the structures, as well as in the scenery with the natural environment and the capacity to be in harmony with nature. An omission or disadvantage in the development is, however, the lack of diversity in the income levels of investors. The gated community is not permeable. There is restricted access with high security and surveillance, and controlled land usage within the development, thus the Estate only appears to focus on people who want to live according to this lifestyle and who want to be separated from public access and interaction. The facilities within the gated community are only meant for those who reside within it and the 'so-called' social facilities are not accessible to the public.

The layout of the built environment is well-planned and it is easy to navigate through the development. While there may appear to be scant robustness in the land usage within the gated community, there are many social and sporting amenities which have a variety of uses within the development. There are fields, halls and social areas such as the pool areas, parks and trails which provide multiple functions in terms of social robustness. Pool areas and parks are both for kids and for gathering, as well as for functions that can be held through private reservations with the management. The trails are both for those who lead an active lifestyle, as well as for those who have an interest in the flora and natural wildlife observation, especially that of bird watching.

The three aspects of visual appropriateness, richness and personalisation exist hand-in-hand with each other and are the strong points of this estate in terms of development, starting with the aim of promoting a harmonious experience by living as one with nature. With this in mind, there is a strong sense of pleasure in the aesthetics, as well as the feel or experience of being within the estate in accordance with its strict rules for the maintenance of the estate. As has been pointed out on a number of occasions, there are strict regulations and reviews of the materials used in order to ensure that they are eco-friendly, as well as to enhance the sense of living within these structures. There are no boundary walls within the estate, which allows for the natural movement of the

wildlife and this adds to the aesthetics of the estate. In terms of personalisation, there is the option to buy land and build one's own house. This is limited to an extent by the prescribed materials, and structural style with a Balinese influence, but the size and layout of the building, as well as the exterior finishes are subject to individual preference.

8.1 KINDLEWOOD ESTATE

Given the data collected regarding the development of the Kindlewood Estate, the context of the development played an important role to the actual planning and development of the gated community. Due to the location of the development being in Mt. Edgecombe, and the planned location of this development being adjacent to the Mt. Edgecombe Country Club there has been great influence from the Mt. Edgecombe Country Club.

The layout design of the gated community was influenced by prior projects implemented and planned by THD. The design of the layout was to have the same elements and principles of design as that of the Mt. Edgecombe Country Club, but without a golf course. The Estate has environmentally sensitive areas which work well with the principles being implemented in this development, which are primarily to lower and minimise the carbon footprint within the development.

Concerning the theory of New Urbanism, the gated community has incorporated the principles in the development. Within the development there is the promotion of a walkable community which allows people to walk to the community facilities or utilise the open spaces for recreational activity. Through this there is a form of connectivity, with the people utilising the road networks and paths to access the various areas throughout the community. Given the nature of this gated community there are no mixed use developments such as offices and shops. It is purely residential, with a few facilities within for people to utilise for social means.

In terms of the mixed types of housing, there are three which are used within the development; the first being single detached/home units. Second are the maisonette units that are part of a bigger building, however, they have their own entrances as well as multiple storeys. Lastly, there are the cluster units which are higher density housing within the gated community. Due to gated communities being marketed towards the affluent, the quality of the materials used within is of a very high standard and also aims to minimise the carbon footprint. The gated development aims to provide an aesthetically pleasing environment to reside in as well as to improve the quality of life within, but the creation of a sense of place is questionable here as this gated development promotes privacy to an extent and it is up to the residents to socialise with others in the estate.

Traditional neighbourhood design can be seen within the estate as there are aspects of the development which have outlined spaces which people utilise, indicating where the public/shared

areas within the development are. The centre of the development is a place where the social facilities are planned and where people share these facilities. The aspect of density is only in terms of housing and not in terms of being close to shops, services or offices. The aspect of sustainability is an important aspect that has been promoted in the development as the principles of One Planet Living are used in the development. The core principle of the development is to reduce the carbon footprint which would also impact on the use of the materials and encouraging/promoting people to walk about within the gated community. The promotion of a walkable environment reduces the need for vehicles being used, which then also promotes a safer environment.

Given the feedback from the interview, the quality of life is an important aspect in this development. This is crucial as people pay very generous amounts to be able to live within this gated community and at this price, the requirement is to provide a better quality of life based on the planning. This is achieved firstly in terms of the views and the actual layout, which is spacious and harmonious. Secondly, the quality of the services provided, as well as the materials used with the architectural influence, plays an important role to create a demand for people to want to invest into this gated community.

As the New Urban Agenda is the new standard that was set globally by the UN in October 2016, a review of how the principles implemented in this gated community are effected or are in line with the new standard of development is in order. The New Urban Agenda's aims are outlined in chapter four, and this gated development is mostly in line with this standard. There are, however, aspects of the principles entailed which are not met: The aspect of equal access is not met as there is a restriction placed on those who do not reside within the community and the aspect of connectivity is thus limited because of this.

When considering the Seven Qualities of a 'Responsive Environment', there are elements of permeability, variety and legibility. These are all linked with one another as the gated community provides a different means of access, however, there is limited variety in terms of development typologies within the development. There is no variety as it is strictly a residential development, which also links in with the element of robustness, as there isn't any. In terms of legibility, there is good legibility as road networks and paths are all identifiable within the development and the land uses and shared areas are clearly outlined. Permeability is therefore something which is not achieved in the development due to the public being restricted and not having access to this community.

The element of personalisation is incorporated within the development as people can develop their homes according to their needs, however, they are limited to the architectural style of the gated

development. Participation in the development from the public is important as there is a need to understand what people look for in these gated developments, in order to create a demand for these developments and for the development to be more successful. With this, the elements of richness and visual appropriateness are complimenting factors that are promoted in the development as the developers aimed to achieve these elements primarily.

8.2 IZINGA RIDGE

The primary reason for the creation of this gated development is to create a safe and secure environment which promotes people having control over the internal dynamics. The size of this community is smaller in comparison to the Zimbali Coastal Resort and the Kindlewood Estate, which limits the amount of facilities which are common or shared with those within. However, due to the contextual location there are amenities and facilities that are in close proximity to this gated community.

When assessing the aspects of New Urbanism being evident within this gated community, there is minimal influence, and this is due to the principles of CPTED being applied. There are some factors of New Urbanism which are evident within the gated community, however the size of the community is an influencing factor. The elements of walkability, quality architecture design and quality of life are the only elements evident within this gated development. The community is small and natural surveillance is promoted. The architectural design is limited within the gated community but the quality of the materials used is high as affluent investors are the target market for this development. There is a certain level of building standard which is promoted concerning the architecture and development of the residential units but there is flexibility concerning the personal preferences of the investors. The development is thus one of security with quality residential units, and the development strives to provide a better quality of life.

When considering the application of the New Urban Agenda in this development, there is no relation or significance to these principles in this gated development. The aim of the development is to provide safety and security and to restrict unnecessary access to the gated development. The development has no level of permeability, variety or robustness. There is, however, legibility, visual appropriateness and richness with the personalisation evident within this gated development. The nature of this development is not to provide adequate access to this development, or to provide a range of different land uses, thus there is no robustness in the development.

Given the building and architectural standards set by the Managing Association, there is a sense of visual appropriateness where the developed units are aesthetically pleasing according to the association's standards. The gated community is small and the road networks within are few, with

good accessibility which is easily readable and thus provides good legibility. The association promotes the investors in this community to participate in the design needs and requirements of the estate, which allows these investors to personalise their developments within the building and architectural codes. There is thus a richness created within the gated development by the architectural style and the materials implemented.

8.3 COMPARATIVE ANALYSIS

Given the assessment of the different gated communities reviewed in this study, each has similar and different aspects. Within these gated developments there are positive and negative aspects in relation to what this study aimed to achieve.

The results of the case study of the Zimbali Coastal Resort reveal a result which is different from that which was expected. The findings regarding the case study of Zimbali Coastal Resort show that, in terms of development, the objectives are not to effect integrated planning or to promote social cohesion. What has been learned from this study with regards to the interview conducted is that there is more of a focus on the core design and aesthetics of the estate and the privacy achieved through this development.

The investors in the development focus more on securing a getaway home and often find that the pricing of the housing, in terms of the quality of investment, is cheap for international investors. These are often holiday homes that are left empty for extended periods; however, due to the safety of the estate, there is no need to lock the doors. There is no promotion of social cohesion through layout design within the estate; however, there are areas in which people are able to socialise.

The social areas are also restricted to those who are residing within the estate. There is no promotion of social activities within the estate, however, facilities such as the pool areas, parks and sporting facilities within the estate accommodate social events and allow people to socialise, having been brought together by common interests. In the Zimbali Coastal Resort, layout does affect the social cohesion.

Concerning the Kindlewood Estate, there is a similarity in the development of the gated community to that of the Zimbali Coastal Resort. In terms of planning, Kindlewood did not want a golf course but wanted a community with similar aspects to the Zimbali Coastal Resort. The community is developed around a sensitive natural environment, and aims to reduce the emissions and carbon footprint within the development. In the planning stages of the Kindlewood Estate the gated community planned the social facilities first, and this was done as the developer had learned that this was successful from previous gated developments. Social facilities are important to the development and the promotion of social cohesion within a gated community. Within the Kindlewood Estate

development, spatial layout affects the social cohesion and this is promoted with the physical planning and implementation of social facilities within the development. The Managing Association also plays a vital role in influencing the social cohesion with the implementation of a code of conduct, by addressing people's issues as well as by understanding what is needed in terms of the social facilities in the development. It hosts community days where people from within the development get together. This is different to the planning of the Zimbali development, as that is an old development and Kindlewood is a more recent one.

Similar aspects with these two developments are the incorporation of social facilities, however these facilities are only accessible to those who live in the developments. The implementation of building standards and architectural styles are restricted in both developments. The estates are both large as they are both over 200Ha in size, and the spatial layout is similar in the aspects of there being ease of movement as well as restrictions of speed on these roads.

The difference between these two developments is that Zimbali does not promote social cohesion within the development while Kindlewood does. The timing of the start of the developments are also different as Zimbali started in the late 1990s and Kindlewood started in 2008. Kindlewood has been planned based on what is lacking in older gated communities in order to achieve the developer's goals of a more successful and sought after gated community.

When considering Izinga Ridge and comparing it to the other two gated communities in the study, it differs in terms of the size of the community and in terms of the development goals. The other two aim to be at one with nature and provide a better quality of life living with nature, while Izinga Ridge aims to provide a secure and safe community. Spatial layout affects the social cohesion at Izinga Ridge. This is due to the gated community utilising the principles of CPTED, which encourages participation and the residents within to take control of the management. There is a community centre but no other facilities because this gated community is much smaller in size.

In terms of similarities with the other gated communities in the study, Izinga Ridge also has high quality building standards and architecture, and all three developments are aimed at a more affluent clientele. The promotion of privacy is also a common factor and it is up to the residents to socialise with one another.

Table 8.1: Social Cohesion Characteristics: Analysis between the Case Study Areas

	Zimbali	Kindlewood	Izinga (Gated)
Accessible public spaces	No	No	No
Provision of facilities	Yes	Yes	Yes
Variety of amenities	Yes	Yes	No
Diversity in cultures, age groups and social classes	No	No	No
Promotion of individual identities	Yes	Yes	Yes

Table 8.2: Spatial Layout Analysis of case study areas using Principles of New Urbanism

	Zimbali	Kindlewood	Izinga (Gated)
Walkability	Yes	Yes	Yes
Connectivity	Yes	Yes	Yes
Diversity in land uses	Yes	Yes	No
Diversity in housing tenure	Yes	Yes	Yes
Quality architecture	Yes	Yes	Yes
Traditional neighbourhoods	Yes	Yes	No
Increased density	No	No	No
Smart transportation	Yes	Yes	No
Sustainability	Yes	Yes	Yes
Quality of life	Yes	Yes	Yes

Table 8.3: Spatial Layout Analysis of Case Study Areas using the New Urban Agenda

	Zimbali	Kindlewood	Izinga (Gated)
Provision of basic services	Yes	Yes	Yes
Equal access to all citizens	No	No	No
Promotion of cleaner cities	n/a	n/a	n/a
Flexibility in impact of risk	n/a	n/a	n/a
Consider climate change (minimising greenhouse gases)	Yes	Yes	Yes
Acknowledge and consider immigrants	n/a	n/a	n/a
Support green innovation	Yes	Yes	Yes
Promotion of green and safe public areas	Yes	Yes	Yes

Table 8.4: Spatial Layout Analysis of Case Study Areas using the Seven Qualities of 'Responsive Environments'

	Zimbali	Kindlewood	Izinga (Gated)
Permeability	No	No	No
Variety	Yes	No	No
Legibility	Yes	Yes	Yes
Robustness	Yes	No	No
Appropriateness	Yes	Yes	Yes
Richness	Yes	Yes	Yes
Personalisation	Yes	Yes	Yes

8.4 CONCLUSION AND FINAL THOUGHTS

In conclusion, the findings from the case study revealed a result which was expected. There was a need to review and compile the research findings and answer the research questions. It was important to review the objectives and ensure that they were met during this study. This following will outline the findings in relation to the research questions determined for this study:

What was observed from this study was that there were different aspects which influenced the development of these gated communities, such as the context of where the development was proposed and what the development aimed to achieve in terms of development goals. As reviewed, there was a clear difference between the case studies of this study and the reviews allowed for an understanding of these gated communities, as well as provided answers to the research questions to meet the objectives for this study.

The research aimed to assess the relationship between the layout design and social cohesion within gated communities. From this there was a need to determine how spatial layout designs affected social cohesion in these gated communities. From the findings and analysis, the way in which this was affected was by the initial planning of the gated community. This was due to the respective development goals and what each gated development aimed to achieve, and which in turn affected the physical layout within the development. Depending on the developmental goals, the principles used affected the layout that was used in the gated development. Layout therefore affected whether the development promoted social cohesion, and in the case of Izinga Ridge and the Zimbali Coastal Resort social cohesion was not an aspect considered in the development, nor is it promoted.

In the case of the Kindlewood Estate there were initiatives and physically planned aspects such as the positioning of community facilities being centralised in the gated development, as well as encouraging the people within to socialise with others. The principles of the gated communities were different, however, and these were influenced to some degree by the context of location. The development of the Zimbali Coastal Resort and Kindlewood Estate were influenced by the natural, sensitive environment in which they were located, and natural elements were thus incorporated which promoted a more eco-friendly lifestyle in comparison to Izinga Ridge with no sensitive environment.

There was no promotion of a sense of community or sense of identity. Instead, the findings indicated that privacy was a priority in the gated communities reviewed. Varying levels of privacy were promoted, with Zimbali having the highest level, followed by Izinga and then by the Kindlewood Estate. According to the developers, this promotion of privacy was in accordance with the

Constitution and therefore acceptable, and this aspect was influenced by the developers' goals and implemented by the Management Association within each gated community.

The level of influence of the Management Association in each gated community varied. For instance, the Management Association of the gated community in Izinga Ridge worked closely with the residents and promoted the election of representatives to assist with control of the community. The Management Associations of the other two gated communities reviewed were more controlling and restricting. In terms of spatial development, the influence of the Management Association was based on the project. Zimbali's management controlled what development happened, even after the developer has completed their part, however, if there was a need for further development then the Management Association dealt with it. The developments of Izinga Ridge and Kindlewood had a different approach, where the developer took into consideration the planning of the spatial layout prior to hand over to the Management Association, thus the association only maintained the package which had been received by the developer.

The hypothesis has been proven by the study that the spatial layout design affects social cohesion within gated communities.

This research however had many limitations. The aspects of information regarding in depth details of each gated community being at the discretion of what the developer and management association would disclose. Material given from the developer and management association had been published material by these bodies and there being no other source regarding some aspects. Another limitation was that the developers of these gated communities had been from one company, being THD. The gaps in the research found, was that the information being provided is limited. Another aspect is the one company mainstreaming these developments as they own the land prior to these developments occurring.

Reflecting upon this research journey had been an enlightening one. It has both provided its share of obstacles however, there had been many informative facets along the way.

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