

**THE PERCEPTIONS AND EXPERIENCES OF RESIDENTS TOWARDS DIFFERENT
TYPES OF PUBLIC SPACES
(A CASE STUDY OF DUNCAN VILLAGE)**

BY

**TRYMORE HUTU
STUDENT NO: 16194137**

SUPERVISOR PROF KARINA LANDMAN

**This dissertation is submitted in fulfilment of the requirements for the award of
Master of Town and Regional Planning's Degree to the Department of Town and
Regional Planning of the University of Pretoria, South Africa**



**UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA**
Denkelele • Leading Minds • Diligopolo! Ho Dhlakile!

July 2018

DECLARATION OF ORIGINALITY

Full names of student: Trymore Hutu

Student number: 16194137

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this dissertation is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.
3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.
5. This dissertation, in its entirety, or in part, has not previously been submitted to any other institution of high learning.

Signature of student

ETHICS STATEMENT

I **Trymore Hutu** have obtained, for the research described in this work, the applicable research ethics approval.

I further declare that I have observed the ethical standards required in terms of the University of Pretoria's Code of ethics for researchers and the Policy guidelines for responsible research.

ACKNOWLEDGEMENT

I thank my Almighty God for giving me the opportunity to study at the University of Pretoria, the courage, and the perseverance to realize this study despite a number of setbacks encountered. I also want to thank my family and friends who supported me during the period of studying.

Worth mentioning is my supervisor Professor Karina Landman for patiently encouraging and advising me whenever the sun of hope was about to set. Thank you very much for your guidance and wisdom throughout this research.

I want to express my sincere gratitude to all participants who were willing to participate in this research study and who so graciously shared their time, knowledge and resources. Without you, this research study could not have been conducted to say the least. I would also like to thank Mrs Leelar Pienaar for assisting me in editing this dissertation.

ABSTRACT

PPS (2014) indicated that public spaces are built environmental settings that offer social, economic and environmental benefits to the space users. Different types of public spaces offer social, economic and environmental benefits which lead to different space users to perceiving and experiencing the roles of spaces differently and this also means that users have different preferences towards the types of spaces that should be provided, where they should be developed and which activities should be accommodated in those spaces. Within South Africa, there is inadequate literature on perceptions and experiences of township space users. Within the country, especially in the City of East London, the perceptions and experiences of space users towards different types of public spaces have not been comprehensively explored. The research is aimed at investigating the perceptions, experiences, and preferences of local residents in Duncan Village towards different types and configurations of public spaces that would be able to fulfil a range of local needs in the area.

The research study was completed through a qualitative research approach. The qualitative research approach was descriptive and exploratory in nature.

The study used semi-structured interviews, participant observation, document review and graphic and other visual approaches to collect data and used an inductive approach to analyse the research data.

The findings of the research study pointed out that residents of Duncan Village perceive the roles provided by streets (existing public spaces) differently. The participants experienced that the streets play important roles in Duncan Village through offering different activities such as commercial activities, exercising, and socialising. In the study area, streets are only existing public spaces that offer all activities which are supposed to be offered by other different types of public spaces. Participants experienced that the streets in the study area were affected by factors such as management, ownership, security, climatic conditions and planning and design. In terms of the preferences of residents, the research found that a public park, plaza, sports complex were preferred spaces to be developed in Duncan Village and streets were the only existing public spaces in the study area. The findings of the research articulated that preferred public spaces should accommodate the following activities: business (formal and informal business activities); exercise (running, walking, jogging); and socialisation. With regard to the space users, the research found that all age groups (children, youth and adult) used streets.

Considering the findings, it is suggested that the function of different spaces should be reconsidered and incorporate Crime Prevention through Environmental Design CPTED strategies, address all factors that affect the functionality of preferred different types of public spaces, and police surveillance.

Keywords: Public spaces, community perception, public park, plaza, sports complex, street, Duncan Village

List of acronyms

Acronyms	Descriptions
ANC	African National Congress
BCMM	Buffalo City Metropolitan Municipality
CBD	Central Business District
CPTED	Crime Prevention Through Environment Design
DV	Duncan Village
DVRA	Duncan Village Residential Association
FHISER	Fort Hare Institute of Social and Economic Research
GCC	Gompo Community Council
IDP	Integrated Development Plan
LSDF	Local Spatial Development Framework
LUMS	Land Use Management Scheme
PPS	Project for Public Spaces
RDP	Reconstruction and Development Programme
SAPS	South African Police Services
SDF	Spatial Development Framework
SPLUMA	Spatial Planning and Land Use Management Act, 16 of 2013

TABLE OF CONTENT

Declaration of Originality	i
Ethics Statement	ii
Acknowledgement	iii
Abstract	iv
List of acronyms	v
1 CHAPTER ONE: BACKGROUND OF THE STUDY.....	1
1.1 Introduction	1
1.2 Rationale of the study	3
1.3 Research aim and objectives	5
1.3.1 Aim of the study.....	5
1.3.2 Research objectives	5
1.4 Scope of the study	5
1.5 Research methods.....	6
1.6 Structure of the research report	6
2 CHAPTER TWO: LITERATURE REVIEW.....	8
2.1 Introduction	8
2.2 Definition of public space	8
2.2.1 Physical and functional qualities of public spaces.....	10
2.3 Community perceptions about public spaces in townships	14
2.4 The need for public spaces in the community	16
2.5 Typology of urban open spaces	19
2.5.1 Food production areas.....	22
2.5.2 Parks and gardens	23
2.5.3 Recreational space.....	23
2.5.4 Plazas	24
2.5.5 Streets.....	24
2.5.6 Transport facilities	26
2.5.7 Incidental space	26
2.6 Uses and activities of public spaces.....	28
2.6.1 Activities	28
2.6.2 Uses of public spaces.....	31
2.7 Public space users.....	32
2.8 Location of public spaces.....	35
2.9 Factors that affect the functionality of public spaces	36
2.9.1 Accessibility in public open spaces.....	36
2.9.2 Public space management	39
2.9.3 Ownership	42
2.9.4 Physical design and planning	44
2.9.5 Human comfort.....	48
2.10 Conclusion	55
3 CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY	59

3.1	Introduction	59
3.2	Research approach.....	59
3.3	Research design.....	61
	3.3.1 Case study strategy.....	62
3.4	Research methods.....	64
	3.4.1 Graphic and other visual approaches (cognitive maps)	64
	3.4.2 Interviews	67
	3.4.3 Participant observation	72
	3.4.4 Document review/analysis	73
3.5	Data analysis and interpretation.....	74
3.6	Ethical consideration.....	76
3.7	Research limitations.....	78
3.8	Conclusion	78
4	CHAPTER FOUR: CONTEXTUAL ANALYSIS OF THE STUDY AREA.....	80
4.1	Introduction	80
4.2	The historical background of Duncan Village	80
4.3	Geographical context.....	83
	4.3.1 Regional context.....	83
4.4	Local context.....	84
4.5	Spatial structure and description	85
	4.5.1 General character of the neighbourhoods.....	86
4.6	Public spaces.....	92
	4.6.1 Douglas Smith Highway and Jabavu Street.....	93
	4.6.2 Sport facilities.....	94
	4.6.3 Duncan Village arts and culture centre and community centre	96
4.7	Housing structures	97
	4.7.1 Formal housing units	97
	4.7.2 Informal housing units	98
4.8	Land uses	100
4.9	Land issues.....	100
	4.9.1 Land ownership.....	101
	4.9.2 Land development areas for public spaces.....	101
4.10	Socio-economic profile.....	102
	4.10.1 Population	102
	4.10.2 Age.....	103
	4.10.3 Gender	103
	4.10.4 Security concerns in Duncan Village	104
	4.10.5 Income	105
	4.10.6 Race.....	106
4.11	Environmental analysis	107
	4.11.1 Climate.....	107
4.12	BCMM public space development strategy/policy	109
	4.12.1 Buffalo City Metropolitan Municipality integrated development plan (2016/2017)	109
	4.12.2 Duncan Village local spatial development framework (DV LSDF), (2008) 110	110
4.13	Conclusion	110
5	CHAPTER FIVE: DATA ANALYSIS AND FINDINGS	112
5.1	Introduction	112
5.2	Community perceptions about public spaces in Duncan Village.....	112

5.2.1	Factors affecting the functionality of public spaces in Duncan Village...	116
5.3	Experiences of users towards existing streets (public spaces)	123
5.3.1	Importance of streets.....	123
5.3.2	Public space users	129
5.4	Preferences of residents	133
5.4.1	Types of spaces residents prefer.....	133
5.4.2	Preferred locations of types of public spaces.....	153
5.4.3	Activities preferred by space users	156
5.4.4	Planning and design of public spaces.....	161
5.5	Conclusion	162
6	CHAPTER SIX: DISCUSSION OF RESEARCH RESULTS	165
6.1	Introduction	165
6.2	Community perceptions about public spaces	165
6.2.1	Factors that affected the functionality of public spaces in Duncan Village 166	
6.3	Experiences of space users towards existing streets (public spaces).....	169
6.3.1	Importance of streets.....	169
6.3.2	Public space users	171
6.4	Preferences of residents	174
6.4.1	Types of spaces residents prefer.....	174
6.4.2	Preferred locations of types of public spaces.....	178
6.4.3	Activities preferred by space users	179
6.4.4	Planning and designing of public spaces	181
6.5	Conclusion	182
7	CHAPTER SEVEN: CONCLUSION.....	183
7.1	Introduction	183
7.2	Summary of the findings	183
(a)	To identify the factors that affect the functionality of existing spaces as perceived by the residents	184
(b)	To determine the preferences of residents in terms of the functions and types of spaces in Duncan Village	185
(c)	To identify the relationship between the activities taking place within the spaces and how it is experienced	186
7.3	The implications of the research	187
7.4	Future research	190
7.5	Closing remarks.....	191
8	REFERENCES.....	192

LIST OF PLANS

Plan 3-1:	Cognitive map showed locations of preferred spaces	66
Plan 4-1:	Locality in regional context.....	84
Plan 4-2:	Local context.....	85
Plan 4-3:	Spatial structure	86
Plan 4-4:	Duncan Village East.....	88
Plan 4-5:	Duncan Village Central	90
Plan 4-6:	Duncan Village West.....	91
Plan 4-7:	Green structure	93
Plan 4-8:	Community Facilities	97
Plan 4-9:	Dwelling structure	99
Plan 4-10:	Land use.....	100

Plan 4-11: Land developable units	102
Plan 5-1: Streets	138
Plan 5-2: Gwentsha memorial park drawn by one of participants	143
Plan 5-3: Gwentsha memorial park drawn by one of participants	144
Plan 5-4: Final Gwentsha memorial park.....	144
Plan 5-5: Plaza sketch design by a participant	148
Plan 5-6: Plaza sketch design by a participant	149
Plan 5-7: Plaza sketch design	150
Plan 5-8: Sport complex.....	152
Plan 5-9: Preferred location of plaza	155
Plan 5-10: Preferred location of park.....	156

LIST OF FIGURES

Figure 2-1: Factors / attributes that make public spaces great environment for community	12
Figure 2-2: Benefits of quality public spaces	19
Figure 2-3: Characteristics of the neighbourhoods' commercial street	25
Figure 2-4: The relationship between environmental quality and human activity	31
Figure 2-5: The relationship between environmental quality and human activity	39
Figure 2-6: Access control and surveillance classification	54
Figure 4-1: Church surrounded with informal housing	88
Figure 4-2: Community hall	88
Figure 4-3: DV Central Informal housing	90
Figure 4-4: DV Central street	90
Figure 4-5: Formal housing	90
Figure 4-6: Backyard shacks in DV Central.....	90
Figure 4-7: Green space	92
Figure 4-8: Green space	92
Figure 4-9: Open space with containers	92
Figure 4-10: Open space	92
Figure 4-11: Douglas Smit Highway across river.....	94
Figure 4-12: Walkway that connects DV and Braelyn.....	94
Figure 4-13: Gompo stadium.....	95
Figure 4-14: Basket ball ground	96
Figure 4-15: DV Community centre	96
Figure 4-16: DV arts and culture centre	96
Figure 4-17: Shakes in Duncan Village Proper.....	99
Figure 4-18: Shacks on riverbed, DV Central	99
Figure 4-19: Formal dwelling, Duncan Village West	99
Figure 4-20: Formal dwelling, DV West.....	99
Figure 5-1: Informal trading along Douglas Smith Highway	115
Figure 5-2: Street vending along Jabavu Street	115
Figure 5-3: Waste along street	120
Figure 5-4: Waste along street	120
Figure 5-5: Basket ball ground from Nomzamo secondary school.....	131
Figure 5-6: Children playing in the street.....	133
Figure 5-7: Children playing in the streets	133
Figure 5-8: Adults.....	133
Figure 5-9: Informal trading along Douglas Smith Highway	160
Figure 5-10: Informal carwash along Douglas Smith Highway.....	160
Figure 5-11: Second hand clothes trading along Jabavu Street	160
Figure 5-12: Street vending along Douglas Smith Highway	160
Figure 5-13: Formal Spaza Shop along Douglas Smith Highway	160

Figure 5-14: Street Vending along Jabavu Street.....	160
Table 7-1: Design and planning implications	187

TABLES

Table 2.1: Different end user groups and community needs	15
Table 2.2: Types of public spaces	20
Table 2.3: Open space typology	22
Table 2.4: Open space typology	27
Table 2.5: Effective factors on accessibility to urban spaces	40
Table 2.6: Typologies of public spaces	57
Table 3.1: Research variables	75
Table 4.1: Land development areas	101
Table 4.2: Age group	103
Table 4.3: Crime against person (contact crime) in Duncan Village	105
Table 4.4: Climatic Conditions	107
Table 7.1: Design and planning implications	187

ANNEXURES

Annexure A: Informed consent letter	199
Annexure B: Interview schedule	200

1 CHAPTER ONE: BACKGROUND OF THE STUDY

1.1 Introduction

The perceptions and experiences of people towards different types of public spaces have been comprehensively explored in Western countries by for example Sugiyama, 2008; Roose, 2007; Joseph and Sirgy, 2000. In these studies, several factors such as socio-economic background, management, planning and designing were taken into account to identify the users' preferences with regard to the creation of different types of public spaces and the activities that would be associated with those public spaces (Fataar, 2017:3) and Wantouw et al. (2014:43).

According to Gehl (1996), a high quality public open space can play a significant role in encouraging people to stay longer within public settings provided that they offer a variety of activities that meet users' needs and preferences. Nasution and Zahrah (2014) identified that the usability of different types of public spaces is relying heavily on the ability of spaces to meet public space user's needs, preferences and perceptions.

Public open spaces are targeted towards both community residents and visitors, and are therefore reasonably accessible to public use, while private open spaces such as gardens and yards are completely planned for owners' use (Jurkovič, 2014). Urban open space consisting of both green and non-green areas that are planned to meet various needs of residents and visitors also plays a significant role in influencing a sense of community among the residents.

The residents' perceptions of different types of public spaces (such as green and non-green spaces) can also symbolize a sentimental attachment to the surroundings (Lo and Jim, 2010). Green spaces promote a positive human attitude towards the environment that is crucial in establishing linkages in the nature-society complex (Lo and Jim, 2010). Jurkovič (2014) maintains that different meanings and functions of urban open spaces play a significant role in establishing connections between a space and an individual as a user. People generally connect with their physical and social environments and are attracted to public open spaces when the environment plays a fundamental role in becoming an essential component of their everyday lives and meets their preferences, needs and expectations. Carr et al. (1992) considered that different aspects of public open spaces are revealed in a number of opportunities that are provided to users; and they are reflected in responsive, democratic and meaningful public spaces. According to Carr et al (1992) responsive public spaces promote different users' requirements, such as comfort, relaxation, active and passive engagement, discovery and socialising. Integrated open spaces, also known as "democratic spaces", play

significant roles in influencing or promoting different uses that can be accessible to different groups of people within the community (Carr et al. 1992:123). Carr et al. (1992) hold that space can be meaningful when there is a strong connection between the environment and the users. Jurkovič, (2014) stresses that within residential neighbourhoods, a sense of community and safety or security is promoted by a person that is connected to society by the use of local services and through socializing. Therefore, open spaces within residential neighbourhoods play a fundamental role in influencing and encouraging residents to socialize and connect and through this, they promote a sense of community among the residents.

Jurkovič (2014) is of the view that the human environment is made up of two aspects: the physical environment of everyday life and the social environment of mutual relations. According to Jurkovič (2014), the perceptions, experience, use and behaviour of residents are influenced by demographic, social, psychological and cultural factors. Jurkovič (2014) stresses that the behaviour of users within a particular built environment space cannot be determined outside the setting in which it occurs because both comprise a part of the whole. Therefore, Jurkovič (2014) points out that the focus of study is not a user's behaviour in itself, but rather the behavioural setting. Without taking into account the principles of human experience (the psychological aspect) and the environment (the environmental - spatial aspect), the planners, urban designers and government are unable to improve the liveable public open spaces within the community.

Taking into account the experience, perception, preferences and use of open space by community residents during planning and design phases plays a fundamental role in successfully implementing user-friendly spatial planning within a built environment setting (Jurkovič, 2014:24). Since users' experiences and values are not directly visible, planners often overlook them and this will result in planning public open spaces that might not meet local users' needs and requirements. This is exactly why studying these aspects is important since they play a major role in achieving quality spatial planning that suits people's preferences, needs and requirements.

Dooling et al. (2006:17) are of the view that understanding community needs, preferences and expectations in public spaces has important policy and cost-effectiveness implications. According to Lo and Jim (2010), the provision of public spaces consists of the issues that have to do with the distributional justice and utilization rate in different parts of a city. Jay and Schraml, (2009) identified that assessing user feedback, attitude and behavior could play a significant role in assisting in the planning and designing of public spaces that are socially

relevant and inclusive. Lo and Jim (2010) indicate that users are not passive participants, instead, they enliven public spaces which in turn activate the community. Public spaces that are failing to meet the user needs should be restored and regenerated in order to encompass humanistic dimensions (Lo and Jim, 2010). In the mission to have sustainable cities and improved urban life, one should factor in the social and psychological benefits that public spaces offer users, in addition to their more obvious environmental and ecological functions (Jay and Schraml, 2009).

1.2 Rationale of the study

This study focuses on Duncan Village Township in the City of East London within the jurisdiction of the Buffalo City Metropolitan Municipality (BCMM). Duncan Village is one of townships within the City of East London where public spaces are completely ignored, with infrastructure that is shamefully inadequate to meet the needs of the local people. The area is overcrowded, making it difficult for the Buffalo City Metropolitan Municipality to provide adequate and sustainable public spaces to benefit the local residents in economic, social and environmental terms. The physical arrangements of three neighbourhoods within the Duncan Village play a role in influencing dysfunctional public life. Some pockets of suitable land which had been earmarked for public space development were occupied by informal settlements. The sprawling of informal settlements within Duncan Village raises concerns with regard to the creation of a conducive environment to promote the development of different types of public spaces to meet local people's needs and preferences and also influence public life, social life and a sense of community among the residents of Duncan Village. Given this, it is important to ascertain the views (perceptions) and experiences of the community regarding the roles of public spaces in Duncan Village.

Public spaces are regarded as vital components of the urban environment that have an influence on meeting people's needs and preferences, vivid public life, social life and sense of community among the residents (Francis et al. 2012). Apart from streets of different sizes which are in bad state, Duncan Village has no other types of public spaces that can be utilised by local residents. Their economic, social and environmental needs in this regard can only be met by having well planned and specifically designed public spaces. The state of existing public spaces does not support vivid public life, economic, social, environmental benefits and sense of community among residents of Duncan Village. To support the previous statement, during public participation sessions conducted by Aspire (Amathole District Municipality development

Agency) in 2015, councilors and community members raised serious issues concerning the state of existing public spaces (streets) within Duncan Village. They further indicated that the municipality is failing to upgrade the existing public spaces and also revealed that there is a dire need for provision of other different types of public spaces. The geographical area under focus lacks spaces such as parks and plazas which could be deemed as gathering points. Montero (2001) notes that public places such as plazas represent a significant part of a city's cultural heritage and reflect essential historic information and community values. The PPS (2012) stressed that where public space is absent, inadequate, poorly designed, or privatized, the city can become increasingly segregated.

Duncan Village is an area that has the potential for urban qualities that influence urban density and liveable built environment settings to its local people. Another problem within Duncan Village is that public community life is limited due to the lack of public spaces that promote public life, social life and a sense of community among the residents. Because of the lack of proper planning and the congestion of land use activities in Duncan Village, the township's public life occurs wherever the space is available.

Duncan Village offers a number of activities and experiences to its local community but the current form of Duncan Village Township limits the opportunities for developing different types of quality public spaces to foster the attainment of local residents' needs, sense of community, social interaction, and public life.

The residents' perceptions towards different types of public spaces may differ. The perceptions of residents with regard to types of public spaces might be changing over time, meaning there might be a greater need and demand for provision of different types of quality public spaces that can play significant roles in meeting local residents' needs and preferences. Public space users may imagine that the existence of different types of public spaces can play a fundamental role in contributing to their daily public life.

To address the challenges mentioned above, there is a dire need for undertaking this research. The research can unpack different perceptions, experiences and preferences among the local residents towards different types of quality public spaces. The study explores what the residents of Duncan Village think about the significance of public spaces in terms of social, economic and environmental benefits provided by quality public spaces. This can play a significant role in planning and designing different types of public spaces that are in line with different perceptions

and experiences towards public spaces of the users. This study also plays a significant role in offering a thorough understanding of local residents' needs and preferences in terms of different types of quality public spaces that can be developed in Duncan Village and the activities that can be accommodated in the public spaces preferred by local public space users.

The study area also lacks planning and designing of public spaces that can meet community's needs, and understanding community's needs and preferences play significant roles in the provision of different types of public spaces that contribute greatly to community's lives in terms of economic, social, recreational and environmental and ecological development.

1.3 Research aim and objectives

1.3.1 Aim of the study

The research aims to investigate the perceptions, experiences, and preferences of local residents in Duncan village towards different types and configurations of public spaces that would be able to fulfill a range of local needs in the area.

1.3.2 Research objectives

In order to address the above concerns, the objectives of this research study are as follows:

1. To identify the factors that affect the functionality of existing spaces as perceived by the residents.
2. To identify the relationship between the activities taking place within the spaces and how it is experienced.
3. To determine the preferences of residents in terms of the functions and types of spaces in Duncan Village.

1.4 Scope of the study

The study is based on the perceptions, experiences, and preferences of the residents towards different types of public spaces to among other contribute to a sense of community within Duncan Village Township, located in East London under the municipal jurisdiction of Buffalo City Metropolitan Municipality. The research is restricted to the case study of Duncan Village only.

1.5 Research methods

The research is conducted using a qualitative approach which is explanatory and descriptive in nature. Creswell (2014:32) explains that qualitative research is an approach used to explore and understand the meaning individuals or groups assign to a societal or individual problem within a specific community. Furthermore, the qualitative research process promotes the emergence of research questions and procedures. Data is typically gathered in the participant's location, data analysis is inductively structured from particular to general themes, and the researcher puts together interpretations of the meaning of the data collected. In terms of the explanatory and descriptive approach utilised in the study, this methodology is very well suited to the study since there is limited knowledge and information available on the perceptions, preferences and experiences of Duncan Village residents towards different types of public spaces. Maxwell (2012:13), and Remler and Van Ryzin (2011:18) recommend that an exploratory and descriptive study be conducted if a researcher aims to thoroughly comprehend the nature of the existing problems.

Chapter 3 of this study offers a thorough description of the research methodology of this research.

1.6 Structure of the research report

This research report consists of seven (7) chapters described below:

Chapter 1: The chapter entails the background of the research, the research problem, the research aim and objectives. The chapter briefly describes the scope of the research and research methods as well as the outline of the research report.

Chapter 2: This chapter deals with the literature review, which seeks to explore the existing body of knowledge in terms of the perceptions, preferences and experiences of residents towards different types of public spaces. The chapter, in brief, defines public spaces. It further discusses the community perceptions towards public spaces, the need for public spaces, the typology of public spaces, activities and uses of public spaces, the factors that affect the functionality of public spaces, and the location of public spaces.

Chapter 3: The chapter covers the research methods used to gather data in order to achieve the objectives of the research. The research uses a qualitative approach, and four main research methods were adopted, namely: cognitive mapping, document review, participant

observation and interviews (semi-structured and focus group interviews). This chapter further indicates the sampling method and size, data analysis and interpretations, ethical considerations, limitations and challenges encountered during the use of the above approaches in terms of data collection.

Chapter 4: This chapter describes the historical background, and the regional and local context of Duncan Village. This chapter also provides a brief overview of the spatial structure, public spaces in Duncan Village, dwelling types and structures, land uses, land issues, socio-economic profile, policy for public space development in Buffalo City Metropolitan Municipality (BCMM), infrastructure, and environmental analysis.

Chapter 5: The chapter presents the findings of the study. This chapter involves the analysis of the findings obtained from the study area with a view to responding to and addressing the objectives of the research.

Chapter 6: The chapter contains the discussion of findings of the study.

Chapter 7: The chapter presents the conclusion of the research study. The chapter clearly indicates how the research objectives were achieved and provides implications for design, planning and development in practice.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant published and unpublished documents on academic fields such as urban planning, geography, urban design, architecture, economics, history and political science in both developed and developing countries. The literature was developed in order to gain insight into public spaces. A number of books and academic journals have been used for the literature review. The specific objective of this literature review is to investigate the various issues, such as definition of public space, the qualities of public space, the use, and the types.

2.2 Definition of public space

According to Carr et al, (1992) public space is defined as “open, publicly accessible places” that play a fundamental role in providing for popular activities which are necessary for community building. Carmona et al. (2008) define a public space as all those parts of the built and natural environment where the public is allowed to have free access. Benson et al. (2007) elaborate further on the above definitions by explaining that public spaces comprise outdoor surroundings that normally provide relief from urban chaotic life and also influence social interaction among residents. These public spaces include sidewalks, streets, parks, city halls, squares, plazas and other types of gathering spaces that provide for the public life of the community.

A number of authors (Carmona, 2010; Mitchell, 1995 and CABE, 2004) have identified common characteristics found in public spaces. Carmona, (2010) defines public spaces as built environmental settings that are open to all for societal integration, places that provide safety, sociability, comfort and freedom of movement, places where people of different ethnic groups, race, age, gender and socio-economic backgrounds can meet and interact with each other, whilst enjoying the recreational benefits provided by the natural and man-made environment.

The public spaces are normally vegetated and are places where community members can conduct public, cultural and societal activities (Benson et al., 2007). These spaces have liveable settings which play a vital role in creating a unique sense of community. Public spaces are a harbour for public life that encourages a sense of community, a sense of place, allows people to connect with each other, and as a result generates a sense of belonging within the particular society (Watson et al. 2006). Public spaces facilitate the chance for people to come together and benefit from experiences with others. Public spaces promote cities' economic development

that allow the life of the local community members to be uplifted, and also contributes extensively to the land use values of a city. Frequently, public spaces provide an opportunity to public space users to be free from the vehicular-orientated life within the city centres and offer freedom of movement to pedestrians. Public spaces foster green spaces which have positive impacts on climate change. The existence of green spaces in the city promotes people's gratitude and understanding of the natural environment and offers shelter for urban animals (Prezza et al. 2001:56).

In contemporary urban environments public open spaces such as plazas, parks, sidewalks, and other public or semi-public places play a crucial role in offering needed spaces in which the public can manoeuvre through the landscape, socialize, and otherwise participate in the urban civic sphere (Al-hagla, 2008; Carmona, 2010b; Jacobs, 1961; and Mitchell, 2003).

The above information shows that the concept of public space has been defined and described in various approaches. There are different ways in which researchers think about the definition and description of public spaces. Vedrédi, (2014:35) indicates that these various approaches may arise from a variety of the researcher's ideas, from his or her personal experiences, from the researcher's area of expertise or from the research perspective. Because the research is about the perceptions, experiences and preferences of local people towards different types of public spaces, knowing the definitions of public space helps to unpack the importance of public spaces within societies and how they play a significant role in meeting local residents' needs and preferences. The definitions further indicate that one crucial aspect is that public spaces must be viewed as being open and usable settings for all space users. The definitions of public spaces described above indicate that it is difficult to offer an exact definition of public space. It can be impractical to make use of one worldwide "public space" concept; it might be more effective to come up with a definition of public space which is in line with the given research and relevant to the tangible subject matter. Apart from the previous statement, public spaces and their use changes from day to day and this changing role requires constantly re-evaluating the functions offered by public spaces (Vedrédi, 2014). Therefore, for the purpose of the study, it is regarded as important for public spaces to be described and defined as a collection of concepts that will play a significant role in providing a more comprehensive understanding (Nasution and Zahrah, 2012 and Carmona, 2010).

The researcher concludes that the work of different authors and researchers strengthens the idea that public space is a very complex and diverse concept where its meaning and role

changes continuously and everyone perceives public spaces differently. It is also indicated that different perceptions can change but depends on the change by time.

2.2.1 Physical and functional qualities of public spaces

Montero (2001) stressed that public spaces usually have physical and functional conditions that have the potential to favourably or unfavourably foster and influence social interaction, people's comfort and security, all of which can attract people to the surroundings. Montero (2001) further stressed that the physical and functional qualities of a public space are linked to the physical amenities, the activities, the accessibility conditions, the location characteristics of the public space and the surrounding land uses that have the ability to support the activities which are developed in it. This influences the public spaces' capacity to meet the community's needs and preferences and encourage and foster a sense of community, social interaction, livability and comfort. Studies conducted by Farahani and Lozanovska, (2014); PPS, (2000); Whyte, (1980) and Gehl (1996) revealed factors that influence the community's needs and preferences to be met in public spaces, which provide a theoretical base and questions to public space users.

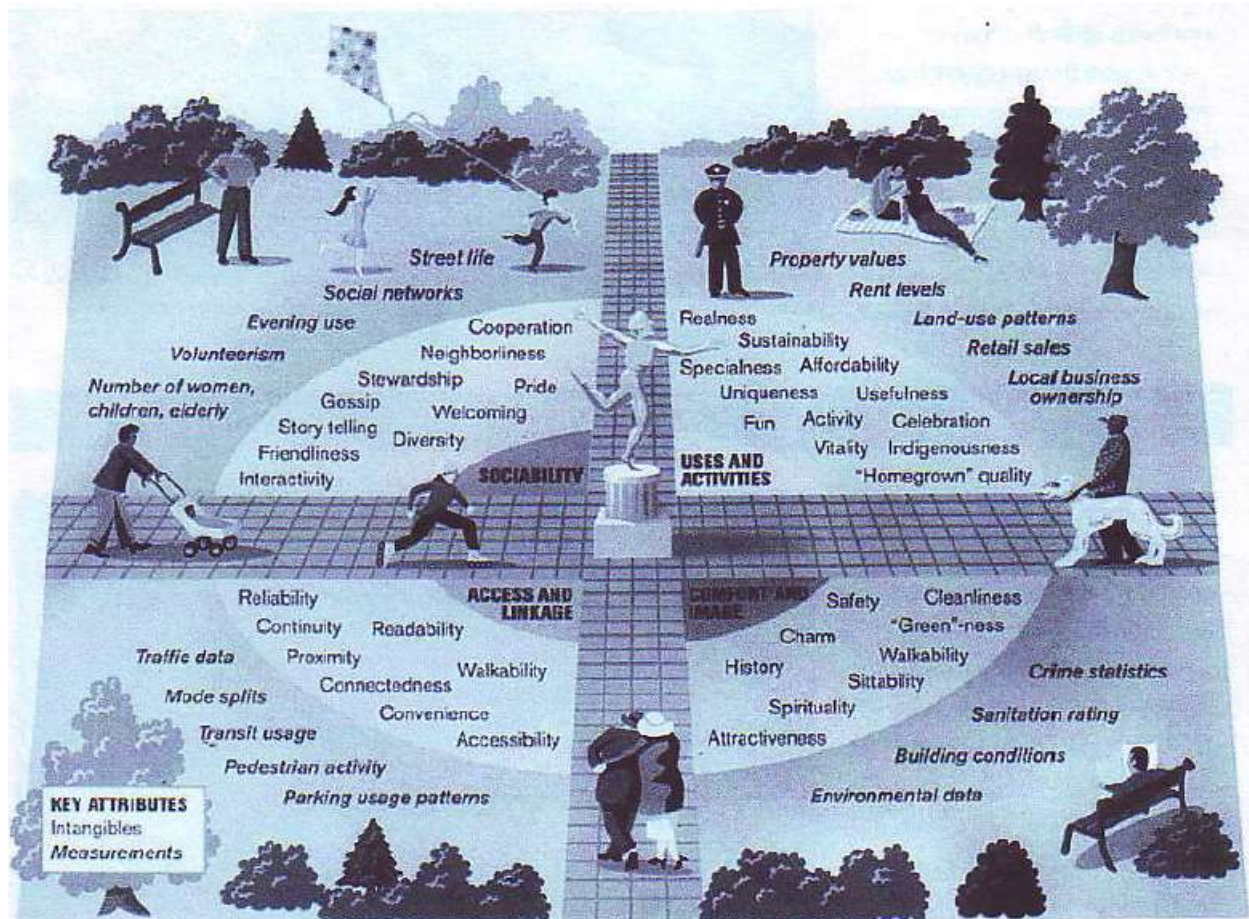
As Montero (2001) maintains, any well planned and designed public spaces should have the potential to offer qualitatively functional attributes. Well planned and designed public spaces must be able to offer a set of physical conditions, which can play a pivotal role in encouraging and promoting community's needs to be addressed. A study conducted by Montero (2001) found that public spaces that are lively and frequently visited by people are locations where people can connect passively with the environment by looking at others, they offer many sitting spaces, are accessible for people, they contain public art and natural features such as water fountains and waterfalls. Whyte (1980) adds that food, retail activities and programmed events have the ability to attract people to urban spaces. Visibility also plays an important role in increasing the sense of security of public spaces and for that reason; it is an important factor in determining the popularity of public spaces. These identified functional and physical attributes play a pivotal role in giving character to public spaces and they also foster a sense of community, and contribute to the comfort and enjoyment of people (Montero, 2001). She further indicates that these qualities also encourage people's behaviour, experience and well being in those public spaces. Whyte (1980) is of the view that by observing and interviewing people and gathering information from them, it is likely to be able to comprehend how the attributes mentioned above can influence the preferences, perceptions, experiences, sense of community,

social life and success of a place and thus knowing the public space user is regarded as important.

Pierce (1978) advocates for active community participation to be conducted when public spaces are developed and for a clear redesign program to be implemented based on people's needs, appropriate management programs of public spaces and also the coordination of attractive events and activities in a public space with active public uses in the surrounding area. The most important objective is to meet people's satisfaction in public spaces.

PPS (2000) noted that spaces which are regarded as great for people should encompass the following four principles which are: (1) sociability; (2) uses and activities; (3) access and linkage and (4) comfort and image. Access is described as the possibility of a space to be easy to get to and to be visible while one is approaching from far distances of the environment. Circulation is characterised by physical elements in the space that are viewed as functional and safe for people. Public space users prefer the favorable spaces that provide access for the physically challenged, for children and the elderly and have sufficient parking spaces and connection to public transportation systems (Montero, 2001). As held by PPS (2000) that comfort and image is linked to how the public space is physically and spatially arranged. Good maintenance and management of public spaces are considered to be positive conditions which influence and promote positively the perception of sense of community, comfort and the image of security of a space. The character and charm of public places have potential to be easily recognized and attract a larger number of people to the site (PPS, 2000). It is opined by Montero (2001) that these spaces offer choices for sitting or walking and offer a favourable image of community life which attracts public to the settings. In terms of uses and activities, Montero (2001) views them as the attributes that play a role in attracting people to go to public spaces again and again. PPS, (2000) indicates that when activities are no longer there or missing, a space will be empty and unused, and creating an impression that something is wrong. Montero (2001) and PPS, (2000) indicate that public spaces must have the potential to foster community's needs and preferences, and social interaction or sociability. When people come together to interact with friends and family and feel comfortable socializing with strangers, they will feel a stronger sense of place and sense of belonging to the community (Montero, 2001).

Figure 2-1: Factors / attributes that make public spaces great environment for community



Source: PPS (2000:56)

From figure 2-1 above, PPS (2000) indicates that sociability, uses and activities, access and linkage and as well as comfort and image are the main attributes of successful public spaces within neighbourhoods. These attributes play a vital role in influencing and fostering community's needs and preferences, vivid public life and social life, sense of community, sense of identity among local residents to be met in different types of public spaces.

Montero (2001) stressed that public spaces that are planned and designed for visual and aesthetic appeal might be beautiful and well-tended, but will not automatically guarantee comfort; people use and meet a wide range of people's needs in those spaces. According to PPS, (2000), when spaces are empty, vandalized, or used by undesirables, it normally indicates that something is wrong with the planning, design and management. PPS (2000) identifies the following characteristics or factors that play a role in some public places that fail to attract users:

- Shortage of facilities such as benches or seating areas.
- Shortage of areas that act as gathering points like playgrounds.
- Poorly designed entrances that drive users away because they are either visually unappealing or inaccessible.
- Dysfunctional elements such as benches or paths that are more focused on visual or aesthetic appeal than functionality.
- Poorly sited walkways which do not take the users directly to specific areas.
- Public spaces that are planned and designed for vehicle orientated public settings and don't promote safe and comfortable movement for public space users.
- Streets that do not offer activities to user.
- Public transit stops that are located inconveniently.
- Public spaces with activities that are not exciting or attractive to users.

According to Whyte (1980), the presence of “triangular” events is regarded as a very important issue for making great public spaces that meet the community’s needs and preferences (economic benefits, social interaction and environmental benefits). Whyte (1980) defined triangulation as a process whereby some external stimulus play a significant role in providing linkage between people and prompts strangers to talk to other strangers as if they knew each other.

The best public spaces are described as settings that contain activities that bring people together and meet the community’s needs and preferences (Montero, 2001). For public spaces to be considered successful, the functional and physical characteristics of public spaces must meet community’s needs and preferences and foster vivid public life. Based on the information above, it can be concluded that the favourable functional and physical conditions of public spaces are seen as vitally important since they play a crucial role in encouraging and influencing social interaction, building a sense of community, catering for people’s comfort and security, promoting recreational activities and optional activities to take space and in general enhancing the quality of life of public space users. Some questions that were asked to the public space users in this research were derived from the understanding of the activities and physical conditions that attract people to a setting. For the purpose of this research, the functional and physical characteristics of public spaces play a fundamental role in assisting public space users to draw their perceptions, preferences and experiences towards different types of existing public spaces. On the other hand, public spaces contribute to how public space users perceive the importance of public spaces in meeting their needs and preferences. The experiences of public

space users drawn from the quality of functional and physical characteristics of public spaces contribute immensely in the regeneration or upgrading of existing public spaces and also in developing new public spaces.

2.3 Community perceptions about public spaces in townships

Wantouw et al. (2014) argue that perception is an active tool which needs a genuine encounter with a thing and cognitive and emotional processes. Perception plays a significant role in assisting people to illustrate and give details of their required activities. Perception is also derived from all sorts of personal experiences.

Fataar (2017:1) is of the view that different types of public spaces in South Africa are very complex since they play major roles in influencing users to have different perceptions towards a wide range of public spaces. This makes it difficult to define the concept of public space. It is opined by Fataar (2017:1) that public space users, planners and designers need to get a proper understanding of different types of public spaces that form part of the public realm within the urban areas, and also to critically identify where public spaces can be fitted into future definitions of public space that incorporate the social, economic and environmental benefits among the public space users. The public spaces that are perceived to be important in South African townships are parks, plazas and streets (Fataar, 2017:1).

Without a doubt, different community members have different ways to perceive public spaces and also public spaces are used differently within the societies. Different views on public open spaces can play a major role in encouraging planners and designers to provide different types of public spaces that will be accepted by the residents and also these spaces should be able to meet the needs and preferences of local residents. It is indicated that how the residents perceive public open space may play a role in affecting the way in which those certain public open spaces are utilized by community members (PPS, 2014:56). In the research of (PPS, 2012) public space users perceived that public spaces play a significant role in fostering the quality of public life, social development, economic development and environmental development.

Depending on race, gender, age, and income status public space users perceive differently the way in which public spaces should be planned and designed in order to meet their range of needs and preferences within their societies. Different views regarding the significance of public

spaces should be raised during the planning and designing of public settings within the neighbourhoods. This can be playing a vital role in different public spaces to be accepted by the users. The success of public space is determined by general acceptance by the community. To support the previous statement, Aberdeen City Council (2010) is of the view that the success of public spaces relies on their quality and general acceptance by communities.

As Fataar (2017:2) maintains, different perceptions of public spaces are also influenced by the planning, designing, management and ownership. The public space should be planned and designed in a way that unpacks different public space users' identities, and play significant roles in serving the needs of different community members.

Community perceptions towards different types of public spaces indicate a sentimental connection to their built environment surroundings. Alex and Jim (2010) are of the view that community perception can be regarded as a subjective expression which indicates the linkages that exist within the socio-economic society. As indicated by Alex and Jim (2010:2) community perceptions are derived from past experience and memory, value and beliefs, and local culture and history.

The social, economic and environmental benefits offered by different types of public spaces play significant roles in influencing people to have different perceptions of public spaces. Safety and security, lively and well managed public spaces are seen as factors that also promote different perceptions towards different types of public spaces by users.

Community perceptions towards the public spaces are created by understanding and knowing a wide range of community needs, preferences and expectations.

The planning and design of public spaces must reflect the needs of the public space users in each society. Failing to incorporate these community needs in planning and design, the public space may be underutilized by community residents, and these public spaces will be considered as failures. It is one of the critical issues that need to be explored from Duncan Village's perspective. CSIR (2005) identified a list of resident needs within different age groups and vulnerable groups indicated in the Table 2.1 below.

Table 2-1: Different end user groups and community needs

Age Group	Safety	Sports & Recreation	Passive and Active Engagement	Shelter	Comfort & Nature
2-5yrs	✓	✓	-	-	-
6-12 yrs	✓	✓	-	-	-
13-19 yrs	-	✓	✓	-	-
20-55 yrs	-	✓	✓	-	-
Elderly	-	✓	✓	✓	✓
Women	✓	-	-	✓	✓
Disabled	✓	-	-	-	✓
Homeless	-	-	-	✓	✓
Workers	-	-	✓	✓	✓

Source: CSIR (2005:24)

Community members perceive that provision and existence of different types of public spaces within the neighbourhood play significant roles in ensuring that the needs and preferences of different public space users are met. Moreover, the activities offered by different types of public spaces contribute immensely in ways the users assume that public spaces offer positive contributions that play significant roles in meeting people's needs and preferences. Amongst different age groups, race and gender groups' assumptions differ about the influence and value of public spaces within society. Syafriny et al (2009:37) are of the opinion that certain ethnic groups living in the urban neighbourhood prefer to create their own public space in the neighbourhood so that they can meet what is expected by community members in terms of social, economic and environmental development within the society. The statement indicates that the existence of public spaces in the neighbourhood is influenced by different perceptions of the particular users.

Community perceptions differ when looking at socio-economic differentiation that exists within different neighbourhoods. Community's perception of different types of public spaces frequently broadens through the personal circumstances of users and cognitive response to social, economic and environmental goods (Alex and Jim, 2010). It acts as an instrument that can be utilized as a catalyst for public space users' approach towards achieving the fundamental social, economic and environmental framework which leads to sustainable development of the community areas.

2.4 The need for public spaces in the community

Currently South African cities and neighbourhoods are struggling as a result of economic instability, diminishing resources, unemployment, demographic shifts and political complexities. Within many neighbourhoods, social bonds among neighbours are under stress and in many

communities, a real sense of community is lacking. Although there may not be a magic bullet to solve communities' complex social, economic and environmental challenges, there is promising potential in the seemingly unexpected spot called public places. Through implementing a people-centric approach to plan, design and revitalize public places such as neighbourhood parks, streets, community markets and plazas, public spaces have the ability to effectively transform the hearts of local communities (PPS, 2014: 22).

Public open spaces offer a number of benefits to its users. PPS (2014), CABE (2004), Ndaba and Landman (2014) and Carmona (2010) emphasize the importance of public spaces as being spaces that are “multifunctional” in nature, with regard to the numerous socio-cultural, environmental, political and economic benefits that such spaces offer to the communities where they are situated.

PPS (2014) maintains that public spaces are built environment settings where community comes alive, where bonds among neighbours are strengthened and where a sense of belonging is influenced and fostered among the residents. They are settings that effectively foster economic development and influence environmental sustainability (Pollock, 2014:38). From the previous statement, it is clear that proper planned and designed public spaces play a significant role in making sure that the needs and preferences of public space users are met when they visit different types of public spaces. Economic development is regarded as the first priority within Duncan Village and having public spaces that allow living conditions of local people to be uplifted is of paramount important. The future of communities and cities depends on great public spaces that are planned and designed by both professionals and residents and more particularly, on placemaking, a powerful approach that is used to establish and revitalize public spaces around the specific needs and desires of the community (CABE Space, 2008:15). For planning and designing of public spaces, it is important to engage the local community in development processes since they have the tactical knowledge of what types of public spaces they want and how these public spaces are going to assist in meeting their needs and preferences. In terms of revitalization or regeneration of existing public spaces, the community members play a role in identifying their experiences with existing public settings and these experiences assist in bringing about upgrading if required. According to PPS (2014: 34) placemaking is “the art and science of developing public spaces that attract people, build community by bringing people together, and create local identity.” The importance of this process is based on laying emphasis on putting people's needs and aspirations first during the process of planning, designing and improving public spaces. Placemaking identifies that

although planners can give a place structure and access, it is the community that gives it heart and vibrancy (PPS, 2014: 23).

Public spaces promote a sense of community and sense of belonging among the residents. According to CABE Space (2008:27), sense of community and sense of belonging play a significant role in creating vibrant, sustainable and economically secure destinations that the public love to visit. PPS (2014:9) is of the view that placemaking can be regarded as a transformative means of influencing and fostering that sense of community and also sparking social, economic, environmental and cultural benefits within the society.

The culture of local communities and new life into distressed neighbourhoods can be reinvented by creating strong public places that generate profound pride and belonging and spark economic development (PPS, 2014:29).

The need for public spaces in the community has been addressed in this study because good quality public spaces are considered to be a necessity for every community as these spaces serve as catalyst which speeds up the social, environmental and economic development and promotes a sense of community and sense of belonging among the residents. Public spaces have the ability to transform local communities, and generate pride and a sense of belonging that translates into sustainability, economic development and increased quality of life (CABE Space 2009:21). In order for communities to fully enjoy the benefits offered by well planned and designed public spaces, the community members must be at liberty to choose the types of public open spaces that effectively meet their preferences and needs. There are also many stakeholders and circumstances e.g. limited budgets, to be taken into account.

For the purpose of the study, the need for public spaces arises due to the fact that they can contribute immensely to economic, social and environmental development if they are planned, designed and managed in a way which allows them to be accepted by the residents and regarded as quality public spaces that were created by both professionals and community members. In some areas of South Africa like Duncan Village, public open spaces can play a significant role in uplifting the living standard of the residents because Duncan Village is one of the South African townships characterized by high rates of poverty, unemployment and crime.

Figure 2-2: Benefits of quality public spaces



Source: PPS (2012:15)

The figure 2.2 above articulates a number of benefits offered by well planned and designed public spaces. Successful public spaces are judged based on the benefits that brought (Project for Public Spaces, 2012:37). In order for communities to enjoy the existence of public spaces, the above suggested benefits should be also provided in settings in order to meet the needs of local residents. To support the above figure 2.2, Pollock (2014:18) is of the view that public spaces should be designed and planned in a way that they promote accessibility, a sense of community, enhance the local economy, physical health and sense of comfort.

2.5 Typology of urban open spaces

It is opined by Sandalack and Uribe (2010) that the state of urban space clearly calls for systematic attention as a focus of study, to avoid the establishment of public space by default as is the case in much of the contemporary public realm. The development of a typology of urban

space can play a fundamental role in providing a way of analyzing existing public spaces and planning and designing new ones, as well as serving as an instrument for guiding urban design, planning and architecture (Sandalack and Uribe, 2010). Sandalack and Uribe (2010) hold that typology is defined as the study of elements that cannot be further reduced. A type is more of a principle that directs the establishment of public spaces and something according to which one can visualize works that do not automatically resemble one another (Sandalack and Uribe, 2010). Types in a built environment setting are developed according to both functional requirements and aesthetic considerations. A particular type is associated with a form as well as with a way of life within the society.

Carmona (2010a) identifies twenty types of public spaces carved from four categories namely: positive, negative, ambiguous, and private that represent continuums from public to private and from form/function to socio-cultural values.

Table 2-2: Types of public spaces

Space type	Distinguishing characteristics	Examples
<i>Positive' spaces</i>		
Natural/semi-natural Space	Natural and Semi-natural features Within urban areas, typically under state ownership	Rivers, natural features, seafronts, canals
Civic space	The traditional forms of urban space, open and available to all even if temporarily controlled	Streets, squares, promenades
Public open space	Managed open space, typically green and available and open to all, even if temporarily controlled	Parks, gardens, commons, urban forests, cemeteries
<i>Negative' spaces</i>		
Movement space	Space dominated by movement needs, largely for motorized transportation	Main roads, motorways, railways, underpasses
Service space	Space dominated by modern servicing requirement needs	Car parks, service yards
Left over space	Space left over after development, often designed without function	'SLOAP' (space left over after planning), Modernist open space
Undefined space	Undeveloped space, either abandoned or awaiting development	Redevelopment space, abandoned space, transient space
<i>Ambiguous spaces</i>		
Interchange space	Transport stops and interchanges, whether internal or external	Metros, bus interchanges, railway stations, bus/train stops
Public 'private' space	Seemingly public external space, in fact privately owned and to greater or lesser degrees controlled	Privately owned 'civic' space, business parks, church grounds
Conspicuous spaces	Public spaces designed to make strangers feel conspicuous and, potentially unwelcome	Cul-de-sacs, dummy gated enclaves
Internalized 'public' space	Formally public and external uses, Internalized and, often, privatized	Shopping/leisure malls, introspective mega-structures
Retail space	Privately owned but publicly accessible exchange spaces	Shops, covered markets, petrol stations

Third place spaces	Semi---public meeting and social places, public and private	Cafes, restaurants, libraries, town halls, religious buildings
Private 'public' space	Publicly owned, but functionally and user determined space	Institutional grounds, housing estates, university campuses
Visible private space	Physically private, but visually private space	Front gardens, allotments, gated squares
Interface spaces	Physically demarked but publicly accessible interfaces between public and private space	Street cafes, private pavement space
User selecting spaces	Spaces for selected groups, determined (and sometimes controlled) by age or activity	Skate parks, playgrounds, sports fields/grounds/courses
<i>Private space</i>		
Private open space	Physically private open space	Urban agricultural remnants, private woodlands
External private space	Physically private spaces, grounds and gardens	Gated streets/enclaves, private gardens, private sports clubs, parking courts
Internal private space	Private or business space	Offices, houses,

Source: Carmona (2010a: 37)

As it is seen in the table 2.2 above, Carmona's typology is difficult to implement in multiple cultural backgrounds across history because of the large number of types coupled with a detailed interpretation which might confuse the developers. For this reason, Stanley et al. (2012) offer a simpler and more straightforward nominal typology and also describes all categories and their variation across socio-spatial scales.

The typology is made up of seven major types of open space: (1) food production areas; (2) parks and gardens; (3) recreational space; (4) plazas; (5) streets; (6) transport facilities; and (7) incidental space. Open spaces within each category are further classified by a spatial scale continuum: city-wide, intermediate, and individual building. Stanley et al. (2012) are of the view that city scale is defined as open spaces associated with major institutions which are nationally or municipally symbolic or oriented to large segments of the population. The intermediate scale is defined as spaces that serve multiple residences in a more localized portion of the city, such as a district or neighbourhood (Stanley et al. 2012). According to Stanley et al. (2012) even the smallest scale individual buildings or residences can provide an open space such as a yard or enclosed courtyard that is planned and designed for its occupants.

Stanley et al. (2012) indicate that the main purpose of this typology is to come with a standardized comparison of urban open space in spite of the culture, field of study, or time period. The typology is organized by form, function, scale, and land cover of open spaces in order to thoroughly describe the space in various set of situations.

The typology contains a third dimension of analysis oriented around Al-Hagla's (2008) differentiation between "green space" and "grey space." Al-Hagla (2008) describes green space as "a subset of open space, consisting of any vegetated land or structure, water, or geological feature within urban areas," and grey space refers to more civic-oriented spaces such as "urban squares, market places and other paved or hard landscaped areas." This difference applies to all seven types of open space and represents an important variable that can be utilized in planning research as well as urban ecology and human-environmental relations (Stanley et al. 2012).

Table 2-3: Open space typology

		Spatial scale		
		City	Intermediate	Residence
Form	Transport Facilities	Harbours, Airport and Train Station Parking	Transit Station, City Gate Areas	Driveways, Parking Areas
	Streets	Central Boulevards	Street Space	Pedestrian Alleys, Paths
	Plazas	Large Formal Plazas	Smaller Neighbourhood Plazas	Interior Courtyards
	Recreational Space	Stadiums, Greenbelts, Beaches	Sports Facilities, Playgrounds	Houseyard, Play space
	Incidental Space	Natural Features and Semi-Wild Areas	Empty Lots, Transit Boarders	Marginalized Space Between Buildings
	Parks and Gardens	Major Formal Park and Garden Space	Institutional Garden, Small Parks, Cemeteries	Household Gardens
	Food Production	Orchards, Agricultural Fields	Communal Grazing Land, Community Gardens	Kitchen Gardens, Small Horticulture

Source: Stanley et al. (2012:13)

	Grey Spaces
	Grey/Green Spaces
	Green Spaces

2.5.1 Food production areas

Stanley et al. (2012) stress that food production areas are regarded as green spaces that are used predominantly for crops and livestock. Those areas play a vital role in local people's subsistence contributions. This is a straightforward category that can be blended with parks and gardens, where a mix of comestibles and aesthetic plantings are common in antiquity and many modern house lots (WinklerPrins and de Suza, 2005; Alayon-Gamboa and Gurri-García, 2008). On the other hand, the different functions and origins of food production areas guarantee a separate category.

2.5.2 Parks and gardens

According to Stanley et al. (2012), parks and gardens are defined as partly landscaped, mostly green areas that are planned and designed for social and recreational activities as well as aesthetic or display purposes, although historically these functions have been intertwined with food production. In most cases, parks are seen as bigger than gardens and entail less management of plants, but usage of these terms varies by country. Although a number of parks and gardens are well specialized and institutionally designed for specific cultural functions, some of them functioning as multi-purpose spaces for social interaction, recreation, and ritual (Stanley, et al, 2012).

According to Cole et al (2012) a community's park system can offer passive and active recreational opportunities which are located in close proximity to home for a variety of residents and visitors. It is further indicated that neighbourhood and community parks provide immediate urban area needs (Stanley et al. 2012). According to Stanley et al. (2012) the neighbourhood park is regarded as the mainstay of a community's park system. These parks offer recreation and open space opportunities within walking distance of the residences they serve (Cole et al 2012). Community parks provide a bigger area of the community or groupings of neighbourhoods. These parks consist of more specialized recreational facilities (such as athletic fields or swimming pools) that need bigger service areas (Cole et al. 2012).

According to Stanley et al, (2012) regional or major parks are big expanses of open land that provide natural and scenic quality and support a multiplicity of active and passive recreational activities within an area. These types of parks support the whole city, county, or wider region. They are frequently centered on a unique natural environmental feature or resource, such as a lake, mountainous area, or river corridor (Cole et al. 2012).

2.5.3 Recreational space

Stanley et al. (2012) indicate that recreational space consists of functionally specialized green and grey spaces that are primarily designed or used for leisure activities, such as sports or exercise. According to Cole et al. (2012) the need for recreation is regarded as universal. Recreation spaces provide places that allow the residents to exercise, participate in competitive sports, socialize with others, and provide space for people to get away from development and experience the natural environment which plays a significant role in improving physical, mental,

and emotional health (Cole et al. 2012). In addition, recreation offers the opportunities for learning, exploration, and challenge that contribute to human growth.

2.5.4 Plazas

A plaza is identified as more than a public space within the city since it provides quality public life to the people who utilize it for enjoyment and economic benefits. It is described as a place for people to gather together, having fun and different experience (Cole et al. 2012:13). The importance and superiority of a plaza is indicated by the liveability and societal interaction that occur within it, the levels of physical and emotional comfort that the plaza provides, experiences that people get and opportunities to take part in different activities (Cole et al. 2012:14). It is opined by Cole, et al (2012) that a plaza is an urban open space which catches the attention of people to come together for enjoyment and also contributes to the urban's economic development. Don (2003:45) is of the view that plazas are commonly activity promoters in cities that normally are well designed and structured and also characterised by high-density buildings with well structured and maintained streets. Streets play vital roles in structuring plazas because they promote a good setting for activities and facilities that draw people to the city centres for enjoyment and influence social cohesion. As held by Mitchell (2003:46) that a plaza may be defined as a hard surfaced outdoor public open space that offer quality public life; it is a place for relieving stressful urban life and users come together and share different experiences. A plaza is a place for leisurely walk; sitting, relaxing, chilling, eating and witnessing the world go by (Montero 2001:17).

Stanley et al. (2012) stress that plazas are intentionally established open spaces that are framed by buildings on most sides and usually hard surfaced. According to Mitchell (2003) plazas have ability to enable a variety of civic activities and also can be referred to as a multi-purpose centre. At the city and intermediate levels they are usually open to public access.

2.5.5 Streets

Talen (2000) indicates that streets promote a clear social purpose within the community. Duncan Village Local Spatial Development Framework (2008) indicated that streets like Douglas Smith Highway in Duncan Village are areas where a number of activities are taking place. They must be regarded as public space much more than empty space between buildings and as a result, must be planned and designed with view of accommodating the pedestrians (Talen, 2000). Talen (2000) stresses that streets are designed to foster and influence street life,

since any increase in pedestrian activity is considered to reinforce a sense of community, community bonds and support sense of place. Streets are regarded as places that must be safe for pedestrians so that residents will be encouraged to use streets (sidewalks), by doing this they will be intensifying the chance for social encounter (Talen, 2000). The following two characteristics of streets may be employed within a community in order to measure the physical differentiation of public space within neighbourhoods, quantity / type of street, and presence or absence of sidewalks (Talen, 2000). Connectivity within the neighbourhood is seen as one of the vital aspects to consider and should be maximised in order to accommodate movements of pedestrians, and as a result, block size should be small, transected by local serving (as opposed to arterial) streets. More streets transformed into a larger arena of public/private interaction (Talen, 2000). This previous state is supported by some streets within Duncan Village which are offering public life. It is indicated that broader sidewalks and commercial street frontage play a vital role in influencing local economic activities and also allow neighbourhoods to be safer (UN-Habitat, 2015). There are informal local economic activities that are taking place along Douglas Smith Highway in the study area.

According to Mehta (2007; 2013), the commercial street in neighbourhoods has the potential to encourage and foster the social, land use and physical qualities. Mehta (2013), with the aim of increasing and improving social life of commercial streets, he came up with design guidelines that can assist in achieving social life and sense of community.

Figure 2-3: Characteristics of the neighbourhoods' commercial street



Source: Mehta (2013:17).

Mehta (2013) indicates that neighbourhoods' commercial streets have the potential to be regarded as the place where residents interact and particularly the place for stationary activities and spending time on enduring activities. Mehta (2013:13) further identified that by increasing the chance of interactions; streets can be influence and foster a stronger sense of community among residents. According to Farahani and Lozanovska (2014:9), design and physical characteristics of the commercial streets play a significant role in encouraging the chance of encounters and providing pedestrian-friendly environments. As a result, an essential part of the social life of neighbourhoods is included in the social life of the commercial street (Mehta, 2013:21). Farahani and Lozanovska (2014:11) observe that a commercial street in a neighbourhood is one of the built environment settings where people may experience public life and it may be a lively place, which offers safety and security for the neighbourhoods as well as encouraging the social life and creating healthy communities.

2.5.6 Transport facilities

According to Stanley et al. (2012), transportation areas consist of spaces where the transfer and distribution of goods is undertaken and conducted close to forms of transport. This is a specialized functional category, and these areas differ based on the mode of transport within the area. Stanley et al. (2012) indicate that these spaces may include some marketplace functions, but marketplaces and shops may exist separately in plazas or buildings.

2.5.7 Incidental space

Incidental space also referred to as marginalized or amenity space (Garde, 1999; Al-Hagla, 2008), is defined as any green or grey space situated on the boundaries of other spaces or buildings that is either ignored or not planned for a specific use other than safety, visual amenity, or physical separation (Stanley et al. 2012). These spaces are viewed as not easily amenable to either formal or functional classification.

With regard to further subdividing the types of space, Al-hagla's categorization of open space into "green space" and "grey space", which is based exactly on its respective ground-cover, has been adapted to the category of open space, and public space within it (Al-hagla, 2008). Parks were seen as one perfect example of green space, while plazas and streets are typical examples of grey space.

Table 2-4: Open space typology

Space Type	Description	Primary function
Greenspaces		
Parks and gardens	Areas of land, normally enclosed, designed, constructed, managed And maintained as a public park or garden.	Informal activity or relaxation, social and community purposes, and horticultural or arboricultural displays.
Amenity greenspace	Managed and maintained landscaped areas with no designated specific use by people.	Providing visual amenity or separating different buildings or land uses for environmental, visual or safety reasons. They may also be used, incidentally, as wildlife habitats.
Children's play areas	Designated and maintained areas providing safe and accessible opportunities for children's play normally connected to amenity greenspace.	Provide safe facilities for children to play, usually close to home and under informal supervision from nearby houses.
Sports facilities	Designed, constructed, managed and maintained large and generally (although not always) flat areas of grassland or specially-designed artificial surfaces, used primarily for designated sports.	Accommodate practice, training and competition for recognized outdoor sports.
Green corridors	Routes linking different areas within a town or city as part of a designated and managed network and used for walking, cycling or horse riding or linking towns and cities to their surrounding countryside or country parks.	Allow safe, environment-friendly movement within urban areas. Moreover, they support wildlife colonization and therefore habitat creation.
Natural/semi-natural greenspaces	Undeveloped land with little or only limited maintenance which have been planted with wild flowers or colonized by vegetation and wildlife. They also include woodland, railway embankments, river and canal banks and derelict land, which may in some cases be thought of as temporary natural greenspace.	To promote biodiversity and nature conservation.
Other functional greenspaces	Essentially allotments, the yards of religious buildings and cemeteries.	
Greyspaces		
Civic squares and plazas	Often containing statues or fountains and primarily paved, sometimes providing a setting for important public buildings.	
Market places	Usually with historic connotations.	
Pedestrian streets	Usually former roads which have been paved over and provided with seats and planters.	
Promenades and seafronts	Usually used for recreational activities. They have special value when located at historical areas.	

Source: Al-hagla (2008:28)

For the purpose of the study, the typology of public spaces discussed above contributes in identifying the exact types of public spaces that are preferred by the residents of Duncan Village and also the activities that are accommodated by these types of public spaces. These identified public spaces will play a fundamental role in meeting the residents' needs. The typology of public spaces also assists in providing a methodological base of the study. It has been shown that interviewing the residents and observing residents' behaviour towards different types of

public spaces would assist in providing key information that contributes to comprehending the perceptions, preferences and experiences of users, nature of public spaces preferred by local community and the activities that are needed and which are offered by existing public spaces. Understanding the activities that meet residents' needs and which attract them to built environment settings immensely contributed towards orienting some of the questions which were asked in this research. Also knowing the types of public spaces that are required can assist in orienting the development of planning and the design implications of public spaces in Duncan Village.

2.6 Uses and activities of public spaces

Activities and uses within public spaces are viewed as fundamental elements that allow public space users to visit different types of public spaces within neighbourhoods. It is believed that if people have something to do in the public space, there is a reason for them to return to the public setting. If people find that there is nothing to do, people will not visit the public space and it will remain empty. This also indicates that there are literally benefits when it comes to activities and uses of public spaces.

PPS (2009) indicates that the following factors that can be used to evaluate the uses and activities of a public space:

- The more activities offered by the space that public space users can participate in, the better.
- Within public spaces, there must be a balanced number between females and males.
- Public space users of various age groups must be able to use the spaces (children, young adult and adults).
- The public space must be utilized throughout the day.
- A public space that can be utilized by both individuals and groups is seen as better than one that is just utilized by individuals because it means that there are places for people to sit with friends, there is vivid public life and social life among the public space users, and it is regarded as a place that is filled with more enjoyment.
- The crucial determinant of a public space's success is how well it is managed.

2.6.1 Activities

Gehl (1998) identifies a variety of activities that occur within public spaces. There are three distinct, categories namely: necessary activities (transport & business activities); optional

activities (recreational activities); and social activities. He defines these categories of activities as follows:

“Necessary activities are activities that generally of a rather purposeful character, they occur at all times and more or less regardless of the quality of the physical environment” (Gehl, 1998 :193).

“Optional activities consist of what you like to do, and get tempted to do, when given the right circumstances. This category illustrates a variety of very popular recreational activities e.g. standing and looking at street life, sitting to rest, sitting for a while to enjoy the place, the scenery, the open air, the trees and flowers, sitting on a sidewalk care, enjoying the street scenery and so on. These activities are entirely optional - no one is forced to engage in them, but whenever the circumstances are right; when the quality of the physical environment is fine these urban recreational activities tend to occur in great numbers because many people find recreation in urban spaces with other people, especially attractive to engage in. These activities are to a large extent rather spontaneous - impulse activities - often occurring when you are actually just passing through the city involved in other purposes, and suddenly gets the inspiration to stay for a while” (Gehl, 1998:193).

“Social activities - meeting your fellow citizens: In one end of the scale will be the major civic events, the festivals, parades, protests, ceremonies. Another - and indeed very important category of social activities is the multitude of humble daily day encounters: meeting your fellow citizens on the sidewalks, seeing and hearing people, experiencing what happens in the city. These social activities cover a broad array ranging from those just passively being present taking in the scene, to those using the public spaces for active communication to the other citizens such as music, theater, vendors, distributors of pamphlets, ideologies and so on; the unplanned and unexpected meetings. All these humble daily encounters are among the highest valued attractions the city can offer” (Gehl, 1998:193).

Activities offered by public spaces play a fundamental role in attracting and influencing public space users to visit different types of public spaces. In other words, the above-mentioned types of activities promote vivid public life within public spaces. Knowing and understanding different types of activities that are available assisted the researcher in formulating the idea of what the local residents think and experience while they are visiting public spaces that accommodate the above-mentioned types of activities. From the previous statement, the researcher will be able to

orient the development framework for the planning and designing of public spaces which take into consideration all needed activities and also that are in line with the perceptions, experiences and preferences of the public space users. Different types of activities described above would play a significant role in providing referential knowledge to the local residents so that they would be able to identify and choose the activities that promote public space users' to meet their needs and preferences.

- **Merging three categories of activities in order to draw different types of users to public spaces**

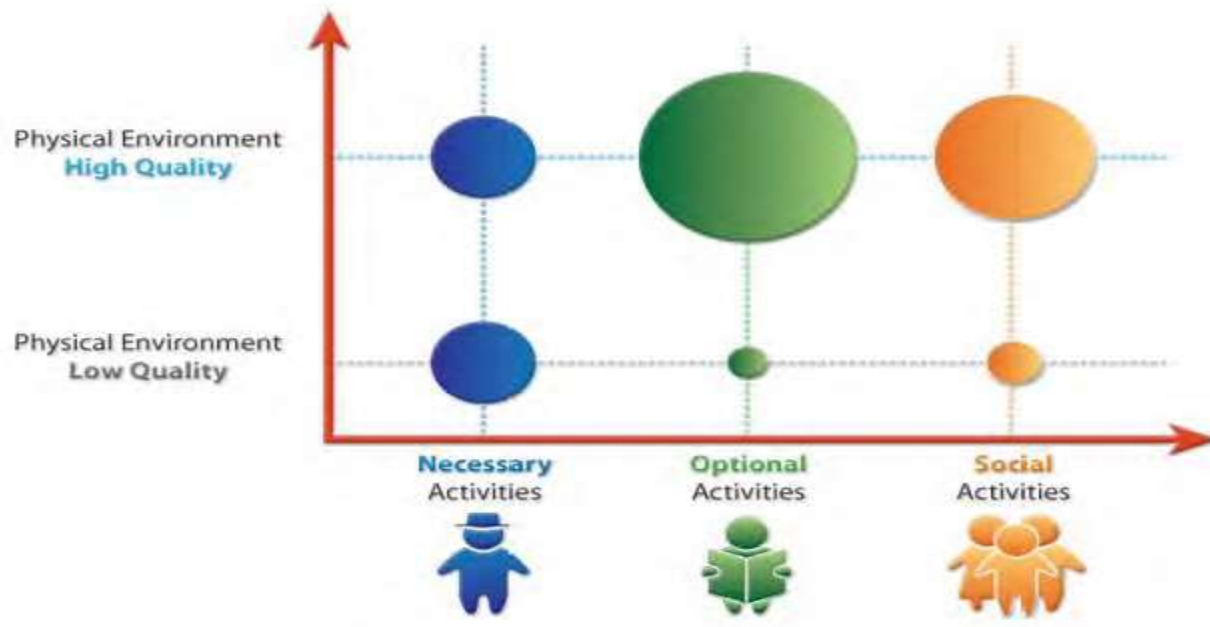
Gehl (1998) is of the view that a rational and functionalistic approach to urban space design will play a vital role in establishing and creating different public spaces that provide different types of activities to the users. For example: walking and shopping are promoted by streets, sidewalks, and shopping malls; recreation is fostered by parks and sports facilities; social activities are encouraged by festivals and special events. Gehl (1998) notes that while this functional approach has been used widely, it encourages disappointing results, because it does not consider one of the most important aspects of people activities in the city viz. the fluent and ever-changing activity patterns characteristic of life in urban spaces (Gehl, 1998). Life is a dynamic or an ongoing process where different activities should play a major role in encouraging people to interact with each other. If people's activities are restricted to particular monofunctional areas then the dynamics of life in public spaces could be lost.

Walking is not only regarded as a means of movement from one point to another: it also plays a major role in offering opportunities for social activities where a person will meet, see and hear other people. Walking allows people to shift to other types of activities which might take place while a person is taking a walk. When a person is walking, it is easy to change direction, to stop and look at something interesting or to talk to someone. It is further indicated that a person can shift his/her focus from busy walking to recreation activities, when he/she is attracted by seeing a bench or a cafe chair in just the right spot, inviting him/her to sit down for a while.

Looking at quality and successful public spaces, it shows that these places play a significant role in attracting people to them and they offer people the types of activities mentioned above. These activities must be well integrated in order to meet people's needs in the public spaces. The best approach to design for public life should be taking into consideration the complex and integrated nature of human urban activities as a departure point (Gehl, 1998). It is vitally

important for public spaces to offer choice of different activities and uses, in addition to allowing freedom for the individual.

Figure 2-4: The relationship between environmental quality and human activity



Source: Gehl (2011:39)

2.6.2 Uses of public spaces

There are a variety of uses of public spaces that correspond to countless preferences, perceptions, motivations, needs and interests of the public space users. According to USER's report (2015:37), there should be a better understanding of the way in which public spaces should be used.

According to Kellet and Rofe (2009), effective public spaces should be designed and planned so that they do not promote just a single activity. Public spaces should be planned and designed in a way that they influence or foster a number of different activities and uses in order to meet public space users' preferences and needs. USER's report (2015), noted a multiplier effect that is inherent in public space usage and the uptake of a diverse range of activities.

During the development of public spaces, the public consultation with the public space users is seen as the most important aspect within the entire process simply because public space users'

practical knowledge is one of the main inputs required to understand how the spaces are used and experiences of people with regard to the uses of public spaces. The PPS Report (2009) recommends understanding uses and users of public spaces as a foundation for the improvement and development of public spaces within any community.

Knowing the uses of public spaces assisted in assessing the perceptions, preferences, experiences of the users towards existing public spaces and utilization of public spaces by public space users. The uses offered by public spaces would assist in offering an indication of the experiences, perceptions, needs and preferences of the public space users with regard to their existing different types of public spaces. The main focus of this study is directed to the questions of how public space users perceive the existing public spaces, what types of public spaces are preferred by the local community and the type of activities or uses to be provided?, the factors that affect the functionality of public spaces, what people like and dislike and in which area public space users see and identify opportunities for improvement of the existing public spaces?.

2.7 Public space users

The PPS (2015) indicates that knowing the public space users plays a significant role in planning and designing different types of public spaces that can be beneficial to society at large. Knowing factors such as socio-economic status, race, gender and age in this research is vitally important. Demographic factors such as socio-economic status, race, gender and age, may influence the degree of use in certain public spaces (Dai, 2001). Demographic factors play a major role in promoting the provision of different types of public spaces that can play a significant role in meeting local residents' needs.

Pollock (2014) is of the view that the needs of public space users differ greatly by age group. Several public spaces are planned and designed with small children and adults in the mind, for example, playgrounds are designed for children with benches provided for the adults watching them.

PPS (2013) found that children are attracted by the design of public spaces. According to Pollock (2014), children form a large group of users of public spaces, yet they are often not included during the planning process. Play and fitness are regarded as important for healthy children, so public spaces must have a room for those needs (CABE, 2011).

PPS (2015) noted further that young people have a particular need of mobilising together in public spaces where they can experience public life on neutral ground. These gatherings of many young adults together often promote unease with observers fearing petty crime and disorder. A number of adults identified these large groups of young people as a real threat.

CABE Space (2011) is of the view that children and young people require spaces away from their home to socialize and spend quality time with their peers. Moss and Petrie (2002) comment that public spaces that are different from a back garden or a school playground are vitally important, as they are accessible to every member in the community. The interactions that occur within the public spaces encourage and offer a rich education among children and young adults about the world that is around them and lifestyle of the people who live in it (Moss and Petrie, 2002).

Public spaces such as parks, street, playgrounds, football pitches, pavements and open patches of grass and trees play a fundamental role in offering space for children to gather together and play. They also contribute in establishing a world for themselves independent of their parents where they can explore the natural and built environment settings that are around them (PPS, 2015). Accessible public spaces assist children to stay healthy and minimize the risk of obesity through provision of opportunities for exercise.

Parks and playgrounds are not the only types of public spaces that are regarded as important. Children should be able to utilize the entire public realm safely and without fear. For many children, especially those with little experience of trips or holidays further afield, their local built environment setting is their most important experience of the outside world (CABE Space, 2004). CABE Space, (2004) points out that "...for these young people, having the independence of walking around these built environment settings means a lot in their world." PPS (2015) stresses that public space influences the linkage between the space outside the front door of a child's home and the playground around the corner or their friend's house across the road. The provision of an attractive child-friendly park is a threat in the lives of children if there are busy roads with no alternative walkways. This is one aspect that needs to be addressed in all stages of development of public spaces. It is important for children and young adults to be involved in planning and designing public spaces.

Both children and young adults are seen as the main users of the public spaces during the day and night. Children should be allowed to contribute their ideas when the public spaces are

developed, as this can play a vital role in promoting planning and designing built environment settings that have the ability to meet the needs of both children and young adults. Provision of public spaces that caters for this age group in the study is highly recommended since there are large numbers of children and young adults. There should also be public spaces that are specifically planned and designed to meet the needs of adults since it has been found that adults feel unsafe around young adults (CABE Space, 2010:37).

A number of studies indicate that old people tend to use public spaces at different times to that of young people (CABE 2008 and PPS 2013). Older people are free from concerns over crime if there is visibility of security personnel in the public spaces. Older people are likely to use the public spaces earlier in the day due to the lack of public transport and fear of crime. PPS (2015) identifies that older people avoid the use of many public places, especially after dark, because of inadequate facilities and transport, security concerns, and a lack of interesting age-appropriate activities. According to Worpole (2003) adult uses of public space are often prioritized compare to those of children. There is a quarrel between adults and children on the use of public space. CABE Space (2004) indicates that some older people are too sensitive to the presence of others in public spaces. Therefore, they prefer not to associate themselves with areas where there is a heavy presence of older children and young adults.

Older people tend to stay connected to the public life of built environment settings within their villages, towns and cities. Through this, they experience a sense of community and sense of place. In most cases when public spaces are planned and designed older people are involved in the development processes.

Pollock (2014) indicates that women have more freedom in public spaces where there is less male dominance. Some people believe that the number of women in public spaces decreases due to the fear of potential harassment and crime (Gradin, 2008). Pollock (2014) stresses that women's fear of public spaces, due to the perception of danger or high levels of crime, plays a role in limiting its use. He also indicated that the fear of crime within public spaces also disturbs men. Gradin (2008) is of the view that women's fear of public space plays a huge role in limiting their freedom and enjoyment of public life. With regard to men, a certain group of men in public space is seen as most troublesome (Pollock, 2014). For women and single men, the fear of violent assault is viewed as a driving safety concern in public spaces (Gradin, 2008).

Despite high levels of fear within public spaces, Pollock (2014) indicates that more women truly use public spaces than men. PPS (2013) indicates that women are also more sensitive about

the design and planning of public spaces than males. Therefore, since both males and females are key groups of public space users planning and design of these spaces should take account of that fact. This can be achieved by planning a number of amenities, by promoting accessibility, and considering safety in the design phase. Women's Design Service (2007) articulates a number of recommendations for designing for women which include improving lighting, creating clear sight lines, adding clear signage, and reducing signs of neglect.

To sum up this section, the research will be engaging all users of public spaces from young adults and adults in identifying the type of public spaces that need to be developed and how the existing ones may be upgraded in Duncan Village. With regard to activities, the same approach will be implemented in order to come up with the desired activities within public spaces. Issues like security and efficient public transport will be thoroughly explored in order to allow older people to be free from crime and provide them with reliable public transport. By doing this, adults will be drawn to public spaces in large numbers. Women are afraid to be in public spaces which dominated by males. So when providing public spaces, security for females in the public spaces should be ensured in order to attract them to use public spaces.

2.8 Location of public spaces

Location is also important in the planning and design of public spaces to attract users. Sokol and Dritan (2012) stress that location frames the case study in which socio-economic aspects, political development, and environmental aspects, such as, climatic conditions (as different climates should be thoroughly studied before any development of public space) are taken into consideration when planning and designing of different types of public spaces.

Location plays a fundamental role in singling out the perceptions, preferences and experiences of public space users towards available public spaces. Strategic locations of public spaces contribute to the manner in which public spaces are used by societies. Public space users tend to choose public spaces that are able to meet their needs best, although this may call for certain compromises. Location was identified as of paramount importance above other aspects by public space users. Public space users prefer to visit public spaces that are in close proximity to their neighbourhoods. To support the previous statements, Sokol and Dritan (2012) indicate that in order to take full advantage of public space usage there should be short distance, approximately 1.6 – 2km, from local people's neighbourhoods and workplaces to existing public spaces. This is identified as preferable walking distance. This also plays a major role in what

public space users think and their experiences towards the location of different types of existing public spaces within the study area.

Sokol and Dritan (2012) stress that the location of public space may be seen as a proximity issue. Proximity plays a significant role in promoting physical activity which assists public space users to exercise while they are walking to the available public spaces. In this case, the closer the proximity to the existing public space, the bigger the chance of physical activity occurring.

The location of existing public spaces draws the perceptions and experiences of public space users to how they are accessed and the distance between their neighbourhoods, workplaces and the public spaces themselves. Within the case study, different perceptions, preferences and experiences of local public space users towards different types of public spaces may be influenced by the availability of facilities that play a significant role in promoting a range of activities. Kellet and Rofe (2009) maintain that public spaces which offer a variety of facilities and activities play a fundamental role in promoting a great experience to the public space users. These public spaces determine how the needs and preferences of the local community are met.

Professionals must take into consideration the location before any development so that they should create and execute an effective neighbourhood design that suits the location. Characteristics such as climatic conditions and distance between neighbourhoods and public spaces play a significant role in public space usage.

2.9 Factors that affect the functionality of public spaces

2.9.1 Accessibility in public open spaces

To promote the establishment of a fully democratic and socialized public space within societies, a public space should be easily accessible to every member of that society (Neal, 2009). Horner (2004) defines accessibility as an effortless way which allows people to reach the desired activity sites of their choices. Accessibility is the most important aspect to assess the point to which planning and design has been able to respond effectively to the population's demand for urban public space (Horner, 2004). An accessible public space affords opportunities to a large number of space users to easily reach a place and allows for a variety of uses (Bertolini, 1999). Pasaogullari and Dortali (2004) are of the view that people should have both physical and psychological access in public spaces.

Physical accessibility is defined as the provision of public space within the neighbourhoods (Pasaogullari and Dortali, 2004). Town and regional planners, landscape architects and urban designers advocate for public spaces to be strategically located or distributed near users in order to promote accessibility. They further indicate that users should not struggle to get to it and should also be able to get through. Public spaces must be accessible regardless of the location of a settlement, an individual's physical disability and / or prevailing socio-economic conditions (Harnik, 2003). Therefore, establishing public spaces near a variety of modes of transportation enhanced their accessibility. Public spaces must be planned and designed in such a manner that they will holistically accommodate every member of the society whether they are able or disabled people (Harnik, 2003). They must offer infrastructure that caters for users with a variety of mobility needs e.g. bicycles, wheelchairs and strollers. When the physical accessibility of a public space is well provided, Pasaogullari and Dortali (2004) observe that large numbers of people will be likely to flock to those public spaces.

However, Zajac (2013) argued that increasing the accessibility to public spaces for some users might conflict with the needs of other users. For example, people who are physically handicapped may feel demoralized by extensive bicycle access to public space.

Fully accessible public spaces were identified as those which allow the users to experience social and psychological comfort within any chosen public space (Carr et al., 1992). During the course of planning and designing of public spaces; town and regional planners, landscape architects and urban designers must take into consideration the safety issues for people of all genders, races, ages and income categories (Carr et al, 1992).

Maruani and Amit-Cohen (2007) indicate that public spaces which have the greatest human interference with the natural environment and highest level of accessibility among the people should be promoted. Examples of public spaces that have the potential to attract a large volume of people include urban squares and plazas, urban parks and community gardens. These types of public space are commonly established or developed within or adjacent to urban built up areas with the aim of fulfilling urban people's recreational needs (Chiesura, 2004). For these public spaces to function properly, they must be accessible to all members of the community without exception (Chiesura, 2004).

In order to promote community wellbeing public space planning must incorporate different factors that focus on the community's needs. Maruani and Amit-Cohen (2007) identified

accessibility as one of those factors that has the potential to accommodate people's needs. Ball et al. (2008) identified that one of the end goals of public space planning is to fully address a community's demand for provision of public spaces. This necessitates a more comprehensive understanding of accessibility, especially at the individual perceptual level. McCormack et al. (2008) postulate that accessibility can be achieved and attained by conducting proper landscape design within the built environment settings.

Town planners, landscape architects and urban designers have identified a number of design mechanisms and land use management techniques that can be implemented to promote the safety of people who use public spaces (Carr et al. 1992).

The accessibility of all forms of public spaces found in neighbourhoods should be measured and utilized as an indication of how public spaces are dispersed (Talen, 2000). She further indicates that dispersed public spaces are preferable to public spaces that are concentrated in one area. According to Talen (2000), distances between residents and public spaces, when interconnected with the theory of maximizing access to public spaces and minimizing walking distance, is viewed as the plan to integrate public spaces within the neighbourhoods. Zakerhaghighi et al. (2013) identified that location and design of public spaces have the potential to play a fundamental role in allowing people to gather together. Levinson (1998) points out that accessibility is promoted by two elements: a temporal element (the travel time between two points) and a spatial element indicating the provision of the land use activities under question. Zakerhaghighi et al (2013) argue that public spaces are likely to be empty of people in most cases due to the fact that the user population might be staying far away. Zakerhaghighi et al. (2013) identified that travel time and proximity are other factors that influence access to the public spaces. Whyte (2000) maintains that the accessibility of a public space is measured in terms of its connections to the local surroundings, through both visual and physical elements.

It is the view of Zakerhaghighi et al. (2013) that a successful public space is one which allows the user population to gain access and egress to it easily. It should be visible from a distance and up close (Pasaogullari and Dortali, 2004). For example, local streets are preferable to major arterial roads, and the availability of sidewalks is identified as a way to link private and public spaces (Talen, 2000). Apart from these, Lau and Chiu (2003) indicate that the availability of public transport or having private cars is also one of the factors that plays a major role in promoting the accessibility of public spaces.

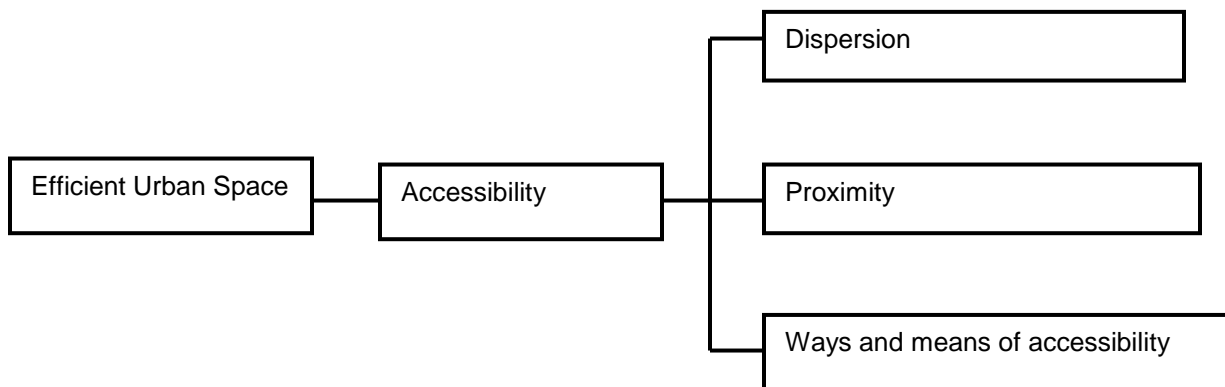
Accessibility plays a vital role in allowing all people, irrespective of race, gender, age or income status, to meet their human needs and preferences within public spaces. For a public space to be considered successful, accessibility is crucial element. It influences the planning and designing of public spaces. Accessibility also can play a vital role in generating research questions that can be posed to the residents of Duncan Village.

Table 2-5: Effective factors on accessibility to urban spaces

Variable	Measuring element	Way
Dispersion	Areas allocated to public spaces and space between public spaces and houses	Interview (acquiring travel time)
Proximity	Proximity	Interview and Observation (determining whether urban space is observable from living place)
Ways and means of accessibility to urban spaces	Types of street sidewalk; Public transportation and private cars	Determining type of street and their way of accessibility; Determining sufficiency of sidewalks and public transportation; Determining value of private car owning and their effect on accessibility

Source: Zakerhaghighi et al. (2013:13)

Figure 2-5: The relationship between environmental quality and human activity



Source: Zakerhaghighi et al. (2013:13)

2.9.2 Public space management

Magalhães and Carmona (2007) define public space management as a set of procedures and processes that are undertaken in order to ensure that public spaces achieve all their roles, whilst at the same time satisfying the needs of its users. Smith et al (2011:41) and Lopes et al (2012:56) define public space management as “the long-term management and preservation of a space in a way that is sustainable in order to ensure its long-lasting environmental, social and economic benefits and potentials are guaranteed”. Public space management must be viable for

it to promote both present and future generations to have the environmental, social and economic benefits (Dempsey and Burton, 2011).

Lopes et al. (2012) note that management is regarded as one of the sensible factors regarding public space. They further indicate that management has the ability to create severe constraints on aspects such as control, security, and maintenance. Regardless of these elements, when studying the management of public spaces, Lopes et al. (2012) identified that aspects like resource coordination, partnership mechanisms, and user involvement during their operation processes and schemes must be considered. In short, management of public spaces has implications for a sense of community, and meeting users' needs and preferences.

Public space management has been classified into four categories which are as follows: (i) the regulation of public space uses; (ii) the maintenance procedures; (iii) new funding and the continuing resourcing of public space; and (iv) the harmonization of interventions in public space (Magalhães and Carmona 2009; Nemeth and Schmidt 2011). The previous statement indicates that for any organization to be a managing agent of a public space, it has to bring together activities such as sourcing financial investment for the space, maintaining the physical space, regulating the uses of the space and mediating conflicts of interest (Magalhães and Carmona, 2009; Cheung, 2001; Murray, 2008; Nemeth and Schmidt, 2011).

The regulation of public spaces is usually conducted through by-law enforcements (such as signage) which instruct how public spaces should be used and accessed as well as the type of behaviour acceptable by public space users (Mierzejewska, 2011; Dempsey and Burton, 2011; Magalhães and Carmona, 2009). Paasche (2012), and Nemeth and Schmidt (2011) stress that this type of regulation of public spaces tends to exclude people regarded as “undesirables” from public spaces. The regulation of public spaces also plays a role in spatial isolation which is not supported by Spatial Planning and Land Use Management Act (SPLUMA, Act 16 of 2013) and modern city planning. Mierzejewska (2011) also indicates that the regulation of spaces further creates social status issues and spatial discrimination as it denies certain people from enjoying publicly oriented activities.

In terms of maintenance procedures, it is fundamental for public space management approaches to guarantee that the spaces are “fit for its purpose” (Jain, 2014; Magalhães and Carmona, 2009). Maintenance routines should ensure that public spaces are safe, hygienic and uncluttered (Mierzejewska, 2011; Van Malik, Van Aalst, Van Weesep, 2009 and Cheung, 2001).

Furthermore, financial resources must be made available and accessible in order to promote the day-to-day functions and funding for the re-design and re-development of public spaces possible (Dempsey and Burton, 2011; Mandeli, 2010; Gordon, 2013; Magalhães and Carmona, 2009). In order to support the previous statement, sustainable financial models should be created for effective long-term public space management. Funding to maintain public spaces should not be totally reliant on local government but should involve a variety of stakeholders (Van Malik et al. 2009; Dempsey and Burton, 2012).

Apart from the four public space management processes mentioned and discussed above by Magalhães and Carmona (2009) and Nemeth and Schmidt (2011); other researchers such as Dempsey and Burton (2011) indicate that governance, partnership, policy and evaluation are dimensions of public space management. These dimensions are regarded as interconnected and can be applied to the management of public spaces at a site, neighbourhood, city or regional level (Dempsey and Burton 2011). The partnership dimension is indicated as the sharing of the responsibility of public space management between two or more partners. Partners for public space management must consist of both local and community-based organizations which have advantages when it comes to the exchange and sharing of information and knowledge in the local context (Murdoch and Abram 1998). The governance dimension can be articulated as the shift from the State, which was seen as being the principal governing body of public space management, to an approach that involves a variety of stakeholders such as non-governmental organizations and community-based organizations (Mierzejewska, 2011; Dempsey and Burton, 2011). Such organizations are seen to play a significant role in supporting public space management. Murdoch and Abram (1998) pointed out that a participatory governance approach where communities are encouraged and have opportunities to participate in public space decisions is important for long-term management of spaces.

With regard to the policy dimension, regional, local, neighbourhood and site specific policies on public spaces are required as they give direction and promote best practices in urban design and local planning (Dempsey and Burton, 2011). Evaluation of public space management is singled out as a fundamental aspect that is geared towards monitoring and assessing public spaces in order for public space users to obtain the environmental, social and economic benefits (Murdoch and Abram, 1998; Dempsey and Burton, 2011). Murdoch and Abram (1998) indicate that the evaluation of public space management can be done through regular customer satisfaction surveys in order to improve the quality of public spaces. Evaluation of public space

management through surveys in the United Kingdom is thought to have improved the quality of spaces tremendously for users (Barber, 2005).

A number of researchers indicate that good public space management can support social, economic and environment benefits which is regarded as one of the human needs within the public spaces. It is important for different organizations to fully understand the public space management concept so that they handle the preservation and maintenance of public spaces. If these public spaces are to satisfy or meet the needs or requirements of the users, Cheung (2001) states that they need to be well maintained. Dempsey and Burton (2011) articulate that people will avoid visiting and making use of poorly managed spaces, whereas public spaces that are well-equipped and free of litter are more likely to be visited repeatedly.

2.9.3 Ownership

According to Kohn (2004), public spaces are urban built environment settings owned by the government while being accessible to everyone without restriction, and which promote communication and interaction among its users. Staeheli and Mitchell (2008) emphasize the significance of ownership for the publicness of public space. They further indicate that ownership is regarded as a powerful instrument that regulates public spaces. Kohn (2004) and Brown (2006) use the concept of 'ownership' clearly when they define public space and publicness; while Madanipour (2003) argues that the distinction between public and private is considered to be vital in comprehending the built environment at large:

“If we monitor the spaces of villages, towns, and cities, we see how they are broadly structured around a separation of public and private spaces. It appears to be a defining feature of these settlements: how a society divides its space into public and private spheres, and how this division controls movement from one place to another and access to places and activities (Madanipour 2003:1).”

With regard to the urban landscape, Madanipour (2003) identifies that this public or private distinction is seen as essential when it comes to the way in which community has always been organized. Evidence was clearly noticed in contemporary capitalist societies:

‘Public space’ has very different meanings in different societies, places and times, and as all of this suggests, its meaning today is very much bound up with the contrast between public and

private space. It is impossible to conceive of public space today outside the social generalization of private space and its full development as a product of a modern capitalist society (Low and Smith 2006:4).

Allen (2006) indicates that the division of the human habitat into public and private places is geared towards the concept of ownership, which is seen as a major attribute for the publicness of public space. According to Lofland (1990) space can be categorized into two general categories namely; public and private space. However, it must be considered that 'private space' is clearly understood as a space in private ownership and also as the personal space of the individual.

The privatization of public space is regarded as one of the recent concerns in urban landscape when it comes to the ownership status of public space (Punter, 1990). This consists of replacement of the old town centres by supermarkets and malls (Kohn 2004, Staeheli and Mitchell 2006, Van Melik et al. 2007) and also taking into account the rejuvenation of old dilapidated industrial waterfronts into spaces of use and scripted spectacle (Dovey, 2005).

Ndaba and Landman (2014) comment that there is a significant rise in privatised spaces (e.g. gated communities) as a result of safety and security being a huge concern for most city residents.

Having a number of public spaces could promote inclusivity, tolerance and diversity in the study area, as ultimately the public space could be regarded as being the 'space for equality' in contrast with the private space which can be regarded as a 'space of inequality' (Allen, 2006).

Allen (2006) asserts that privatization encourages the establishment of new public places where 'publicness' is restricted through inserting ambient power in the built design. Zukin (1995) also supports Allen (2006) by saying that publicness has been eroded because of a mode of privatization that was introduced to the public spaces. It is evident that there is a close relationship between ownership and control. Furthermore, the increasing trend of privatization of public space has played a huge role in the loss of publicness within the public spaces. Thus contemporary public places are not as public as they should be.

In an attempt to identify how a public space comes to be regarded as public, research targeting the typical functions of public space found that it could be regarded as a built environment

setting where community members can enjoy urban life, assemble and engage in free speech. This is a fundamental concept of democracy associated with the public space where a number of researchers (Carr et al, 1992; Mitchell, 2003 and Goodsell, 2003) believe that the quality of a public space should be a democratic setting which plays a fundamental role in fostering public life as essential for its publicness. Historically, public spaces were viewed as arenas that allowed people to articulate their frustration with certain circumstances or affairs. Therefore, they are considered to be settings where the basic rights assured by a democratic society, such as the freedom of speech and association, are visibly upheld.

For the purpose of this research, the ownership of public spaces should be in the hands of a government arms' length organization, a public-private partnership or other public body mandated to act in the public/collective interest and that is accountable to elected representatives of the community. Therefore, ownership, as the first measurement of publicness, is defined here as follows:

“Ownership refers to the legal status of a parcel of land, as the result of a purchase. It ranges from absolute public ownership to absolute private ownership, going through variations of grey shades between these two extremes” (Staeheli and Mitchell, 2008:14).

Through this type of ownership, every member of the community would be accommodated in the public spaces. It is believed that public space as a public good and as the quintessential space for the democratic life of the city is a “very public place” and should be owned by the people for the people. The situation is regarded as complicated when landlord and regulator are both considered to be the roles of the state. Staeheli and Mitchell (2008) gave an example as they argue that the public ownership of land is made difficult because of the Supreme Court decision that when owning land, the government “has an obligation to act like a landlord (an owner) and not only as a sovereign (a representative of the people). Staeheli and Mitchell (2008) indicate that the ‘less public’ situation is where a setting, even though it is considered to be open to the public is owned by private actor or body.

2.9.4 Physical design and planning

According to Gehl (2010) and Francis et al. (2012), well designed public spaces have the potential to meet people’s needs, preferences and to also foster a sense of community among the residents. Having properly designed and planned public spaces within a neighbourhood is one of the goals which are aimed at by town and regional planners, architects, landscape

architects and urban designers. They regard it as one of the factors that makes a public space successful. Having excellent qualities and standards of public space within the neighbourhood has been an issue of concern for long period for town and regional planners, landscape architects and urban designers (Pollock, 2014). Carmona et al. (2003) hold that urban design is principally focused on the provision of good quality in the public realm for both physical and socio-cultural aspects and the establishment of public spaces for the community to utilize and for social interaction. Much research based on guidelines that promote sustainable development of public spaces has been conducted (Gehl, 2010). In order to design good public spaces urban designers must take into consideration the significance of good design, the aspects to consider when it comes to good designs and also able to weigh up the design after creating and developing the public space (Gehl, 2010). Neal (2010) explains that “socio-spatial body of thoughts indicated that social problems and solutions are derived from the spatial form”. Best practices and design guidelines were used by researchers in order to design and evaluate public spaces that are conducive to use by different people within the neighbourhood (Pollock, 2014). A well designed and planned public space will make waves within the city with its unique design and architectural brilliance, but it depends on people’s needs and preferences. Research conducted in Cape Town has indicated that many poor people just want a space for a shack or to trade.

Pollock (2014) is of the opinion that a well-designed public space with high quality has the potential to attract a large number of users and it is more likely to be utilized in a sustainable way. For it to fulfill its mandate, the concept of publicness must be manifested within public spaces. Gehl (2010) is of the view that a well designed environment is regarded as a “high quality physical environment” that will promote the influx of people into that particular area. Through these places, public life and sociability are influenced. Gehl (2010) further created a strategic framework that allows people to understand the relationship between the sociability of public spaces and their design. By doing this Gehl (2010) came up with a strategic way to weigh up what contributes to a public space to be usable and desirable. As a result, a high quality physical environment has the potential to assist in ensuring high use of the public spaces.

With regard to the planning of cities and towns, local government should ensure that there is adequate land which earmarked for public spaces and that there is an implementation plan supported by long-term budgets for the creation and maintenance of public spaces. UN-Habitat, (2015) indicates that when planning cities public authorities must play a significant role to assist in facilitating a collaborative design process with a wide range of concerned stakeholders, which

develops a debate around concrete interventions, step by step. Design plays a fundamental role in debate and reflection, testing and improving wherein a common vision will be reached. Once a design is incorporated throughout the planning process (from research phase to detailed phase), it can play a major role in indicating substantial negotiable directions, defining problems and improving momentum to every phase of planning (UN-Habitat, 2015). Furthermore, clear design allows planning to be accessible to non-planners who might be confused by planning jargon. Thus it allows these individuals to actively have a say in the entire planning process. Since a clear design encourages understanding between politicians and civic society, it can also play a significant role in speeding up governments' decision-making processes and save endless debates (UN-Habitat, 2015). The planning and designing of public spaces in South African cities must be practised in line with the Spatial Planning and Land Use Management Act (SPLUMA) 2013 (Act No 16 of 2013) development principles, namely, principle of spatial resilience, spatial sustainability, spatial justice, efficiency, and good administration (Department of Rural Development & Land Reform Report, 2013).

The private sector's involvement in public space creation and management indicates that there is a need for local government to follow a people-centred and participatory approach where spatial and urban planning is concerned (CABE 2010, Dempsey and Burton 2011 and Farrell, 2015). These approaches will play a significant role in fostering sustainable development since residents and communities will participate in city developments. This mechanism will again assist in ensuring that the planning and designing of public spaces can address and respond to the needs and preferences of the people that use the spaces. During the process of public participation the communities continue to participate in public space matters and the planners are needed to offer a significant role in consultation, facilitation, mediation, advisory, and co-ordination. A group of professionals such as urban planners, architects, urban designers, technicians and other professionals is required to work closely together in order to achieve a similar goal.

UN-Habitat (2015) indicates that there are poor policy and legislative frameworks and a lack of political will in areas where public spaces are involved. These poor policy and legislative frameworks will not protect the land which is earmarked for creation of public spaces from invasion. These will lead to public land invasion which provides extreme benefits to the private sector over the use of public spaces. Policy and legislative frameworks that play a crucial role in protecting the public land which is earmarked for the creation of public spaces should be strengthened. The planning and design of public spaces must play a significant role in fostering

inclusive and well-designed places which are environmentally sensitive and well-connected. Transportation modes and land uses should complement each other. The location of public spaces is seen as a major attribute that must be seriously considered when planning and designing public spaces. Authors such as Landman (2006); CABE (2010); and Carmona (2010) indicate that spaces need to be easily accessible as those that are not in close proximity to neighbourhoods will exclude non-motorised users.

Planners must play a fundamental role when it comes to planning and designing of public spaces through guaranteeing that the planned and designed spaces provide a mix of primary uses. Public spaces must play a pivotal role in drawing in a high concentration of people; it should encourage diversity and also take into consideration nodes, districts, paths, edges and landmarks (Jacobs and Appleyard, 1987 and Lynch, 1960).

For public spaces to meet the needs of the local community good design was identified as one of the factors that can draw people into public spaces. Cities like East London must be 'designed to live together' and urban planning is singled out as one of the town planning instruments that can play a significant role in achieving this (UN-Habitat, 2015). There is also a need for designers to pay attention to good design in order to minimize continuing public space deterioration and abandonment. One reason is that design of the built environment settings significantly encourages how people interact with each other. Gencel and Velibeyoglu (2006) indicate that the design of a place can influence the choices that are made by people at various levels ranging from its physical availability and presence, the opportunities for use and the extent to which people can put their own stamp on a place. Physical features also play a fundamental role in influencing the level of comfort of a place, regarding aspects such as seating, quality of the materials, urban furniture, inclusive design, and consideration over shading and microclimates (Gencel and Velibeyoglu, 2006). Well planned and designed public spaces must address the needs of public space users in order to rebalance their lives, providing a refuge from the hustle and bustle or a place that can be developed by people through learning and having new experiences (Ryan, 2006). People are required to connect and have a bond with their environment and experience a sense of belonging to feel good being in a space which offers the good life (Ryan, 2006). Cities that have quality public spaces attract people to venture outside their homes, communicate and work together with each other, and participate in public life. This is why the assignment to establish and create 'public spaces for all' is resting in the hands of urban planning and design fields. The introduction of design which caters for a variety of uses is seen as important because the preferences for public spaces differ between

generation and races. It is fundamentally important for public spaces to integrate the needs and desires of the people.

2.9.5 Human comfort

Montero (2001) indicates that a feeling of comfort is one of the factors that determines the liveliness and success of public spaces within the community. With regard to this research study, comfort within the public spaces is judged by two elements viz. climatic conditions and security. These issues are regarded as aspects that can contribute significantly in determining the presence of people in public spaces. It is important to define the term 'comfort' before discussing climatic and security concepts. As a result, human comfort may be described as follows:

“Comfort, at a minimal level, implies a freedom from pain on all dimensions of environmental experience. Biological comfort has to do with a person’s assessment of the level of stimulation to which his or her body is being subjected.” (Lang, 1994:221)

Lang (1994) includes the metabolic aspect in the term 'comfort'. The metabolic comfort of a person within public spaces is highly dependent on the person’s activity, the air temperature, humidity, radiation, air movement and the clothing worn.

2.9.5.1 Climatic conditions in public Spaces

Fataar (2017) indicates that a number of public spaces in contemporary cities like East London are developed and designed with little consideration of climatic conditions. This has negatively affected the potential of public spaces to meet human needs and preferences. Lang (1994) indicates that majority of urban designs and renovation activities of public spaces are undertaken without fully taking into account environmental factors such as wind direction, sun intensity and temperature. Some of the consequences of not considering such environment factors are the development of unattractive streets and poorly sited public spaces situated on unsuitable sides of buildings. Not taking environmental factors into account has led to the development of several unpleasant public spaces which are not inductive to comfort, which do not meet the public’s physical needs and which discourage social life which is so essential for the cultivation of a sense of community. This leads public space users to have bad experiences when they are visiting public spaces.

The bio-physical environment sometimes has negative impacts that can affect human comfort in public spaces. The bio-physical environment is made up of climate, temperature, rain, soil. A more detailed description of these bio-physical environments is represented in Chapter 4 of this research. A number of studies were conducted regarding the negative effect of the bio-physical environment on the urban spaces. The identified bio-physical environment factors affecting the metabolic comfort of people in public spaces in the City of East London are high levels of temperature, sun and humidity that are attributes of hot-humid climates. Measures that should be implemented in the City of East London must be related to minimizing hazards from storms and floods, reducing thermal discomfort from severe sun incidence and heat, supplying adequate shade for outdoor surfaces and taking advantage of the prevailing sea breezes (Givoni, 1998 and Marcus, 1998). High levels of heat and humidity around the City of East London contribute to the limitation of the number public space users in public spaces. Marcus and Francis (1998) indicate that high levels of humidity when mixed with high temperature are identified as uncomfortable to the people. The existence of natural features such as trees, fountains and water features can play a significant role in changing the level of humidity within public spaces such as parks, streets, and plaza. Breezes can assist in minimizing the negative effects of humidity which can be directed to public spaces. Reducing thermal discomfort among public users within Duncan Village includes: supplying shade for pedestrians and any outdoor activities, good airflow around public spaces and minimizing the “heat island” effect in densely built areas (Givoni, 1998). The “heat island” effect which takes place in high-density urban areas is characterised by poor ventilation and a strong heat accumulation effect. It is predicted that negative effects such as the “heat island” effect mentioned by Givoni (1998) is likely to occur in East London. Urban designers and planners are blamed for this effect since they did not predict the possible climatic impacts of their work over the public spaces. Failing to think carefully about temperature, sun incidence and humidity in East London could result in negative effects over the public spaces.

Environmentalists have identified another effect of climate over people that influence people’s attitudes and behaviour in East London. Cassidy (1997) is of the view that once temperatures are severe within an urban built environment setting, the effects will not only affect people’s behaviour towards climate and create a feeling of discomfort, but it will also encourage stress and aggressiveness. This plays an important role in influencing the planners and designers to address the climate in public space design and planning and also to take into account the psychological influence of harsh climate conditions over people’s behaviour in public spaces. In

order to have successful public spaces in Duncan Village, the climatic factors should be incorporated in the planning and designing of public settings.

From the information above, site analysis is seen as an important aspect to consider before planning and designing public spaces that will be able to meet the public's needs. Hyde (2000) indicates that aspects such as the density of buildings, land coverage, height of buildings, orientation and width of streets, subdivision of blocks, the location of public spaces and location of water features can play a significant role in modifying urban climate at the microscale level. Microscale urban environment assists in providing shade for warm climates, which is important and contributes to comfort. Large buildings within or next to public spaces can be a concern. To support the previous statement, large buildings have the ability to absorb heat into the public spaces and by doing this they can create heat for public space users. For planners and designers of public spaces to minimize harsh microclimatic conditions, when it comes to microclimatic data, they must conduct a situation analysis of the study area. This process involves the study of wind flow, sun path, sun radiation effects, vegetation, topography, rain, air temperature, location of hot spots, surrounding building massing and density, water tables and the location of natural features; some of these environmental aspects will be discussed further in Chapter 4. Chapter 4 will be undertaking an environmental analysis of the study area wherein the data collected is associated with the existing urban public space uses. This will assist in providing an understanding of the climate and the environmental problems of the urban spaces. This is regarded as a fundamental aspect to consider in planning, architecture and urban design. According to Hyde (2000), a microclimatic study is a prerequisite for "climate responsive design".

Climate is identified as a vital aspect that plays a significant role in determining human comfort levels in public spaces and the social life which leads to public's needs to be attained within public spaces. For that reason, it was indicated above that climate plays a fundamental role in planning and urban design and people's ability to fully enjoy and experience public spaces. The climatic issue has become one of the most well addressed topics globally because of the effects of global warming. Climatic factors are viewed as determining factors that enable vivid public life, the amount of users experienced within public spaces and the activities that are conducted by people in those public places. Failing to address these issues, human needs within public spaces will no longer exist and the purpose of public spaces will be not attained. The climatic issues will be thoroughly analysed in Duncan Village in order to obtain the user's reactions

towards heat and sun incidence and the physical condition of public spaces that affect their comfort and use of such spaces.

2.9.5.2 Security in public spaces

According to Lang (1994), when the needs of survival and basic comfort are met, the community pays attention to the fulfilment of security and safety as one of the basic human needs. He indicated that safety and security play a vital role in fostering a sense of community and social life. Montero (2001) indicates that two types of security and safety need were identified which designers should incorporate into their work. These needs are as follows: physiological and psychological needs that influence sense of place, and sense of community from a geographic and social point of view. It was indicated that physical security is obtain when the public space is safe from criminal activities and other unlawful activities. Lang (1994) stressed that in order to attain psychological security people should be protected from the unexpected things and should be in control through being familiar with the social and physical environment in the public space. Montero (2001) explains that the sources of insecurity are rely on how people handle the issues of criminal activities through their demands for safety and the degree of competence with their public spaces and the sources of crime. Lang (1994) stressed that psychological security is seen as a vital notion which must be handled by designers in their work and this is obtained through getting peace of mind and people's control over their lives. He further indicates that well-designed public spaces have a positive influence on obtaining control that plays a significant role in offering security and territoriality.

With regard to security, Montero (2001) identified that it is important to know who the users of a public space are as this can play a role in attaining well-designed and planned public spaces that can foster and influence the attainment of community's needs, preferences and sense of place. The perceptions, preferences and experiences of public space users towards security play a fundamental role in upgrading and maintaining existing public spaces and contribute greatly in planning and designing new public settings that address security concerns. Montero (2001) says that the presence of undesirables such as homeless is not often associated with criminality, but rather with a sentiment of offense and embarrassment or guilt at seeing the less fortunate in public spaces. Marcus and Francis (1998) are of the view that offering inviting uses for a variety of people can encourage the provision of opportunities for interaction with different people within a society and that can encourage social tolerance and a feeling of security.

A feeling of security is one of the aspects considered important to a lively and successful public space (Montero, 2001). She further indicates that it relies on a number of different factors. Several researchers and authors have indicated that visibility within the public space is viewed as an important factor that plays a significant role in the attainment of security (Lang, 1994; Montero, 2001 and CABE, 2008). Crowe (2000) indicates that visibility in the form of natural surveillance provide opportunities for individuals to be seen by others and get assistance if they are victims of any type of crime. Crowe (2000) supports his statement by saying if there is a large number of people in a public space the sense of security is increased and the chances of being seen by others are greater. Montero (2001) and Crowe (2000) revealed that highly visited public spaces play a significant role in increasing the sense of security. Montero (2001) articulated that the existence of mixed land uses around and within public spaces promotes non-stop activities and the presence of people. As a result, natural surveillance will always take place. Crowe (2000) identified that public space that provides opportunities for a variety of activities to occur can attract the presence of many uses and people which will increase visibility and the feeling of safety. Special or programmed events within public spaces have the potential to play a fundamental role in influencing and fostering people to use them and thus increasing urban safety through visibility (Montero, 2001). Wekerle and Whitman (1995) identified that lack of visibility and or not knowing what lies ahead on a route provokes feelings of insecurity. As a result, supplying “visual permeability” and clear sightlines is viewed as an important mechanism to be implemented in order to attain security. People are discouraged from using gaps or confined areas in public spaces that are isolated (Montero, 2001). By doing this crime will be minimised. It is suggested that when walkways are implemented they should be created in a manner which will enable people not to feel trapped. According to Wekerle and Whitman (1995), incorporating emergency telephones and video cameras in those spaces is recommended as they can be helpful in capturing crime or allowing for emergency calls.

Wekerle and Whitman (1995) identified that urban safety also relies on being familiar and having knowledge (awareness) about the surrounding environment and the possibility of obtaining help. They further indicate that although these two factors are related to visibility they have positive influences on increasing the sense of security within a public space. According to Wekerle and Whitman (1995), awareness of the environment is a process which is obtained when the public space layout is comprehensible by the users, when it is possible to identify the surrounding environment and know what is ahead. They further noted that it can be achievable through the provision of adequate lighting, clear sightlines and the elimination of entrapment areas. Through upgrading and improving lighting in public spaces the fear of crime will be

minimised, chances of visibility will be increased, residents will feel safe to utilize the public spaces at night as offenders will be easily exposed and the victims will quickly receive help. According to Montero (2001), finding help requires having the opportunity of being assisted in case of attack. The process of finding help involves the following: the presence of signs that show the direction to areas where a victim can be assisted or helped, maps which help people know where they are and where to go if they need help (Montero, 2001).

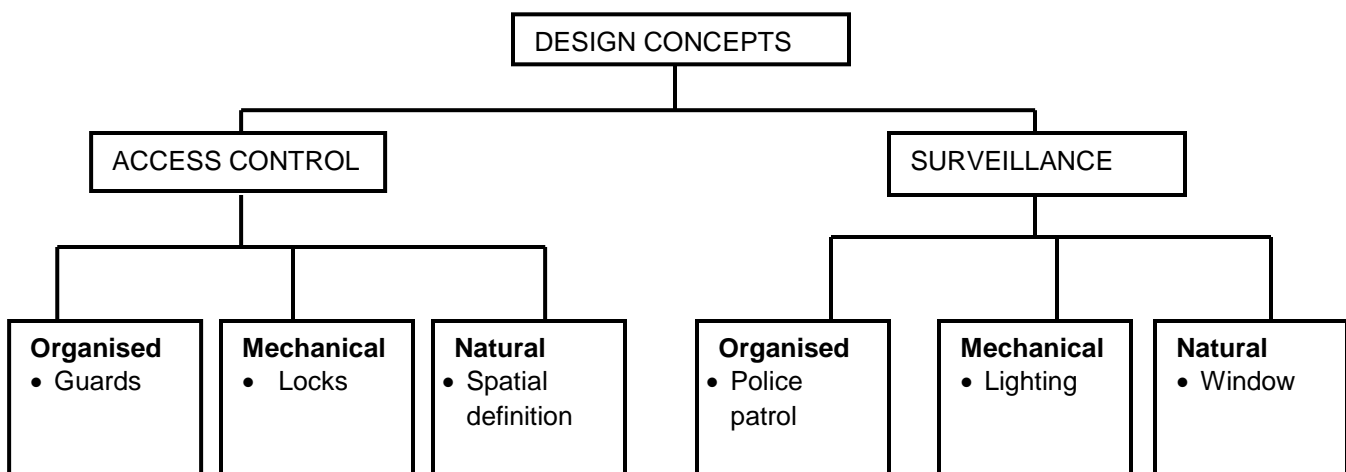
The image of a place is identified as another factor that plays a vital role in contributing to the notion of security (Montero, 2001). According to Wekerle and Whitman (1995), the legibility and aesthetic value of a place contributes to the creation of a sense of security. Usually unaesthetic public spaces that are not well-maintained and are full of litter, graffiti and damaged amenities discourage use and contribute to feelings of insecurity (Montero, 2001). Public space design should play a major role in providing quality and beauty, legibility and signage which avoids confusion and ambiguity for users. Although this aesthetic approach improves the image of the place, it is not the main aim for guaranteeing safety in public spaces on its own (Wekerle and Whitman, 1995).

Crowe (2000) indicates that Crime Prevention through Environment Design (CPTED) is one of the most recent contributions to security within public spaces. He described CPTED as a set of strategies that designers can implement in order to minimize the crime rate within public spaces. Crowe (2000) is of the view that CPTED has a strategy that allows the environment to be manipulated in order to foster behaviour that will minimize the incidence of crime and also contribute positively to improvement in the quality of life. He further stressed that this can be achieved through minimizing the physical environmental conditions that attract criminal behaviour. The security concerns embrace the concept of territoriality which relates to access control and surveillance as other ways of reducing crime (Montero, 2001). She further explains that territoriality is one of the ways that can be focused on generating a sphere of influence where users or inhabitants of a place promote a sense of proprietorship or territorial influence that is perceived by offenders.

Crowe (2000) points out that CPTED takes into account the design of physical space which is geared towards physical, social and psychological needs, and involves the intended uses of those spaces and the expected behaviour of both users and offenders. Crowe (200) indicates that CPTED has strategies that can be categorized into two areas viz. access control and surveillance. Access control is seen as one factor that has potential for decreasing the

opportunities for crime occurring within a built environment setting. Its aim is to disallow access to a crime target and to create the perception of risk in offenders (Crowe, 2000). He further explains that access control can be categorized into three areas which are as follows: organized access control (made up of the presence of guards and policemen); mechanical access control (which includes locks, electrical gates and cameras) and natural access control (which is achieved through spatial definition and people presence). Crowe (2000) defines surveillance as the potential to see what is happening within the public space. He indicates that surveillance includes aspects of the physical design such as lighting and the presence of security personnel and surveillance cameras. Crowe (2000) stressed that surveillance design strategy aims at keeping intruders under observation and watching in order to attain the safety of people who make use of public spaces. Access control strategies and surveillance strategies have something in common since both are classified as organized, mechanical and natural (Crowe, 2000).

Figure 2-6: Access control and surveillance classification



Source: Crowe (2000:67): Crime Prevention Through Environmental Design

Crowe (2000) indicates that his CPTED theory articulated six factors related to access and surveillance which are viewed as important design considerations that could be incorporated in the creation and arrangement of new and existing public spaces in order to reduce crime.

Crowe (2000) points out that access control and surveillance play a fundamental role in influencing and fostering a sense of territoriality that will encourage people to take care of their territory and incorporate security, build crime awareness, and encourage a greater perception of risk. Crowe (2000) indicates that the CPTED's main aim is to prevent crimes within the society

and also ensure that criminals will be seen and observed through the use of CPTED and also make criminals less likely to commit crimes because of the fear of being caught. CPTED supports the places that require rigorous management in order to become safer for users (Crowe, 2000). As Montero (2001) notes that these strategies can be implemented within public spaces in order to obtain greater security outdoors.

A number of factors mentioned above have positively contributed to how needs and preferences can be obtained within public spaces. Through attaining a sense of security within public spaces, human needs and preferences, a sense of community and sense of place are created among the residents. The statements above indicate that visibility is one of the factors that encourages and increases security. The awareness of the environment, the image of the place, opportunities for finding help and access control and surveillance are other factors which can encourage the sense of security within any type of public space. Designers and planners are encouraged to adhere to the factors mentioned above in order to provide secure public spaces. Through awareness of what causes fear of crime and what measures need to be put in place to combat it, it is possible to observe and analyze factors that encourage the high rate of crime in Duncan Village. Ndaba and Landman (2014) are of the view that public open spaces need to be well designed and conserved in a manner which reduces violence and the crime rate while at the same time building trust within communities.

To sum up, knowing the factors that affect the functionality of public spaces is crucial since it allows the researcher to have ideas on how public space users experience public life in existing public spaces. Knowing the experiences of public space users through assessing the factors that affect functionality of public spaces and interviewing public space users forms a focus of the study. It also allows the researcher to compare what different public space users think about the functionality of existing public spaces after checking all factors that might play significant roles in meeting local people's needs and preferences in terms of what types of public spaces should be provided, how existing ones should be upgraded and maintained, and where new public spaces should be located.

2.10 Conclusion

Public spaces play a vital role in shaping our cities. There are various definitions of public spaces advanced by a number of researchers. People view public spaces differently and this is one of the factors that contribute to having different definitions of public space. Public spaces

provide a number of benefits and offer quality urban public life to the public space users. The literature identifies the physical and functional qualities of public spaces as follows:(1) sociability, (2) uses and activities, (3) access and linkage and (4) comfort and image.

There are different perceptions among the community with regard to the importance of public spaces within societies. The literature review indicates that different perceptions of community towards public space should be incorporated in planning and designing new public spaces. There is a dire need for provision of public spaces especially in townships because various public spaces promote social, economic and environmental development. Townships like Duncan Village are characterized by high rates of poverty and unemployment and public spaces could allow for self employment among residents.

A number of typologies of public spaces which form part of the conceptual base of the literature review were identified. The researcher felt that those typologies of spaces are cumbersome for ordinary people to understand. From a study of research by Carmona (2010a), Al-hagla (2008) and Stanley, Stark, Johnston and Smith (2012) who identified a number of different typologies of public space, the researcher produced a simplified typology of public spaces that can be easily understandable by the local residents of Duncan Village. The researcher is of the view that developing a typology of public spaces can orientate the methodology of the research. The typology of spaces can assist in generating questions that are going to be posed to the local residents of Duncan Village (such as what type of public spaces are preferred by local residents and what type of activities should be accommodated within those spaces).

Table 2-6: Typologies of public spaces

Public Space	Definition	Activities offered
Urban Park	A well planned and designed public setting that consists of vegetation and water for public uses	Recreation, walking, sitting, running, formal and informal trading, relaxation, social interaction among different people, playing
Plaza	A public setting within a built-up area that has shops and civic buildings	Walking, sitting, running, formal trading, relaxation, social interaction among different people, playing.
Street	A public road within a neighbourhood	Walking, sitting, running, formal and informal trading, relaxation, social interaction among different people, playing.

Source: Researcher (2017)

For public spaces to be used by different people, the literature review pointed out that the public spaces must accommodate activities that they require. Failing to provide activities that attract users to the settings will make the public spaces unsuccessful. It is important to engage the

users in the development phases of public spaces so that the users will articulate what types of activities should be accommodated in a specific setting.

Public space users consist of all people who are free and have access to visit the built environment settings. Regardless of race, age, gender and income status, public spaces should be planned and designed to accommodate all people within the neighbourhoods.

The literature review identified that public spaces should be located in strategic locations where all public space users can access them at anytime. The distance between the neighbourhood and public spaces should be short, for example between 1-1.6km, in order to make it accessible for pedestrians. Some researchers have argued that the distance between the neighbourhood and public space should be bigger for pedestrians to exercise and develop physical fitness.

The literature review indicates that without place-making of public spaces, there are a number of factors that affect the functionality of public spaces. These factors are as follow: accessibility, management, ownership, safety and security, climate, planning and designing. It is advisable that when developing different types of public spaces, these aspects should be incorporated in the development processes from the initial to the final phase. This will encourage people to use the public spaces that meet their needs and aspirations.

The literature review articulated a number of physical and functional qualities of spaces. For the purpose of this study, the above physical and functional qualities of public spaces should be incorporated in the different types of public spaces that are preferred by local residents of Duncan Village so that those preferred public spaces will be play significant roles in ensuring that local residents' needs and preferences are met. The functional and physical characteristics of public spaces will be contribute to the design and planning of different types of public spaces that are preferred by local residents of Duncan Village. The physical and functional characteristics of public spaces addressed physical and functional factors that affect the functionality of different types of public spaces. For different types of public spaces preferred by the local community of Duncan Village, it is vitally important to take into consideration the physical and functional characteristics of public spaces.

There is a great deal of literature available for perceptions, preferences and experiences of residents towards different types of public spaces, but a larger of portion of this literature is focused on European and American countries. There is insufficient literature on perceptions,

preferences and experiences of residents towards different types of public space within the region of Eastern Cape Province in South Africa.

Knowing what other authors have identified about the physical and functional variables in public spaces can assist in understanding what should be observed and surveyed in certain public spaces within Duncan Village in connection with this matter and orientate the methodology which is going to be conducted in the study.

The following chapter presents the methodology which will be used to collect data from the selected respondents.

3 CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

According to Berg and Bruce (2009) research methodology is defined as a systematic way that plays a significant role in solving a problem. It is a science of studying that indicates how research is being carried out. Creswell (2014:4) defines research methodology as the procedures followed by researchers when they conduct their work of describing, explaining and predicting phenomena.

The aim, objectives and literature review related to the perceptions, preferences and experiences of residents towards different types of public spaces and how they contribute to a sense of community played a vital role in orientating the methodology of this research. The methodology contributed to an understanding of how the research was undertaken and arranged to obtain information that enhance the public space settings in Duncan Village in order to meet human needs. These human needs are safety and security, activities to be provided, different types of spaces to be provided, human comfort and a sense of community and also preferences in terms of the provision of public spaces and how existing public spaces can be upgraded and maintained to be beneficial to the local residents.

3.2 Research approach

This study was conducted using a qualitative research approach. According to Creswell (2014), qualitative research methods are considered to be very useful since the researcher and respondents' intention to answer questions centres around the 'how' and 'what' of a study". The 'how' and 'what' questions incorporated in the research questions make the qualitative approach appropriate for the study.

The nature of this study is explorative and descriptive. Denzin and Lincoln (2011:56) indicate that qualitative research is "*naturalistic; it try to study the everyday life of different groups of people and communities in their built environment setting; it is seen as vitally important to study built environment settings that aimed to uplift the living standard of the communities, and processes; qualitative research entails an explorative, interpretive, naturalistic approach to its subject matter; it attempts to make sense of, or to interpret, phenomena in terms of the meaning people bring to them*". Domegan and Fleming (2012:6-7) stress that qualitative research is targeted on exploring and discovering issues that have to do with the problem on hand, because

there is little information available about the problem. There is always doubt about dimensions and types of problem. According to Locke et al. (2013:64) qualitative research is formulated in order to assist researchers comprehend the people, and the social and cultural contexts within the society in which they live. These types of studies play a significant role in surfacing the complexities and differences of the issues for exploration and representation (Fink, 2012:11).

Denzin and Lincoln, (2011:56) indicate that qualitative research provides data in the form of descriptive narration which consists of words and attempts that are required to comprehend phenomena in “natural settings”. Qualitative researchers attempt to make sense of, or to explore and interpret, phenomena in terms of the meanings people bring to them.

Rossmann and Rallis (2013:45) articulate five useful research purposes offered by qualitative studies:

- Understanding the meaning that participants in a study give to the events, situations and actions that they are involved with and of the accounts they give of their lives and experiences;
- Understanding the particular context within which the participants act and the influence this context has on their actions;
- Identifying unanticipated phenomena and influences, and generating new grounded theories about them;
- Understanding the process by which events and actions take place; and
- Developing causal explanations.

Creswell (2013) notes that qualitative case studies in built environment settings are frequently framed with concepts, models and theories. An inductive method has been employed in order to support or challenge theoretical assumptions. Despite the fact that the research process in qualitative research is inductive, Creswell (2012) observes that most qualitative research naturally moulds or changes existing theory in that:

- Data are analysed and interpreted in light of the concepts of a particular theoretical orientation;
- Findings are usually discussed in relation to existing knowledge (some of which is theory) with the aim of demonstrating how the present study has contributed to expanding the knowledge base.

However, Lincoln and Denzin (2011) stress that qualitative research that plays a significant role in acknowledging the researcher's subjectivity, should identify the biases, motivations, interests or perspectives of the inquirer and made them explicit throughout the study.

To summarize this section, the research was conducted using a qualitative approach. Qualitative research is seen as a methodological examination that has to look thoroughly into the nature or qualities of complex social group behaviours through the introduction of explorative, interpretive and naturalistic approaches. Qualitative research accommodates itself to broad exploration and description of the community's behaviours in their natural environment. It seeks to be a non-manipulative approach and considers the composed ideas contributed by respondents. The aim in this type of research is objectivity. Qualitative research is considered to be more useful and appropriate when the researcher is aiming to be familiar with the phenomenon of interest. It allows the researcher to obtain a thorough understanding of how the respondents think about a topic and to describe the perspectives of the research respondents in detail.

3.3 Research design

Creswell (2012) defines a research design as a general plan where important and attainable empirical research is linked to the conceptual research problems. Therefore, the research design articulates what type of data is needed, what methods will be used to gather and analyse the data, and how this will answer the research questions.

Babbie (2007:43) is of the view that research design is the framework that has been formed with the aim of seeking right answers to research questions. As a result, the researcher in this study interacted with the right respondents to assist him to achieve the research objectives.

Research design can be identified as a strategy or master plan that specifies how the study should be conducted. Berg and Bruce (2013:16) are of the view that the research design can be defined as the actualisation of logic in a set of procedures that contribute immensely in optimising the validity of data for a given research problem. Mouton (2011:34) defines research design as a research instrument that seeks to "plan, structure and execute" the research in order to maximise the "validity of the findings". It plays a fundamental role in providing directions from the essential theoretical assumptions to research design, and data collection. As held by Yin (2012:19) that research design "*is an action plan for getting from here to there, where 'here'*

may be defined as the initial set of questions to be answered and 'there' is some set of (conclusions) answers".

3.3.1 Case study strategy

A case study is identified as another path that can play a significant role in conducting meaningful research, it might be a social science or socially related because its aim is geared towards comprehension of society's members in a social context through exploring and interpreting their actions as a single community. According to Yin (2009:45), a case study is defined as an investigation that is conducted in order to provide answers to specific research questions which require a variety of different evidence from the case settings. A case study is defined as an experimental investigation that explores a contemporary phenomenon that exists within its real-life context, more especially when the boundaries between phenomenon and context are not clearly defined (Yin, 2012:64). The case study approach is seen as important in circumstances where contextual situations of the aspect that is being studied are crucial and where the aspects being unfolded are not controlled by a researcher. Ritchie and Lewis (2003:74) identify the main defining aspects of a case study as being "multiplicity of perspectives which are rooted in a specific context".

McMillan and Schumacher (2011:9) are of the view that a case study scrutinizes a bounded system or a case over time in detail and makes use of various sources of data that are found in the built environment setting. Therefore, a case might be seen as a program, an event, or an activity that is bounded between time and place. All gathered data can play a significant role which contributes to providing the best answers to the research questions. As a result, the researcher might get a sharpened understanding which plays a fundamental role in articulating why the case study took place as it did, and what important aspects need to be taken care of in future research. A single case study research design was undertaken in this study. In this research, Duncan Village Township is the case study. Creswell (2014:18) gives emphasis to the single case study's appeal in the fields of planning and architecture, especially its effectiveness when used to test a "specific instructional strategy".

The explorative, descriptive and interpretive approach which was adopted by the study allowed the single case study methodology to be considered and employed because it offers a logical and systematic way that can be of assistance in collecting, and analyzing data and in reporting

the results, thus allowing the researcher and participants to comprehend the existing problem in great depth. The case study methodology promotes the following:

- It allows a number of respondent perspectives regarding the types of existing public spaces in Duncan Village and their preferences with regard to preferred types of public spaces to meet users' needs and activities in order to attract residents to public spaces. It collates what local people think and their experiences in terms of factors that affect functionality of existing public settings such as the Douglas Smit Highway;
- It allows a number of data collection methods to be employed in the study

The following four important characteristics of a case study were identified by Merriam (2013): *particularistic, descriptive, heuristic, and inductive*. Particularistic is defined as one event, process or situation that is regarded as the focus of a study. Descriptive is explained as the rich and extensive set of details relating to the phenomena. These two concepts are seen as heuristic because they influence the understanding of the phenomena, whereas inductive is described as the form of reasoning that can be utilized to indicate generalisations or concepts that are likely to emerge from the data (Merriam, 2013).

Yin (2014) stresses that case studies do not operate as representative, but they emphasize what should be learned from a single case. Case studies play a significant role in advancing essential knowledge in areas that have relevant knowledge. According to Creswell (2014) the fundamental philosophy of single case study is "not to prove but to improve". Undeniably, this research seeks to identify the perceptions and experiences of Duncan Village residents towards different types of public spaces and to improve the status of existing public spaces in the study area. It also seeks to identify local community members' preferences for types of different public spaces.

Looking at the explorative, descriptive and interpretive nature of the study, the researcher strongly believes that the case study approach is one of the best strategies that can be employed in this study because it has the ability to reveal in detail the unique perceptions, experiences and concerns raised by residents pertinent to the types of existing public spaces in Duncan Village and also the preferences of local community members towards types of public spaces that should be provided in order to meet local people's needs. Yin (2012) stresses that the case study design is most suitable for circumstances or situations where it is very difficult to separate a phenomenon's variables from its context.

3.3.1.1 Selection of the case study area

Duncan Village Township is the selected study area. Numerous aspects were considered in the selection of this study area. These aspects include: (i) the unique history of Duncan Village, (ii) the location of the study area (iii) density of the area (iv) population of the area (v) the economic and social potential.

In terms of the history, Duncan Village has a unique history with land which was earmarked for the development of different types of public spaces occupied by informal settlements. People migrated in large numbers from the rural areas of former the Ciskei and Transkei areas to the City of East London in order to seek better opportunities. Duncan Village is the first black township area in the province of the Eastern Cape where former president Nelson Mandela introduced the presidential redevelopment programme (Duncan Village LSDF, 2008). This programme also focused on the provision of different types of public spaces where local community members could interact with each other and enjoy the economic, social and environmental benefits offered by public spaces.

With regard to density and population, Duncan Village has population and population density which can make use of the preferred different types of public spaces within the study area. Duncan Village has been selected to provide public spaces that play significant roles in offering personal, cultural and social experiences. Duncan Village has the potential for economic, social and environmental development which can be accelerated if different types of public spaces are provided. CABE Space (2008) indicated that public spaces play significant roles in the economic, social and environmental development within societies.

3.4 Research methods

Creswell (2014) indicates that research methods are seen as variety of procedures, schemes and algorithms used in research. Research methods play a vital role in assisting researchers to gather or collect data that can be used to find a solution to an identified problem. Four (4) qualitative data collection methods were used in this research study are discussed in detail below:

3.4.1 Graphic and other visual approaches (cognitive maps)

Polič et al. (2002) stress that graphic and other visual approaches (cognitive maps) that determine how people imagine their environment and spatial relations, provide important data

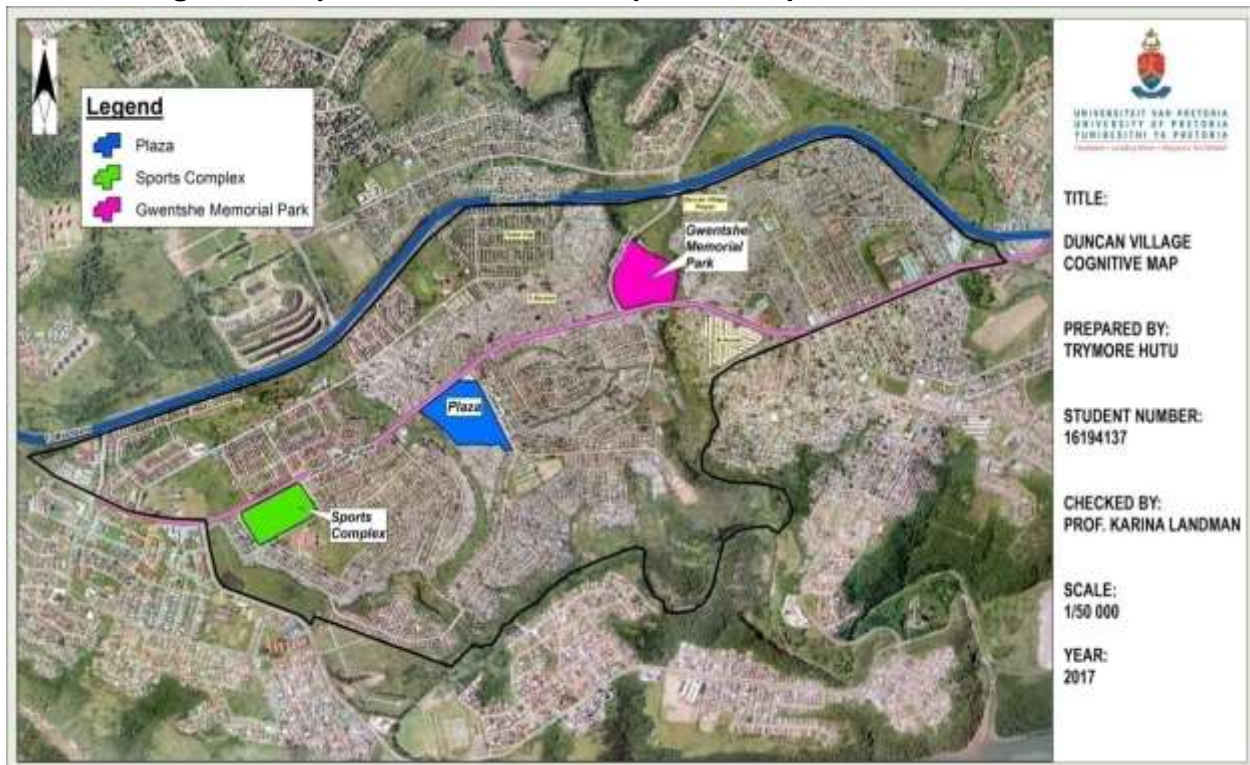
that will be used to plan, design and establish successful public spaces. They represent each community member's mental representation of public space, which is a result of cognitive mapping of the environment, with location and content information. In this process a socio-spatial schema method was used (Lynch, 1960; Lee, 1976). Polič et al. (2002) indicate that on a cartographic map, participants identify and circle the areas they always use, the area they regard as their own, the area they like and so on. This method has most frequently been used to determine the preferred area where spaces were going to be developed within three neighbourhoods of Duncan Village. In research on the perception, preferences and experiences of local community members towards different types of public space, it has also been used to indicate areas where community members are not comfortable (Polič et al., 2002). One of the advantages of this method is that it offers fairly accurate spatial locations for participants' answers.

For the purpose of the study, cognitive maps play a crucial role in assisting the residents to identify the types of public spaces in different locations within the society of Duncan Village. During the process of choosing preferred public spaces by the residents, the researcher came up with a typology of spaces which might match what the participants were going to choose as their preferred spaces. The researcher did not show the participants the spaces he had already come up with. He did this in order to compare his typology of spaces with participants' typology of spaces. The typology of spaces which was drafted by the researcher was made up of a park, streets and a plaza. During the sessions of collecting data on preferred spaces from residents, the majority of participants chose the following spaces: a sport complex, a park, and streets because they were familiar with these spaces. Only a few participants chose a plaza to be provided in the study area. Those who identified a plaza as a preference did so because they were familiar with it from visits to cities like Johannesburg and Port Elizabeth (eBhayi). They also knew the structures of a plaza and its importance to the community of Duncan Village. The researcher realised that he needed to explain the importance of a plaza to other participants so that they could consider it in their typology. Through the use of existing literature about the importance of the plaza, many participants became convinced of its value in terms of the economic development of Duncan Village. After this exposure to the idea of the plaza, the majority of the participants included the plaza in their typology. Since the majority of the participants indicated that they wanted a plaza to be included, all spaces which had been drafted by the researcher were also found in the participants' typology. The final typology of spaces consisted of a sport complex, a park, a plaza and streets.

Cognitive maps were used to indicate the location of the public spaces within the study and they also showed the areas where future public spaces should be developed. The researcher printed an A1 sized map of Duncan Village to show the participants so that they could identify areas where preferred public spaces should be located. As indicated in Chapter 2, location plays a significant role in the use of existing public spaces. Cognitive maps were used to identify the distance to the existing and preferred public spaces from the neighbourhoods. PPS (2014) indicated that public space users prefer to visit public spaces that are within close proximity to their neighbourhoods. Polič et al. (2002) indicate that having knowledge of distance is vitally important for planning and designing any strategy of spatial behaviour. Cognitive maps were used in this study to offer directions to the public spaces as was seen as a factor that needed to be addressed in planning and designing public spaces. Direction is vitally important to community residents because without it they would get lost if they want to visit public spaces. Polič et al. (2002) indicate that by combining distance and with proper directions community members can be guaranteed to find the location of their targeted destinations.

Streets are the only major existing public spaces within Duncan Village, but the cognitive map below indicates other types of public spaces preferred by local residents of Duncan Village Township.

Plan 3-1: Cognitive map showed locations of preferred spaces



3.4.2 Interviews

Interviews are one of research methods that are employed to gather useful information. Interviews can use oral questions from a set of preplanned core questions (Leedy and Ormrod 2014). Shneiderman and Plaisant (2005) indicate that interviews are very productive because the interviewer can pursue specific issues of concern that may lead to focused and constructive suggestions. Genise (2002), and Shneiderman and Plaisant (2005) articulate a number of main advantages of the interview method of data collection as follows:

- a) Direct contact with the users often leads to specific, constructive suggestions;
- b) They are good at obtaining detailed information;
- c) Few participants are needed to gather rich and detailed data

Interviews can be unstructured, structured, and semi-structured with individuals, or they may be focus-group interviews depending on the research needs and design. In this case, the study employed both semi-structured interviews and focus-group interviews.

3.4.2.1 Semi-structured interviews

Semi-structured interviews are used in qualitative research to gather data. They consist of a number of open-ended questions derived from the research topic (Leedy and Ormrod, 2014). Open-ended questions allow the researcher to discuss the research topic in a detailed manner and also to assist the interviewees to understand what the study is about.

The aim of the semi structured interviews was to gather data on the preferences, perceptions and experiences of local residents towards different types of public spaces in Duncan Village Township and also to solicit knowledge on what types of public spaces are preferred by local residents. The majority of the participants who formed part of the sample for the research were interviewed using a face-to-face approach. A detailed semi-structured interview schedule which consisted of open-ended questions was used to gather information from the selected participants (see Annexure B – Interview schedule).

3.4.2.2 Focus group interviews

Flick (2009) defined focus group interviews as one of the research methods in which a group of people actively participate and express their opinions regarding the issue which is discussed. He further indicates that it is usually a meeting of a small number (from six to a maximum of twelve participants) that are guided in their discussion on a specific topic (Flick, 2009). It permits

the researchers or people to acquire data on participants' viewpoints taken in the context of others' viewpoints. The discussion is based on the researcher's own plan or previously defined questions. The advantage of focus groups is that they allow insight into a diversity of opinions on a specific topic. The focus group was conducted in order to gather information from the children. Five (5) focus group sessions were undertaken and each group consisted of seven (7) participants (children and parents).

Semi-structured interviews and focus group interviews were conducted with selected respondents (both local public space users and local councillors) of Duncan Village Township in order to find the perceptions, preferences and experiences of local residents. The following groups of public space users were interviewed:

(i) Children with their parents

For ethical reasons focus group interviews with children were conducted with their parents present. PPS (2013) indicates that children are the main users of different types of public spaces. For this study it was important to interview children together with their parents in order to know what types of public spaces and activities they want. It was also a way to solicit information from children about the importance of public spaces to them.

(ii) Young people

Young people were interviewed in order to gather data on their perceptions, preferences and experiences of public spaces. Information was obtained about the need for public spaces, the different types of public spaces, and the types of activities that should be accommodated within the public spaces. UN-Habitat (2015) indicates that public spaces play vital roles in attracting young people. They are safe places where young people can meet away from parental control and guidance.

(iii) Adults

Through interviews, the adults provided information on factors that affect the functionality of public spaces, the need for the provision of public spaces in Duncan Village, the types of activities that should be accommodated in the preferred public spaces, the different types of public spaces to be developed and the perceptions of adults towards different types of public

spaces. Pollock (2014:35) is of the view that the use of public space by adults plays a significant role in adding extensive value to the population through encouraging interaction. Semi – structured interviews were also conducted with local councilors.

The idea behind interviewing all public space users (children, young adults and adults) was to get the views of users so that when public spaces are planned and designed they will accommodate all users in terms of activities to be offered and different types of public spaces to be provided. Public spaces should be universally planned and designed in order to attract all public space users regardless of disability, age, income status and race.

The data collected from the public space users was largely based on the perceptions of the public space users towards existing public spaces; experiences of residents in terms of the importance of public spaces in their everyday lives and preferences in terms of different types of spaces to be provided and locations of spaces. The data on factors that affect the functionality of existing public spaces was collected through interview. The selected respondents also provided the data on the uses and activities of public spaces in Duncan Village Township. They shared their views on how public spaces play a fundamental role in fostering or influencing a sense of community among the local residents.

Before the interview, the data gathering process started, the researcher made contact with the community leaders. The researcher explained the background, aim and objectives of the research to them and underscored the importance of this research to the Duncan Village community. The community leaders (counsellors) were very happy about the research and agreed to assist in the data gathering processes.

The researcher suggested that the counsellors should write the posters and display them on the streets and in other public spaces such as community halls in the different wards. The intention was to notify all public space users (young adult and adults) that a researcher would be collecting data for an academic research project. People would be interviewed and community leaders appealed to community members to assist with the requisite information. They should assure the community that there would be no harm in participating and encourage participants to volunteer and co-operate in providing information. The background, aim and objectives of the research were also discussed and explained to participants who were willing to be interviewed and a call was made to participants to complete a Consent Form as this was one of vital components of the research process. A large number of community members were willing to be

interviewed and they were happy because they hoped that through this research they would realize the development of different types of public spaces that could play significant roles in meeting local people's needs.

Between July and August 2017 semi-structured interviews were conducted to gather data from the participants. All the respondents or interviewees voluntarily participated during the interview sessions or processes and they had sufficient knowledge on the importance of the public spaces in a disadvantaged township like Duncan Village. The interviews were conducted at Gompo Community Hall, Gompo Public Library and in the streets used by Duncan Village community members as gathering points. The interviews were conducted in English since the interviewees were competent in the language and did not have any objections to using it. The researcher ensured confidentiality to all respondents who participated in the research. The period of the interviews ranged from 40 and 60 minutes. To record the data, notes were taken by the researcher. The data gathering process took approximately 6 weeks. The researcher asked the participants to sketch or draw their preferred typology of spaces and some of the drawings were indicated in Chapter 5.

During the first session of interviews, after ascertaining the participants' preferred spaces and their locations in Duncan Village, the researcher drew a first draft which included a plaza, a sports complex and a park. Then he discussed this with the participants. At this stage, the participants were familiar with the word plaza and the benefits of plaza to the community of Duncan Village. The plans incorporating the sports complex, the public park and the plaza were then amended in order to include the inputs of the participants in the designs. That process led to the development of the diagrams which appear in Chapter 5.

3.4.2.3 Sampling method

According to Maxwell (2012) sampling in qualitative research is regarded as important because of insufficient time and resources that a researcher has in undertaking a study. Flick (2011) described sampling as including decisions that are related to the individuals in the data collection. In simple terms, sampling is regarded as the processes and procedures employed by a researcher in order to select participants who will be included and participate in a research study.

The type of sampling that was employed to conduct interviews (semi-structured and focus group) was purposive sampling. Purposive sampling is also regarded as judgemental sampling (Remler, 2011).

The purposive (judgemental) sampling was seen as the most appropriate non-probability sampling method that was employed to identify local community members from Duncan Village. This purposive sampling method was selected because it promoted the selection of people who have an in-depth and exceptional perspective on the preferences in terms of different types of public spaces to be developed in order to meet local residents' needs, the activities that need to be offered by these public spaces, the perceptions and experiences of local residents towards different types of public spaces.

The respondents in the study were largely made up of the local community members of Duncan Village who played a vital role in indicating how different types of public spaces should be planned and designed so that they would meet the expectations and needs of public space users in terms of social, economic and environmental development in the study area. The selected community members played crucial roles in providing the researcher with substantial and rich information that was geared towards preferred locations of new public spaces, perceptions, and activities accommodated in these public spaces in order for them to be considered as successful and useful to local residents. The community members have extensive experience and knowledge of the existing public spaces such as the Douglas Smith Highway street and Gompo Stadium. Their extensive experience and knowledge played a significant role in providing information on how they perceive existing public spaces. It is indicated that the purposive sampling method has a number of advantages, but Maxwell (2012) indicates that one of the key limitations with this approach is that the findings from a study cannot be confidently generalized due to the population sample as this could cause bias.

3.4.2.3.1 Sampling size

In terms of sample size Maxwell (2012) indicates that qualitative research usually involves a small number of research participants. The small number of participants is related to the intensive and time consuming research method employed during data collection and analysis. The selection method used in this research study allowed community members from Duncan Village to participate in the study in order to articulate their perceptions, preferences and experiences towards different types of public spaces. The overall sample size for this study numbered seventy-five (75) participants. This total figure included Five (5) councilors who were

interviewed during interview sessions. The table 3:1 below shows the breakdown of all participants of the research.

Table 3:1: Space users

Group	Age group (Years)	Gender		Total
		Male	Female	
Children	5 – 17	10	9	19
Youth	18 - 20	6	3	9
	21 - 25	4	3	7
	26 - 30	7	2	9
	31 - 35	5	5	10
Adults	36 - 40	4	3	7
	41 - 45	2	1	3
	46 - 50	1	2	3
	51 - 55	2	0	3
	56 - 60	1	2	3
	61 – 65+	1	2	3
Total		43	32	75

Source: Researcher (2017)

The sample was drawn from the users of public spaces and included a wide range of ability levels, age groups, genders and income groups. The sample for the intended participant survey was conducted using the systematic-random sampling method. The first participant was picked at random and another was picked randomly at an interval of ten metres in public spaces where respondents were available. This was to ensure that the survey covered not only one spatial corner of the study area.

3.4.3 Participant observation

Observation was employed in order to gather information within the study area. In this method, the researcher visited the existing public spaces to observe what happens in the study area and to get information on how the existing public space is maintained. Participant observation requires the researcher to go to the site to observe everything. In the case of this study, activities and uses of public spaces were also observed when the researcher visited the existing public spaces.

Marshall (2006) indicates that participant observation is an important element in all qualitative studies. According to Reason (1994) this method allows the researcher to place himself/herself within the process without causing distraction and participating in the events and processes which he or she needs to describe, and thus becoming a co-researcher with the subjects.

Babbie (2007) stressed that the researcher should get first-hand information on the subject under study as it permits the researcher to associate, observe, hear and experience the reality as the participants do.

The participant observation method has been used in this research through visiting and spending time at the existing public spaces mainly streets such as Douglas Smit High which is the hub of the economic activities of Duncan Village township. This was done in order to identify the activities that occur in the existing public spaces and to ascertain who the public space users are. Observation of the different public space users was done during the day. The researcher visited the streets several times during entire period of data gathering. The dates which were used by the researcher to visit the study area are indicated in Table 3.2 below. The researcher spent approximately four hours in the streets of Duncan Village observing the public users from a distance. As part of the observation, pictures were taken which play significant roles in the data analysis. The researcher also took some notes while observing the public space users.

3.4.4 Document review/analysis

This research method considered the studying, reviewing and analysis of a variety of documents in order to learn and become familiar with past events (Letts et al., 2007). Marshall (2006) and Babbie (2007) observe that sourcing and obtaining data on the historical context of the area under study is very important for qualitative research study. According to Potter (2011), memos, photographs, notes, audiotapes, books, online discussions, manuscripts, and photographs, are regarded as good sources of information since they are well-kept recordings of a person's thought or actions. Documentary analysis was described by Babbie (2007) as one of the ways of sourcing and obtaining information through 'unobtrusive research' and recommended that researchers should supplement this research method with other data collection methods such as participant observation, interviewing and fieldwork or site visits.

With regard to this study a variety of documents focusing on the factors affecting the functionality of public spaces were reviewed in order to compare Duncan Village residents' views of existing public spaces in the study area. Other documents showing the importance of public spaces and the different typologies of public spaces played a vital role in providing information that can be compared with the data gathered by the researcher during the interview sessions and participant observations. Buffalo City Metropolitan Municipality documents were

also analyzed and reviewed in order to have a full picture and to also understand Duncan Village better. A number of municipal sector plans such Land Use Management Scheme (LUMS), Spatial Development Frameworks (SDF), and Integrated Development Plan (IDPs) relating to the development of public spaces within the study area were reviewed and analyzed, as well as books, journals and newspaper articles. The documents play significant roles in providing information on the most frequent users of public spaces, the types of activities and strategies for development of public space that accommodate all public space users regardless of gender, race, age and income status or ability level.

Table 3-2: Research variables

Research Objectives	Key variables / research indicators	Data collection methods	Dates on the activity undertaken
To identify the factors that affect the functionality of existing spaces as perceived by the residents	Community Perceptions of public spaces	<ul style="list-style-type: none"> Interviews (semi-structured and focus group) Document Review / Analysis 	15-07-2017 – 22-07-2017
	Need for public spaces / importance of public spaces		23/07/2017 – 30/07/2017
	Accessibility		31/07/2017 – 2/08/2017
	Public Space Management		3/08/2017 – 5/08/2017
	Ownership		10/08/2017 – 12/08/2017
	Human Comfort <ul style="list-style-type: none"> Security Climatic Conditions 		13/08/2017 – 16/08/2017
To determine the preferences of residents in terms of the functions and types of spaces in Duncan Village.	Types of Public Spaces needed by community <ul style="list-style-type: none"> Streets Plaza Public Park Sport facility 	<ul style="list-style-type: none"> Participant Observation Cognitive Mapping Interview (semi-structured and focus group) 	17/08/2017 – 20/08/2017
	Location of public spaces		21/08/2017 – 23/08/2017
	Planning and designing		24/08/2017 – 25/07/2017
To identify the relationship between the activities taking place within the spaces and how it is experienced	Activities needed by community <ul style="list-style-type: none"> Necessary activities Optional activities Social activities 	<ul style="list-style-type: none"> Interviews (semi-structured and focus group) Participant Observation 	26/08/2017 – 30/08/2017

Source: Researcher (2017)

3.5 Data analysis and interpretation

According to Silverman, and Manson (2003), data analysis is the process whereby statistical and logical techniques are systematically applied to describe and illustrate, condense and

review, and assess in order to scrutinize for mistakes before entering the data into the computer. Data was coded to attain a limited set of elements for a variable composition (Silverman and Manson, 2003). The coding process allows for a number of responses to be made by respondents and also for groups identified and numbers assigned to these groups to facilitate statistical interpretation of data. Other forms of data were not coded but used descriptively only, such as perceptions of Duncan Village public space users towards different types of public spaces.

Explorative researchers try to obtain their information through direct dealings with the phenomenon that is being studied. One of the crucial factors of data analysis in qualitative case study is the search for meaning through direct interpretation of what is explored and observed by themselves as well as what is experienced and reported by the subjects (Silverman and Manson, 2003).

According to Bogdan and Biklen (2003:67), qualitative data analysis is defined as “*working with the data, organising them, breaking them into manageable units, coding them, synthesizing them, and searching for patterns*”. Silverman and Manson (2003) indicate that the aim of qualitative data analysis is to determine patterns, concepts, themes and meanings. Yin (2014) identified the great need for searching the data for “patterns” that can explain or identify causal links in the data base. In terms of the study, the researcher concentrated on the entire information gathered first and then tried to separate it and re-build the data which had been taken apart. Categorisation plays a vital role in assisting the researcher to come up with the comparisons and contrasts between patterns, to reveal patterns and complex threads in the data and make sense of them (Yin 2014).

Creswell (2014:7) holds that the process of data analysis starts with the categorisation and organization of data in order to search for patterns, critical themes and meanings that come out of the data collected. He further indicates that a process known as “open coding” is commonly used where a researcher recognizes and names the conceptual categories into which the phenomena explored and observed can be classified. The main aim is to generate explorative, descriptive, multi-dimensional categories that play a significant role in offering a preliminary framework that will be used for analysis. These identified categories are regarded as vitally important since qualitative researchers are likely to make use of inductive analysis.

The data was also analyzed using the inductive approach. According to Thomas (2011:22) the inductive approach to data analysis is guided by precise objectives. The inductive approach is described as a process whereby the researcher primarily makes use of comprehensive raw data to develop concepts and themes (Creswell, 2014:12) and this approach plays a significant role in allowing a researcher to start with a study area and then develop a theory from the raw data (Creswell 2014:34). Yin (2014:19) adds that the inductive approach contributes immensely in allowing for research discoveries to materialize from significant frequent themes in the raw data.

3.6 Ethical consideration

Since it is a qualitative research, the researcher needs to interact with the respondents in order to gather useful data pertaining to the perceptions and experiences of the residents towards different types of public spaces in Duncan Village and also their preferences in terms of different types of public spaces to be developed. According to Silverman (2000:45), researchers need to remember that when they are busy conducting their research, they are invading or entering the private spaces of their participants. As expected, this plays a major role in raising ethical issues that ought to be considered and addressed during and after the period of the research. According to Creswell (2011:16) the researcher has an obligation to respect the rights, needs, values and desires of the informants. Miles and Huberman (2011:19) list a number of issues that need to be considered by researchers when analyzing data. They advise the researchers to be aware of these issues before, during, and after undertaking research. These issues are as follows:

- Informed consent (Does the researcher provides the participants with full knowledge of what is being researched?)
- Harm and risk (Does the study play a role in hurting participants?)
- Honesty and trust (Do participants trust the researcher while presenting his/her data?)
- Privacy, confidentiality, and anonymity (Does the study interfere too much into participants' personal lives?)
- Intervention and advocacy (Are there any strategies that can be implemented if participants show harmful or illegal behaviour?)

Cultural sensitivity is also a concern related to ethical issues. Silverman (2000:27) advises that the relationship between the researcher and the subject during an interview needs to be taken into account in terms of their values and cultural affiliations. As a result, suitable procedures must be adhered to with strict ethical guidelines in order to support respondents' privacy, confidentiality, dignity, rights and anonymity.

The section below expresses how ethical issues within a research have been addressed.

(i) Informed consent

The researcher made sure that the participants or respondents were adequately informed about the purpose, nature, data collection methods, and amount of the research before the beginning. Additionally, the researcher explained to the participants their duties or roles in the research. This was seen as very important since the approach was different from traditional face-to-face approaches. In conducting this study, participants were voluntarily involved and a consent form was signed by all participants prior to the interviews commencing.

(ii) Harm and risk

With regard to the study, the researcher ensured that research participants were not placed in situations where they might be harmed.

(iii) Honesty and trust

Ensuring that the researcher and participants adhere to ethical guidelines can play a significant role in upholding standards that ensure the reliability of the data.

(iv) Privacy, confidentiality, and anonymity

The researcher guaranteed that the confidentiality and anonymity of the respondents were maintained through the exclusion of any discovered characteristics prior to widespread distribution of the data collected. The researcher revealed that the respondents' names and identities are not going to be used for purposes beyond scope of the research.

(v) Voluntary participation

The researcher told the participants that research was undertaken for academic purposes only and participation in this research was completely voluntary.

3.7 Research limitations

This research is focused on the perceptions and experiences of Duncan Village residents towards different types of public spaces in which residents singled out their preferences with regard to different types of public spaces and activities that could be provided so that their needs would be met. It is indicated that the results of this research will be established on this specific case study (Duncan Village Township) and based on the time period in which data is collected. The conclusions drawn from this research can therefore not be generalised to other townships in South Africa.

Time was identified as another research limitation. In order to obtain meaningful results in a situation where the researcher is employed full time, more time was required. There was also the unavailability of several participants for interviews due to their employment commitments. In such cases, the researcher interacted with the respondents through phone communications. This prevented possibility of conducting face-to-face interviews.

3.8 Conclusion

This chapter described the processes and methods used in order to obtain information on the perceptions, preferences and experiences of Duncan Village residents towards different types of public spaces in Duncan Village. The research approach and research design were discussed and the motivations were given as to why the qualitative research method was the most appropriate technique to be employed in the study. The research followed an explorative and descriptive approach as the researcher intended to discover trends, thoughts, opinions and experiences of key informants towards different types of public spaces in Duncan Village and those that the local residents preferred to be provided. A single case study was employed by the study and its advantages were articulated.

The data collection methods used included document review, graphic and other visual approaches (cognitive maps), participant observation and interviews (both semi-structured and focus group interviews) were discussed in detail. A purposive sampling method was employed in order to select the participants who could be included in the sampling frame. This method was seen as the most appropriate since the study needed the insight of ordinary community members in the provision, management, maintenance, upgrading, planning and designing of the public spaces that play a significant role in meeting the needs that provide for a vivid public life. The data analysis method employed in this study included both an inductive approach and the

data coding processes which were also explained in this chapter. The ethical considerations which were used during the study were explained in this chapter.

Chapter 4 which follows provides a brief contextual background of the study area. It presents an overview of the study area and broadly considers the physical, environmental, socio-economic and the built environment characteristics of the area. It is also provides contextual findings contributing to the understanding and interpretations of the main findings relating directly to the objectives.

4 CHAPTER FOUR: CONTEXTUAL ANALYSIS OF THE STUDY AREA

4.1 Introduction

This chapter deals with a contextual background of the Duncan Village Township. It further provides a brief overview of the Duncan Village's historical background, spatial context, socio-economic analysis (demographics, income, age, and gender), built environment assessment (infrastructure such as water supply, sanitation, and roads), public spaces, land issues (land availability and ownership) and dwelling types. The main purpose of discussing the contextual background in this study is to make readers familiar with the study area and also to provide the link to perceptions, experiences and preferences of the space users. It is also partial findings but of the context which contributes to the understanding and interpretations of the main findings relating directly to the objectives.

4.2 The historical background of Duncan Village

Due to the settlement's unique and sensitive history, it is important to understand the historical background of Duncan Village as this history could play a significant role in choosing some of the spaces and also to understand the experiences of the users towards the public spaces. Luckily, there are a number of academic experts who played a significant role in contributing information regarding the history of Duncan Village in the last few years. In the East London area, the Fort Hare Institute of Social and Economic Research (FHISER) has produced much literature specifically dealing with the historical and social background of the Duncan Village informal settlement. The knowledge and expertise of Professor Gary Minkley of the Fort Hare Institute of Social and Economic Research (FHISER) has contributed useful information that plays a fundamental role in providing an accurate historical perspective of Duncan Village.

Duncan Village has a rich history of resistance struggles against segregation and racially based development. FHISER (2004) indicates that during the 1890s, the erstwhile East London Municipality combined all African locations around the city into the so-called East and West Bank locations. Macozoma (2002:56) is of the view that "Duncan Village has a long and active history of political resistance to apartheid policies of the recent past. It was one of the areas that were earmarked for forced removals by the apartheid regime but it made a significant mark in South African history when it successfully resisted the forced removal of the whole community to the neighbouring Mdantsane, about 25 km away from East London. Duncan Village community also refused to be governed by the discredited Black Local Authority that was imposed on them.

Minkey (2004) notes that in Duncan Village, African residents' forced removals grew in intensity between the 1960's and 1970's and disturbed the government's attempt to relocate residents to Mdantsane. Therefore, the piecemeal process of removals in Duncan Village and the fierce resistance to these removals, other portions of East Bank (Duncan Village) were removed and converted to other racial residential areas and certain areas remained almost untouched by Apartheid removals (FHISER, 2004). For example, African residents living around the Duncan Village post office and the Bantu public square were successfully relocated and the area was redeveloped into an Indian residential area known as Braelyn. On the other hand, because of insufficient housing in Mdantsane and resistance to forced removals, the apartheid government was unsuccessful in completely removing African residents from the areas of Duncan Village proper and C-section and currently people are still living in the old transit housing to this day (Minkey, 2004).

According to FHISER (2004), in East London apartheid reforms caused the creation of the Gompo Community Council (GCC) in Duncan Village in the early 1980's. This council was formed in order to influence the government's attempt to establish an African town council that could restore local government to the community members of Duncan Village. On the other hand, many Africans identified this council as a puppet organization of the apartheid government and were against its authority because the removals were seen as continuing to affect the area (FHISER, 2004). For example, although the GCC was viewed as the council that represented African interest municipal rental rates continued to increase to unaffordable levels in the 1980's (Duncan Village LSDF, 2008). This indicated that the government kept increasing the rents but was not willing to uplift or improve the state of the municipal housing (FHISER, 2004). Raising rental rates was one of the strategies used by the government to try and force African people out of East London. The government knew exactly that Africans would be failing to pay their rental rates and would be evicted from their homes (FHISER, 2004).

Therefore, the leaders of local resistance, together with local residents formed the Duncan Village Residential Association (DVRA) in the 1980's in resistance to the puppet leadership of the GCC. In order to oppose the leadership of Gompo Community Council, the DVRA urged the community members to boycott the massive rental rates that were implemented by the government. That was seen as the best way to bankrupt the GCC and oppose the authority of the apartheid government. FHISER (2004) indicates that the boycott was viewed as an effective way to pressurize the government to adopt reforms. In 1984, the DVRA won a great victory with the announcement that the apartheid policies of forced removals to the Mdantsane Township would be cancelled in Duncan Village.

The victory was regarded as a boost for strengthening the DVRA's authority and leadership. The resistance to the apartheid government leadership increased and the community members and resistance leaders burnt the GCC's rental offices and mass rioting took place in the streets. The Gompo Community Council was declared bankrupt and its authority and leadership as a decision-making body were seen as irrelevant. According to FHISER (2004), the DVRA in 1984 was firmly in control of Duncan Village and was able, not only to mobilize resistance to the state, but also to contain the interventions of apartheid planners and GCC officials in the location.

FHISER (2004) further indicates that as the GCC became more irrelevant and the DVRA started to manage the planning, designing and development initiatives in the Duncan Village Township. In order to further resist and abolish the apartheid government's spatial planning policies, the DVRA identified an area where any African person could construct a shack in Duncan Village. During the 1980's the DVRA had supported the rights of new African arrivals to construct their shacks without fear in Duncan Village. FHISER (2004) and Banks (1996) indicate that in the 1980's the DVRA showed their support for the right of Africans who wanted to build shacks in all public spaces in Duncan Village. In 1985 the DVRA started to require those who were living in homes to allow new arrivals to build shacks in the yards of municipal houses.

Due to the unique location of Duncan Village, which is situated approximately 5km from the economic opportunities of the East London Central Business District (CBD) (refer to plan 4.1 and 4.2) and also to massive resistance against apartheid policies of forced removals, a large number of rural migrants flocked to Duncan Village from the Ciskei and Transkei homelands to build their shacks in the area. FHISER (2004) and Banks (1996) stress that any appearance of planning, designing and orderliness was lost in the densification of Duncan Village in the late 1980's. Shacks occupied the public spaces, playgrounds and the backyards of municipal houses. FHISER (2004) and Banks (1996) further indicate that the division between public and private space and urban and rural space was unclear as single household sites were converted into multiple household sites and great strain was placed on public facilities such as public spaces, toilets and roads. Due to the rapid densification of the area promoted by the DVRA policy of open squatting, the population increased at a great pace from the late 1980's onwards. In 1984 the population of Duncan Village was estimated at 17,000, by 1986, it stood at 50,000 and in 1990, the population was estimated to be 80,000 (FHISER, 2004). Today, Duncan Village is one of the densest human settlements in the Buffalo City Metropolitan Municipality (BCMM).

Another wave of shack densification took place in the early 1990's in which the apartheid government's policies started to evaporate and this further crowded the informal settlements. During that time households of 8-10 people who lived in municipal houses started to move out of their homes into backyard and freestanding shacks (FHISER, 2004). Therefore, the formal housing in Duncan Village de-densified during that period, but there was a huge increase in shack density in Duncan Village as individuals who used to live in formal housing moved into informal housing (Anthony, 2004).

According to FHISER (2004:67), the rapidly growing shack areas in Duncan Village in the 1980's and 1990's forced the White residents of East London *"to demand that the city authorities stop the unacceptable, indiscriminate shack and hovel erection that threatened their families and the city"*. Because of these complaints, Gompo Community Council (GCC) officials came up with plans for the redevelopment and resettlement of the area as an attempt to control Duncan Village. The Gompo Community Council instructed that at least 5,000 squatters should leave the area so that the redevelopment plans could be implemented (FHISER, 2004). The residents of Duncan Village did not heed these demands and in January 1990, in one of the most violent incidents in the history of East London, 12 000 residents marched on downtown East London in protest against the Gompo Community Council (GCC) and their redevelopment plans (FHISER, 2004). The protests ended in violent clashes with police and 28 deaths were recorded and served as a final statement that the residents of Duncan Village would not allow an apartheid government or its puppet Gompo Community Council to interfere in their daily lives anymore. FHISER (2004:34) and Banks (1996:21) indicate that after violent clashes, any efforts to redevelop Duncan Village were abandoned and *"...the resolve of the people of Duncan Village not to be fooled by the promises of apartheid development..."* remained so strong in the area *"...that it was only in June 2002, almost a decade after the ANC had come to power, that the first low-cost, formal houses were erected there"*.

4.3 Geographical context

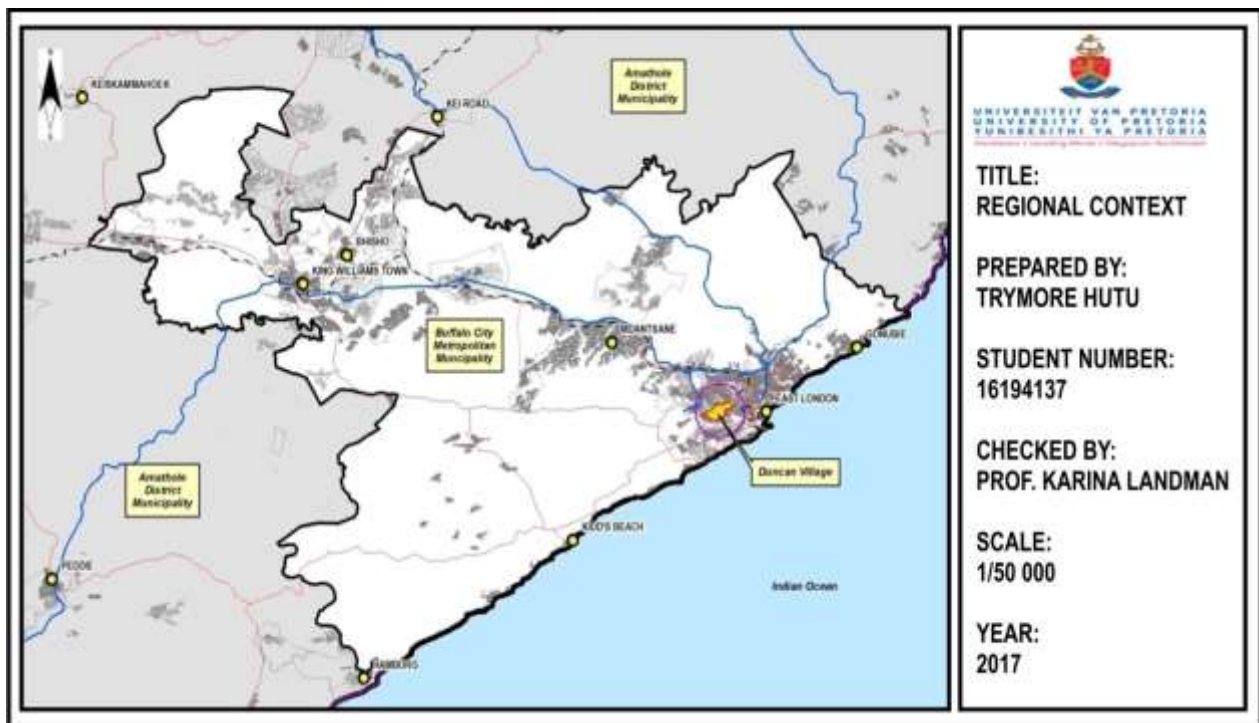
4.3.1 Regional context

Duncan Village (Plan 4:1) is situated close to the East London CBD within the Buffalo City Metropolitan Municipality, in the province of the Eastern Cape. East London is the regional node that caters for both urban residents and rural residents from the former homelands of Ciskei and Transkei. East London has a small industrial harbour located at the mouth of the Buffalo River and a railway line that connects it to Johannesburg via King William's Town and

Bloemfontein. Both the industrial harbour and the railway line played a significant role in the development of the city (BCMM IDP 2015/16). The economic development of East London is linked to industry with small trade and tourism providing smaller economic input. The city is laid out as a series of suburbs, spread out over the undulating hilly landscape surrounding the CBD which is situated adjacent to the Indian Ocean and the mouth of the Buffalo River.

The location of Duncan Village today closer to the East London CBD is the result of residents of this black township successfully resisting attempts of forced removal to Mdantsane, a huge township specially built for blacks about 25 km distance from the East London CBD. As mentioned above, since the abolition of apartheid the influx of people from the rural areas has grown enormously resulting in overcrowding in Duncan Village and the appearance of numerous squatter camps in and around the city. The greatest problems that East London is facing at the moment are a limited number of public spaces, unemployment and a lack of affordable housing for lower income groups.

Plan 4-1: Locality in regional context



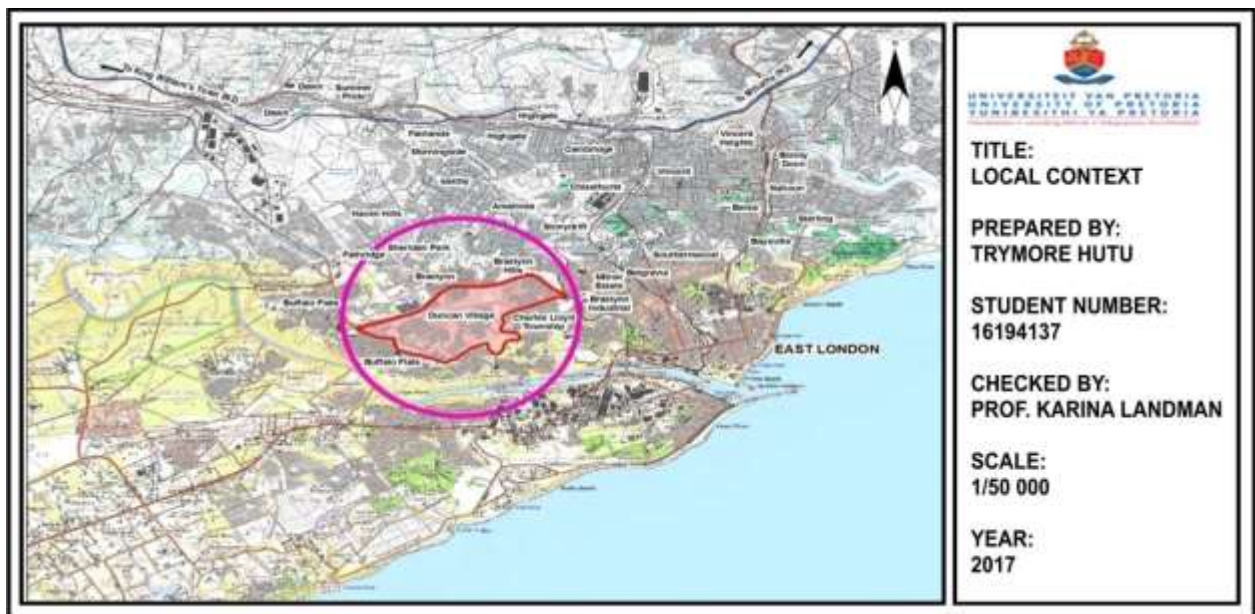
4.4 Local context

Duncan Village is a low-income residential area and is mostly an informal settlement and represents surrounding neighbourhoods that encompass a variety of living environments from

the typical low-income suburb of Gompo Town with its formalised single residential mode of development to the densely populated, crowded and poor living conditions of the informal settlements known as C-Section and Duncan Village Proper. It is located approximately 5km from the East London CBD. It has an estimated total area of 300 hectares. In some parts, population densities have been found to be in excess of 2500 people per hectare.

Duncan Village (Plan 4:2) is bordered by a Coloured residential area, an Indian residential area, a White residential area, a light industrial zone and a commercial node. Being very close to the city centre, the residents of Duncan Village are able to walk to work. In addition, it is strategically located to facilitate the development corridor which runs inland linking Mdantsane and Scenery Park with the East London CBD and the industrial area on the west bank. Plan 4:2 indicates the location of Duncan Village within BCMM

Plan 4-2: Local context

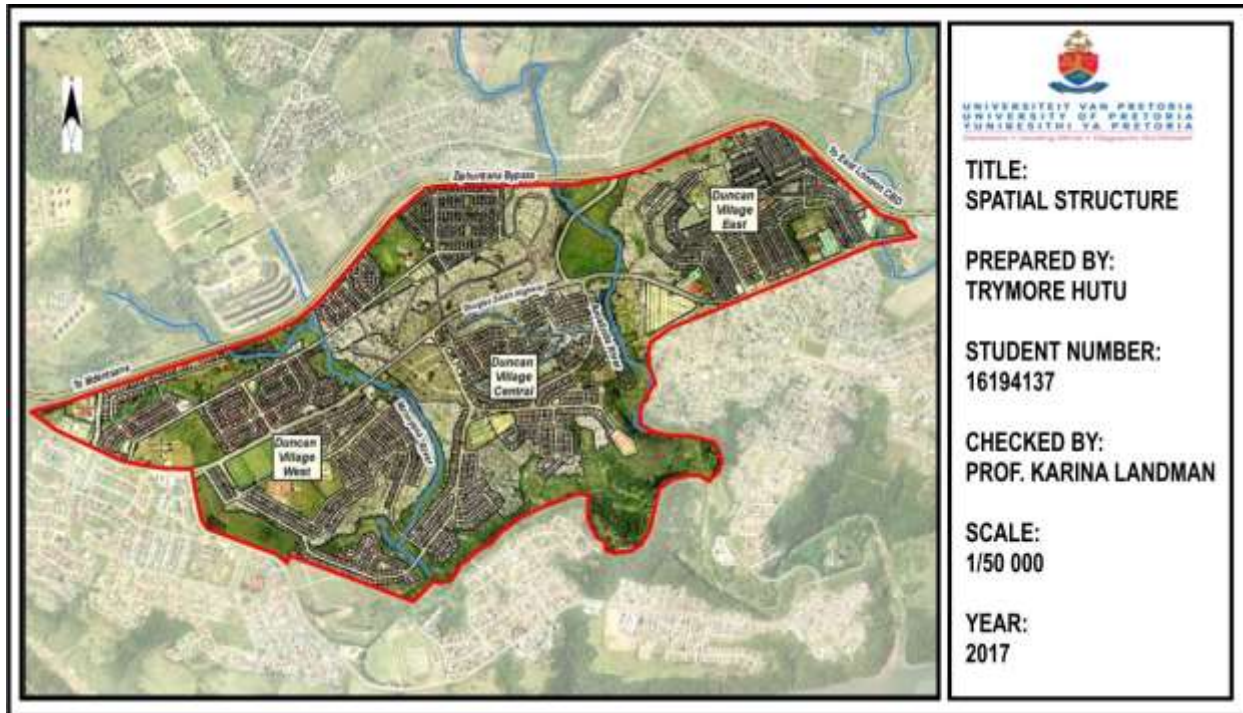


4.5 Spatial structure and description

The spatial structure (Plan 4:3) of Duncan Village is influenced by the river valleys of Amalinda and Mzonyana. Because of these river valleys, Duncan Village is divided into three separate neighbourhoods which are Duncan Village east, west and central. Three heights which are formed by the river banks and their steep valleys also promoted the formation of these three neighbourhoods. Douglas Smith Highway, the main road that runs centrally through the study area, also plays a major role in further dividing the Duncan Village.

The construction of housing structures within the three neighbourhoods influenced the unique characteristic of each neighbourhood. Both formal and informal settlements are present in the study area but there is a large variation in density and design and also in way public life is conducted.

Plan 4-3: Spatial structure



4.5.1 General character of the neighbourhoods

From an overall viewpoint, three neighbourhoods which are found in Duncan Village Township are influenced by the Umzinyana and Amalinda Rivers. The neighbourhoods are further split by the Douglas Smith Highway, the main road within Duncan Village which runs through the middle of the area and across the two valleys. The three neighbourhoods are characterized by different qualities, which are caused by the manner in which the housing structures have been constructed and are viewed as being suitable for more and less concentrated mixed land use development zones along the Douglas Smith Highway.

The three neighbourhoods are described below.

4.5.1.1 Duncan Village East

Duncan Village East (Plan 4:4) is made up of Duncan Village Proper and B-hostels and consists of both formal and informal housing dwellings with continuous high density within the entire neighbourhood. There is an old cemetery which is viewed as the largest open space within the neighbourhood situated on the Umzonyana River bank north of the Douglas Smith Highway. With the exception of this old cemetery and a playground opposite, there is only a small area used by local residents to cultivate small scale crops for private use. There are no open public spaces within Duncan Village East. The informal settlements occupy most parts of the riverbeds.

Within Duncan Village East, Douglas Smith Highway, which is a major thoroughfare, is viewed as a public space that provides for vivid public life and also promotes a sense of community among the local residents. The majority of public and commercial facilities are located along Douglas Smith Highway.

Street vendors are visible and active along the Douglas Smith Highway, particularly on the western part of Duncan Village East, from the intersection of Umzonyana Road and Douglas Smith Highway to the Community Hall and Art Centre (Figure 4:2). There is a church (figure 4:1) located on the highest point of Duncan Proper and an informal settlement area which is situated north of the Douglas Smith Highway. It acts as symbolic landmark not only for the neighbourhood but for Duncan Village as a whole.

Duncan Village East is characterised by the following:

- Informal building structures
- Formal building structures
- Strong commercial activities (both formal and informal business activities) along Douglas Smit Highway
- Strong public life in streets such as Douglas Smith Highway
- High density informal residential development



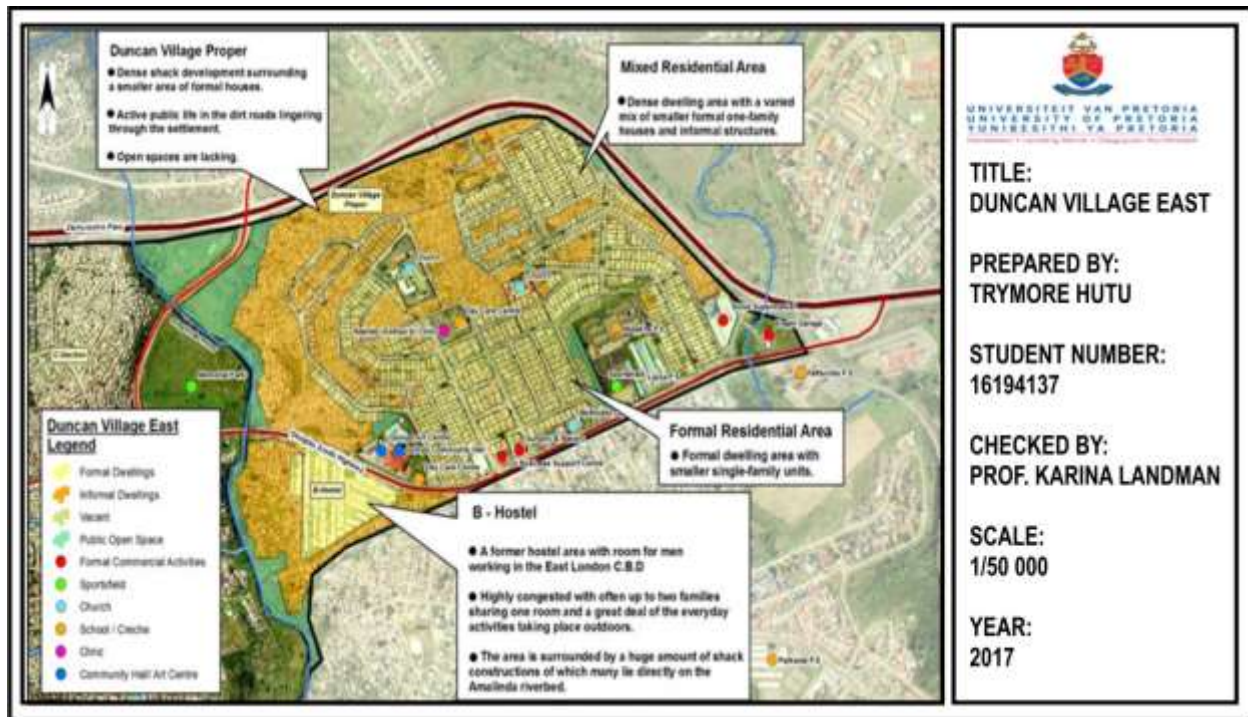
Figure 4-1: Church surrounded with informal housing



Figure 4-2: Community hall

Source: Author (2017)

Plan 4-4: Duncan Village East



4.5.1.2 Duncan Village Central

The entire Duncan Village Central (Plan 4:5) is located at a distinctive height between the Mzonyana and Amalinda River valleys. The valleys created the borders of the neighbourhood, either too steep or more gentle slope, which formed the boundaries towards the nearby neighbourhoods. The Douglas Smith Highway connects Duncan Village Central to other neighbourhoods and surrounding areas such as Braelyn and Buffalo Flats. Duncan Village Central consists of Toilet City, C-Section, D-Hostel, and the Jabavu node.

Duncan Village Central is identified as the heart of Duncan Village, characterized by high densities and the intense movement of people. Duncan Village Central consists of both informal and formal human settlements. The densities of the informal settlement areas are very high while they differ within the formal areas, from low density single family housing to densely built one floor blocks of flats. The river valleys within the neighbourhood are occupied by informal housing structures and in terms of a planning perspective, occupying riverbanks is regarded as dangerous due to the fact that the areas are always at the risk of floods.

Open spaces within the area are the former burial ground in the south, which is mainly utilized for family agriculture and some large spaces that are found within the school grounds, which are not accessible for all residents. The researcher observed that the neighbourhood is characterised by a lack of open spaces. As a result, most public life occurs along Douglas Smith Highway, at Jabavu node, the former primary centre in Duncan Village, and in other streets within the neighbourhood. Among these areas, Douglas Smith Highway is singled out as the public space that provides a very vibrant street life with most housing units and commercial activities facing the street thus forming an intimate streetscape. The Jabavu Node consists of existing formal public and commercial facilities and also a number of street vendors.

The following are characteristics which are found in Duncan Village Central:

- Barricades or barriers that were created by the Umzonyana and Amalinda River valleys
- Well-constructed formal houses built through the Reconstruction and Development Programme (RDP)
- Informal houses which occupy a large area of Duncan Village Central
- Streets providing vivid public life
- High and low density areas for both formal and informal housing structures.



Figure 4-3: DV Central Informal housing



Figure 4-5: Formal housing

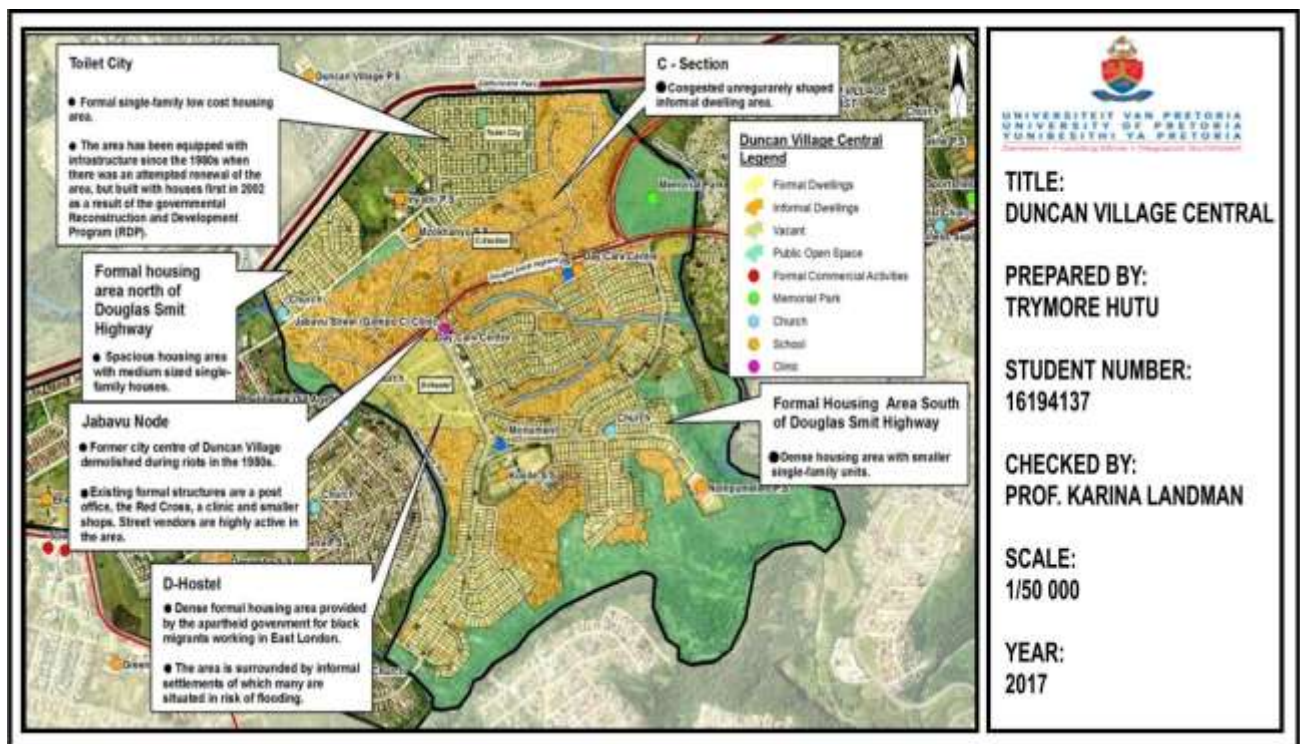
Figure 4-4: DV Central street



Figure 4-6: Backyard shacks in DV Central

Source: Author, 2017

Plan 4-5: Duncan Village Central



4.5.1.3 Duncan Village West

Duncan Village West (Plan 4:6) is characterised by greater number of formal dwellings. In comparison to other neighbourhoods, Duncan Village West is less dense as it contains large pieces of undeveloped land. This makes it attractive for the provision of different types of public spaces that can play a vital role in meeting local residents' needs.

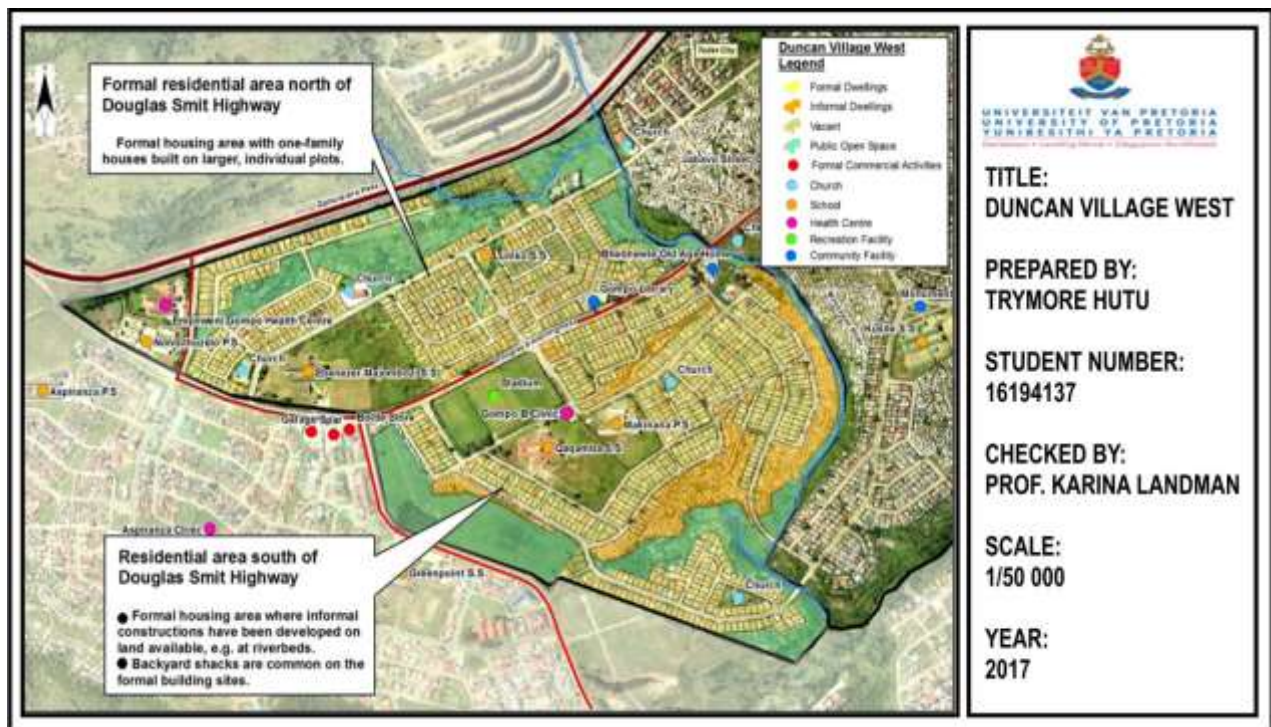
Street life in Duncan Village West is slower and less frenetic compared to other parts of Duncan Village. This is because residents in the formal housing areas spend their leisure time in the private sphere such as inside their homes and gardens. The majority of dwellings do not face the Douglas Smith Highway, which contributes to less interaction between the residents along the streets. There is a cemetery, a school ground and a sports field, which are all fenced.

Fewer street vendors are visible compared to other two neighbourhoods (Duncan Village Central and East) and they are mainly found along the Douglas Smith Highway next to the Buffalo Flats Shopping Centre.

The characteristics of Duncan Village West are as follows:

- Greater portions of open spaces for provision of required public spaces
- Well defined and structured street network
- Large numbers of formal housing structures
- Both river valleys and steep slopes caused barriers which separate this neighbourhood from others (Duncan Village Central and East).

Plan 4-6: Duncan Village West



4.6 Public spaces

As indicated in Chapter One, there are no formally planned or designed public places within Duncan Village. Streets were identified as the major public spaces that provide for vivid public life and influence a sense of community among the residents of Duncan Village.

There are few green spaces (Plan 4:7 and figure 4:7 to 4:10) for recreation activities within Duncan Village. The ones that exist are a cemetery in Duncan Village West and a former burial ground in Duncan Village Central. The Buffalo City Metropolitan Municipality proposed that the former burial ground be developed into a memorial park.

As indicated above, Duncan Village West possesses larger pockets of open land but few people were seen using these spaces. There are also huge green spaces along the rivers, but the terrain with bushy vegetation and steep slopes makes them inaccessible to local residents. Few open spaces occur between the informal settlements and the river valleys are used for agriculture by people who live nearby.



Figure 4-7: Green space



Figure 4-8: Green space



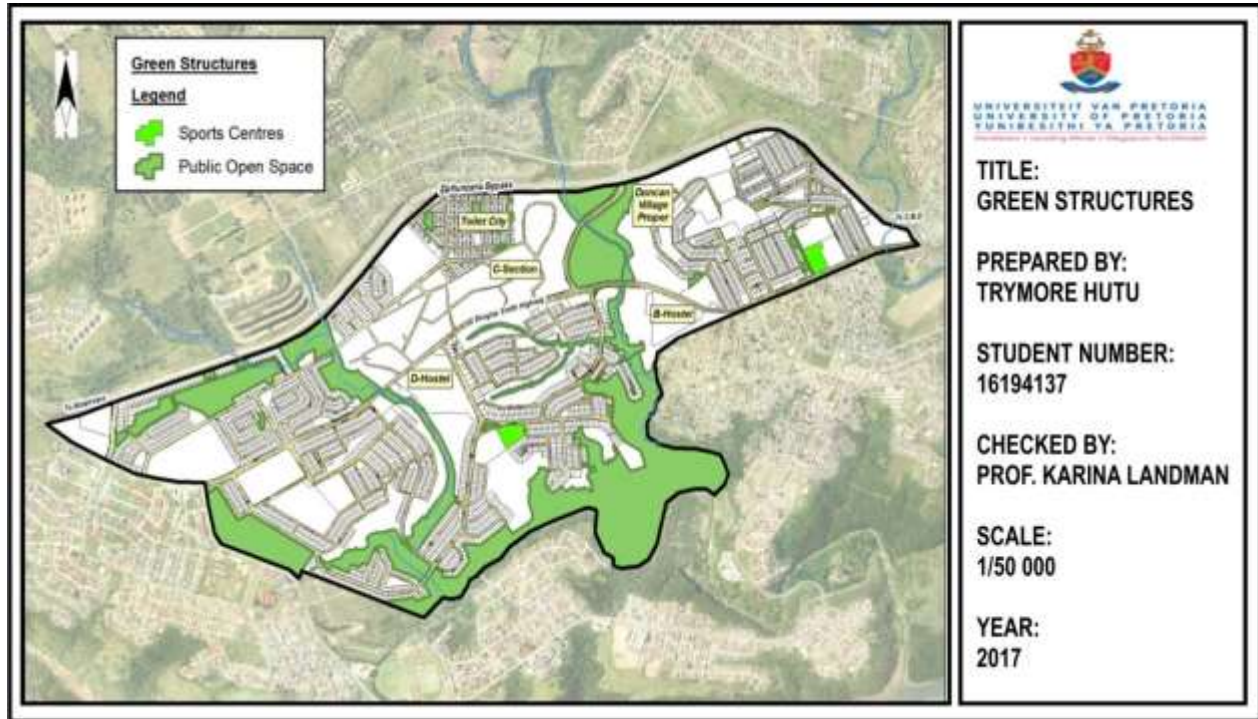
Figure 4-9: Open space with containers



Figure 4-10: Open space

Source: Author (2017)

Plan 4-7: Green structure



4.6.1 Douglas Smith Highway and Jabavu Street

As indicated in Chapter Two, streets are classified as public spaces. The streets in Duncan Village are used as car wash spots, children's playgrounds, sport grounds, spaces for markets, workshops, for public celebrations and other communal activities. Duncan Village has active streets called the Douglas Smith Highway and Jabavu Street. The Douglas Smith Highway (figure 4:11) is the main artery which connects Duncan Village to the city of East London and at the same time it is the backbone which ties together the three neighbourhoods of Duncan Village. While on one hand the Douglas Smith Highway is providing a connecting function, on the other hand it separates Duncan Village from Buffalo Flats, Duncan Village Proper and Pefferville.

Jabavu Street connects the Jabavu Node where there are community facilities such as clinic, post office, and retail facilities (both formal and informal). A number of activities occur along this street.

Through its connecting function, the Douglas Smith Highway attracts many activities such as, minibus taxis which drive up and down, stopping to pick or to drop off passengers, hawkers (informal traders) selling fruit, vegetables and meat, hairdressers, informal car repairers, and

shack panel builders. Most of these activities occur spontaneously in an informal way on spot locations where there is some space available. The concept plan for Duncan Village states that the Douglas Smith Highway is not utilized to its full integrative capacity and that a coherent plan for this road as a so called “Activity Spine “ should be developed.

Streets are identified as the main public spaces within Duncan Village. This is where local people come together to socialise and also most business activities (formal and informal trading activities) are located. As indicated in Chapter 2, a number of researchers indicate that streets are one of the types of public spaces which public space users utilize as gathering points or business areas. The previous statement assisted the researcher to compare the findings of this research with the literature in terms of perceptions, preferences and experiences of different public space users towards different types of public spaces that exist and are preferred by Duncan Village residents.



Figure 4-11: Douglas Smit Highway across river



Figure 4-12: Walkway that connects DV and Braelyn

Source: Author (2017)

4.6.2 Sport facilities

There are a number of sites for sports fields. Sports facilities in Duncan Village are within fenced school sites and are only accessible for the scholars during the day and school hours. Sports grounds for sports such as soccer and cricket are all located behind enclosures and are used during the day and for specific club activities. The situation of these facilities does not allow small children, scholars after school and other community members to have access to them.

The facilities in the sport grounds are all in need of further development or repair. The fields need resurfacing, ablutions, and caretakers' cottages. There is no security and fields are often vandalized as soccer posts are stolen whenever new ones are fitted. The community is not taking ownership of the fields.

4.6.2.1 Gompo stadium

The Gompo Stadium (figure 4:13) is the largest sports field in Duncan Village. It is owned by the Buffalo City Metropolitan Municipality (BCMM) and is enclosed by brick walls. Access for local residents is limited since it is always locked. Apart from sporting activities, the Gompo stadium is seen as an area where residents could come together for public events such as music festivals.

Currently the municipality is not maintaining or upgrading it. The toilets are no longer functioning, taps have been vandalized and doors are damaged. The venue is too dirty. Serious maintenance is required for the stadium. The BCMM is not managing it properly. It is indicated in Chapter Two that management is one factor that affects functionality of the public spaces.

Figure 4-13: Gompo stadium



Source: Author (2017)

Figure 4-14: Basket ball ground



Source: Author (2017)

4.6.3 Duncan Village arts and culture centre and community centre

These two facilities serve as civic centres within Duncan Village where public activities are held. Duncan Village is well known for producing world champions for the sport of boxing so the residents use both the community centre (figure 4:15) and the art centre (figure 4:16) for this activity. There are also other activities such as choir performances and competitions and Xhosa cultural activities which take place in these public facilities. They are well managed and maintained by the municipality.



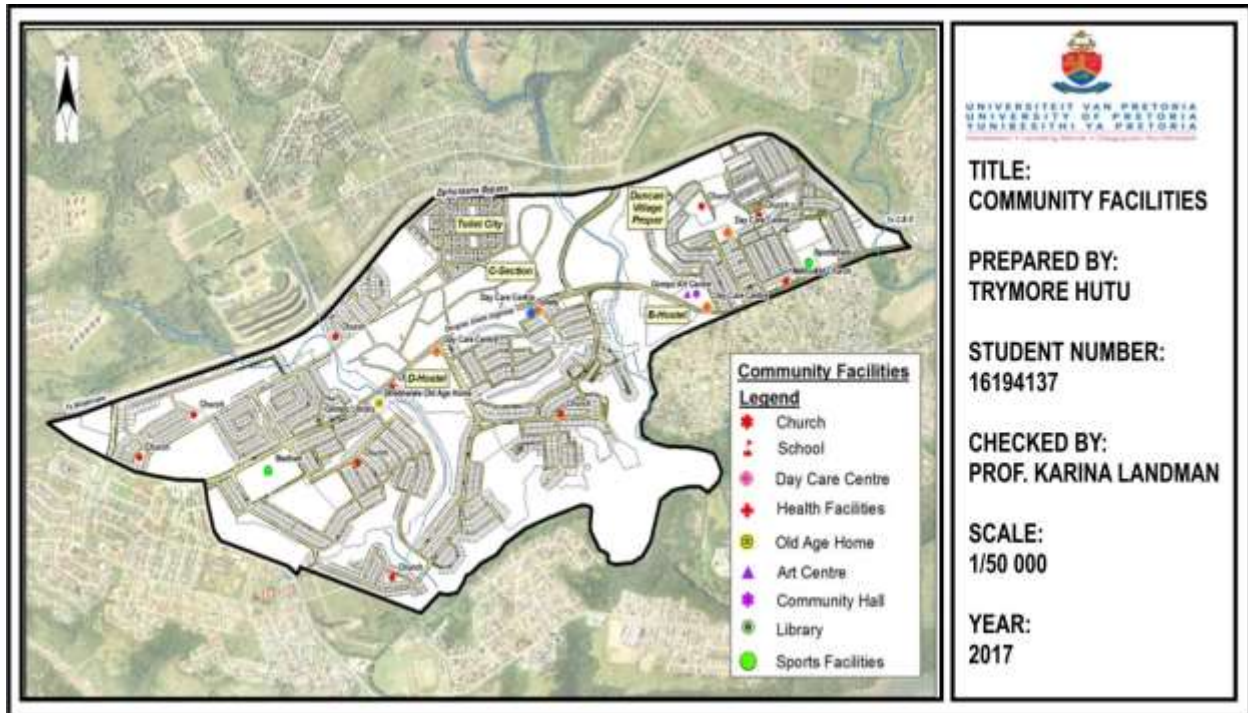
Figure 4-15: DV Community centre



Figure 4-16: DV arts and culture centre

Source: Author (2017)

Plan 4-8: Community Facilities



4.7 Housing structures

The majority of the housing structures within Duncan Village are single freestanding, one storey, single family houses or informal dwellings which are built of temporary materials such as wood, and corrugated steel. Multi-storey buildings within the study area are not common. Duncan Village is comprised of three residential type dwelling, namely, formal dwellings, backyards and shacks.

4.7.1 Formal housing units

Most formal housing units in Duncan Village are either built by local residents themselves or obtained through the Reconstruction and Development Program (RDP), which was initiated by former President Nelson Mandela. Toilet City as a housing area is an example of an RDP housing project in Duncan Village. It is built in line with the "one house – one erf" principle with low density 40 m² single family houses. The RDP houses in Toilet City are built in a conventional grid format providing a very formal impression compared to the entire Duncan Village.

Formal individually built houses (figure 4:19 & 4:20) in the Duncan Village West neighbourhood have larger plots than the RDP houses provided by the government. Duncan Village West, with

formal individually built houses, has a clear hierarchy in street patterns, making it easier to orientate oneself. The buildings within this area are structured in such a way that they form an interesting and varied streetscape. There are big private gardens with vegetation that add to defining the streets.

4.7.2 Informal housing units

Backyard shacks are very common in Duncan Village. Backyard shacks (informal houses) are housing structures constructed by tenants in the yards of formal houses with the permission of the owners of these formal houses. The proliferation of backyard shacks makes Duncan Village Central the densest neighbourhood within Duncan Village. The owners of the formal houses then act as landlords collecting rent from the occupants of the backyard shacks.

In addition, the majority of public land earmarked for public space development is occupied by shack structures (figure 4:17 & 4:18). These areas known as 'shack areas' have informal housing structures built on public land. They are found in most parts of Duncan Village and are very congested. Shortage of land is one of the challenges that Duncan Village is facing right now, therefore, land to build upon is scarce and the presence of shacks is becoming denser. The majority of these informal housing structures are built on very steep slopes or on riverbanks making them unsafe for habitation. Natural disasters such as floods often occur in Duncan Village. The congestion of the informal housing structure also makes them a fire hazard.

These shacks are built using poor materials such as wood, corrugated steel, cardboard and plastic found in the surrounding areas such as the East London CBD or Buffalo Flats. Streets within these areas are regarded as their main public spaces which provide public life and foster a sense of community among the shack dwellers. There are also a number of informal trading activities within these streets. People sell fruits and conduct car wash businesses along these streets.



Figure 4-17: Shakes in Duncan Village Proper



Figure 4-18: Shacks on riverbed, DV Central



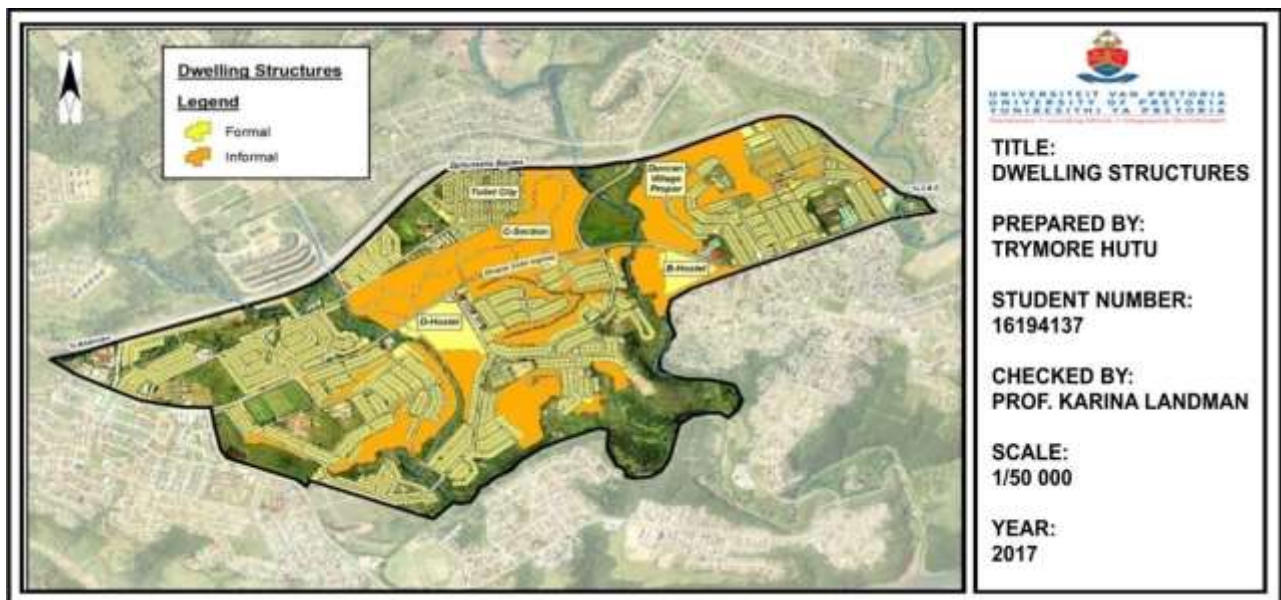
Figure 4-19: Formal dwelling, Duncan Village West



Figure 4-20: Formal dwelling, DV West

Source: Author (2017)

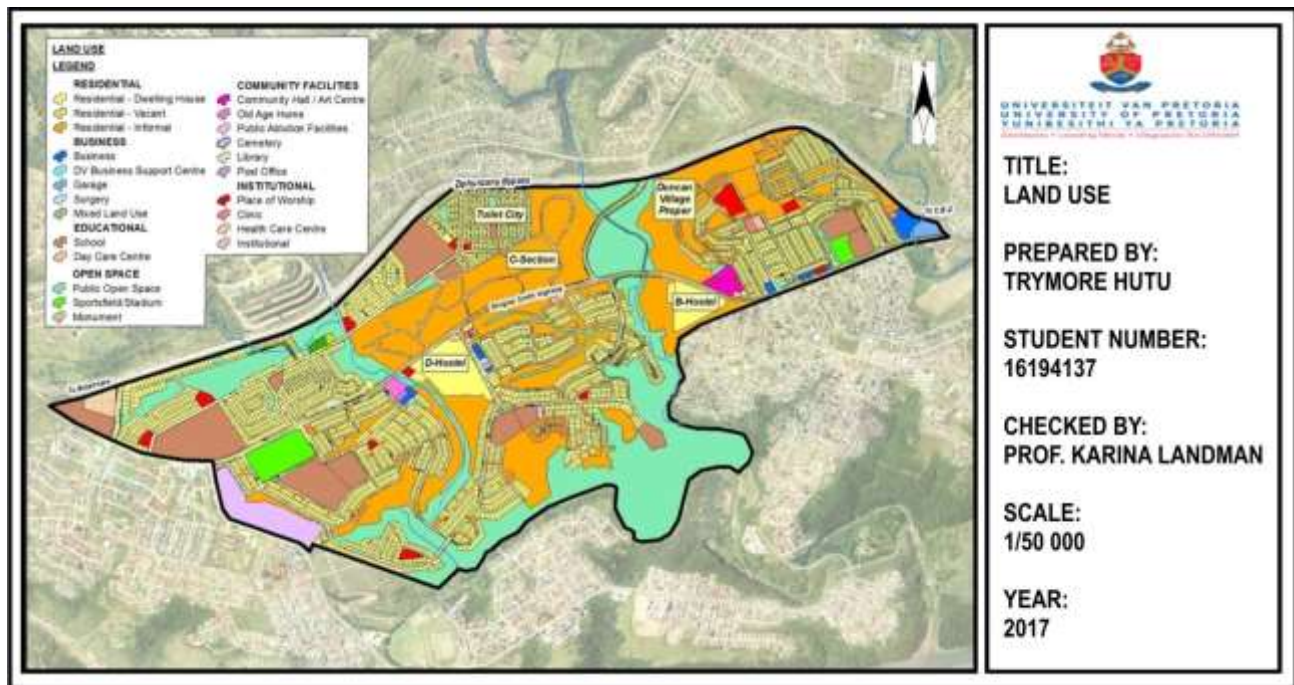
Plan 4-9: Dwelling structure



4.8 Land uses

The major land use zones in Duncan Village Township are residential (both formal and informal settlements), general business (mainly at Jabavu Node), educational, institutional, community facilities such as the post office and library and public open spaces.

Plan 4-10: Land use



4.9 Land issues

In terms of the preferences towards providing and developing different types of public spaces to meet the residents' needs, the researcher looked at land issues such as availability of land suitable for development and land ownership. The Buffalo City Metropolitan Municipality (BCMM) indicates that there are serious challenges towards land availability in Duncan Village. More people from rural areas moved to Duncan Village caused the area to experience land invasions which have crippled further development of the area. The BCMM is failing to stop land invasion activities around the metropolitan municipal area. There are pockets of land which are identified by the Duncan Village LSDF (2008) for development of formal houses and different types of public spaces, but currently the land is occupied by informal housing structures. Land grabs in Duncan Village is a serious challenge that requires harsh policies and legislation in order for it to be reduced. Duncan Village is currently overcrowded and the municipality is in the

process of relocating residents to nearby townships. They are doing this in order to create land which will be used for development.

4.9.1 Land ownership

The Duncan Village LSDF (2008) stressed that all land in Duncan Village is currently in the ownership of BCMM, with the exception of erven 3233 (East London) and 3234 (East London) which are currently under the authority of the Provincial Department of Human Settlements.

4.9.2 Land development areas for public spaces

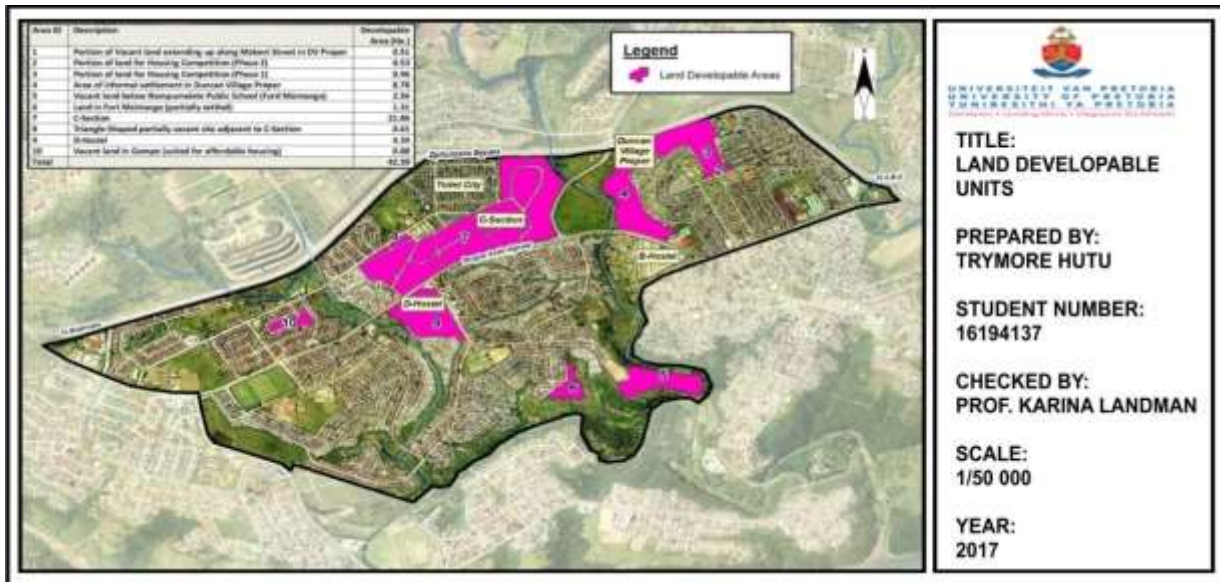
In terms of public space delivery, Duncan Village LSDF (2008) identified suitable parcels of land which may be utilised for development of different types of public spaces in order to meet the needs of public space users. This land can also be used for formal housing development through the Duncan Village Redevelopment Initiative (DVRI) which aims to provide 20 000 dwelling units together with different types of public spaces for residents' use. The land within the borders of Duncan Village cannot support 20 000 dwelling units and public spaces, therefore, the Duncan Village LSDF (2008) has indicated that the BCMM should seek additional land beyond the borders of the Duncan Village to create sustainable human settlement. The following land parcels were identified as suitable for redevelopment or greenfields development within the Duncan Village Township.

Table 4-1: Land development areas

Area ID	Description	Developable Area (Ha)
1	Portion of Vacant land extending up along Mekeni Street in DV Proper	0.51
2	Portion of land for Housing Competition (Phase 2)	0.53
3	Portion of land for Housing Competition (Phase I)	0.96
4	Area of informal settlement in Duncan Village Proper	8.78
5	Vacant land below Nompumelelo Public School (Ford Msimango)	2.56
6	Land in Ford Msimango (partially settled)	1.31
7	C-Section	21.86
8	Triangle-shaped partially vacant site adjacent to C-Section	0.61
9	D-Hostel	4.39
10	Vacant land in Gompo (suited for affordable housing)	0.88
Total		42.39

Source: Duncan Village LSDF (2008)

Plan 4-11: Land developable units



4.10 Socio-economic profile

The socio-economic profile of the local community is not the main focus of the study but the researcher has included it in the study because it plays a significant role in the understanding of the preferences, perceptions and experiences of public space users within the study area. The socio-economic profile plays a significant role in usage of public spaces and provision of different types of public spaces that meet public space user's needs. Some of different types of public space to be provided and developed within Duncan Village are influenced by the socio-economic profile.

4.10.1 Population

The Census (2011) data indicates that there are 33 964 households and a population of about 105 391 people living in affected six (6) wards. This could be important as there are certain standards for the amount of public space needed per number of the population.

In order to open up space for other development initiatives such as public spaces provisions and upgrading within Duncan Village, a number of these households (16000) are being relocated to identified land parcels within the city. The gender distribution indicates that in all wards the female population is greater than the male population.

Population size plays a significant role in determining the different types and sizes of public spaces to be provided in Duncan Village. For example types of parks are provided in terms of population size. This may be determined by municipal plans and policies which regulate development within the jurisdiction of the municipality.

4.10.2 Age

In terms of Population distribution by age, the census (2011) data suggests that the youth between the ages of 15-34 years of age constituted 46.3% of the population. Table 4.22 below shows the total age breakdown of the Duncan Village population.

The census data suggests that some 59% of the population are between the age of 20 to 59, with the highest percentage in this range being the 20-29 years age group (21.9%), followed by the 30-39 years age group (20.1%) and the 40-65+ years aged group (22.0%) (Census 2011). The study area is characterised by having a relatively small number of adults as indicated above.

Table 4-2: Age group

Age group	No	%
0 – 14 years	28 474	27.0
15 -19years	9 372	8.9
20 – 29 years	23 103	21.9
30 – 34 years	16 371	15.5
35 – 39 years	4 854	4.6
40 – 49years	6 000	5.7
50 – 59years	11 910	11.3
61 – 65+years	5 306	5.0
Total	105 390	100.0

Source: SSA: Census (2011)

The breakdown of age groups will assist in the provision of different types of public spaces that may accommodate all age groups within the study area, and determine the activities that should be provided so that all people may visit public spaces. A number of studies indicated that children are the main users of public spaces (Pollock, 2014; CABE Space, 2008 and PPS, 2014).

4.10.3 Gender

In terms of gender distribution, the study area has more females than males. Females account for 52% while males amount to 48%. This implies that when public spaces are planned and designed in Duncan Village, gender issues should be taken seriously before any development.

Pollock (2014:34) is of the view that women are afraid to visit public spaces where there are more males than females. Security measures for women should be considered in the public spaces of Duncan Village. Some men are also affected by the incidents that affect safety and security in public spaces (CABE Space, 2008).

4.10.4 Security concerns in Duncan Village

Due to high levels of poverty, Duncan Village is characterized by high rates of crime. This plays a major role in affecting types of outdoor activities and the social, economic and environmental benefits provided by the public spaces. This information is important for urban designers and town planners to take into consideration in order to come up with strategies that can be implemented to combat crime when public spaces are planned and designed in Duncan Village.

In terms of the functionality of public spaces, crime plays a major role in reducing the uses of public spaces. Although there is a marginal decline in serious crime in the Eastern Cape, crime in Duncan Village remains very high (BCMM SDF, 2014). The table below shows that total contact crime in Duncan Village decreased by 6% over a 5-year period with the notable exception of robbery with aggravating circumstances (+10%) and common assault (+33%) and attempted murder (+10%) which were on the increase between 2011 and 2012.

Regrettably, Duncan Village is viewed as one of the most dangerous neighbourhoods in the city of East London. Some of the crimes occur in the streets, especially, at night (SAPS report, 2012). This has negative impacts on the usage of different types of public spaces that may be provided and the ones that require upgrading. Montero (2001) indicates that many public spaces have physically deteriorated or have been abandoned, when they become havens for vandalism and undesirables. This plays a major role in creating a bad picture of public spaces that is not welcoming to public space users.

Table 4-3: Crime against person (contact crime) in Duncan Village

Crime category	2008	2009	2010	2011	2012	Total
Murder	100	79	71	67	75	392
Sexual Crime	151	166	118	133	119	687
Attempted murder	58	47	46	15	31	197
Assault	854	756	730	663	652	3655
Common assault	209	160	123	106	142	740
Common robbery	164	145	102	79	73	563
Robbery with aggravating circumstances	250	371	222	235	260	1338
Total	1786	1724	1412	1298	1352	7572

Source: South African Police Service (2012)

The reported incidences of burglary in residential premises remains very high in Duncan Village over the period compared to other crimes in the same category of crimes. This is caused by lack of visible policing as result of density of the area and it can also relate to the nature of the roads, housing types and overcrowding.

4.10.5 Income

In terms of planning, the legacy of apartheid's spatial planning policies is still commonly shown in South Africa's cities and towns. It is indicated that the 'public space deficit' is mainly in peripheral lower income neighbourhoods and informal settlements such as parts of Duncan Village. In addition, these areas are still segregated along racial and class lines.

According to the Census 2011 data, high levels of poverty account for 43% of the Duncan Village population reporting no dependable monthly income. About 45% of the economically active population earns less than R1600 per month and only 4% earn an income of R3200 or more. These figures demonstrate that even for those in formal employment, their income levels are so low that the majority of them fall within the indigent bracket.

With regard to Duncan Village, poverty is a major issue. This also plays a role in limiting the number of people in public spaces. The sense of community among residents of Duncan Village is also limited due to the low level of household income. Poverty plays a major role in public space use that is carried into racial inequities. Poverty rates for black people in Duncan Village are nearly twice as high as those for Coloured people in Braelyn. Thus the use of public space is measured by both in terms of race and income (Gradin, 2008). Pollock (2014)'s research has noted the importance of public space access and use for people who are on the lower end of

the socio-economic scale and have remarked that it is important to integrate public spaces across race, gender and ethnic groups.

The poverty level is seen to affect the use of public spaces. Pollock (2014) indicates that the working poor have less leisure time at their disposal. He stresses the outcome of this effect: people who are living in poverty have less time to spend on leisure activities which is offered by public spaces and, therefore, have less capacity to develop social capital bonds. Furthermore, low-income community members experience higher levels of crime in their neighbourhoods than their richer peers (Kamphuis et al. 2009). This is evident in the study area which is characterised by high rate of crime due to high unemployment rate.

High levels of poverty within Duncan Village may be associated with crime, especially, for public space users. Public spaces which are going to be created and existing ones must be able to promote local economic development. Along Douglas Smith Highway there are a number of both formal and informal commercial activities.

4.10.6 Race

Black people (Xhosa-speaking, 97.6%) dominate in Duncan Village, followed by Coloured people and Indian people (Census 2011). For the purpose of the research, Pollock (2014) indicates that the issue of race on public space use is well-documented in terms of the benefits which users enjoy after visiting public spaces and also the different types of public spaces that are preferred by local residents. A number of black people face socio-economic barriers that limit when and how they visit and use public spaces. Although public spaces are distributed in an equitable manner that encourages the community to mingle cross-racial encounters and perceived hostility may play a role in motivating the racialisation of public space e.g. black people often feel that they are unwanted or uncomfortable in public spaces (Pollock, 2014). CABE Space (2008) indicates that histories of racism and cultural/ethno-racial ideologies play a fundamental role in shaping public space planning, design and architecture. In areas described as multicultural areas, the heritage of a public space may contain implicit meanings which may play a role in isolating or excluding community members (Low et al. 2005). Because of their cultural background, some black people choose areas that have lower levels of law enforcement (Pollock, 2014).

The City of East London with its history of segregation requires public spaces that meet the needs of different backgrounds of society (BCMM IDP 2016). Within the study area, there is a lack of public spaces where community members of different classes, races, cultures and traditions can come together.

When planning and designing public spaces, planners and designers should be planning for diversity. By doing this they will be promoting integration and social mixing of all races in public spaces.

4.11 Environmental analysis

Environmental aspects such as climate and geology play a vital role in the planning and designing of public spaces in an area.

4.11.1 Climate

Due to migration of people from other parts of Eastern Cape province to East London, Duncan Village has experienced a population growth at an alarming rate and this has led to urban sprawl in the city of East London and a rise in density, which has caused negative impacts on the environmental quality of Duncan Village Township (Duncan Village LSDF 2008). Climate conditions in Duncan Village are characterised by high annual average temperatures, high rainfall and high levels of humidity. These factors create difficult conditions for the local community of Duncan Village to enjoy and use public spaces as the sun is harsh and there is a lack of planted vegetation along the streets (public spaces). For future public spaces the issue of climatic conditions should be thoroughly considered in order to create favourable public settings for the local people.

Duncan Village's severe climatic conditions need bioclimatic or energy-efficient design strategies in order to improve the thermal comfort of built environment settings. Knowing what is happening in terms of climatic conditions in Duncan Village (refers to table 4:4) plays a significant role in having ideas on how to mitigate the severe impact caused by harsh climatic conditions. This should be addressed during the planning and design phases. Local people should also be involved during these phases.

Table 4-4: Climatic conditions

Climate factor	Data
Maximum annual average temperature	30.5 ^o c
Minimum annual average temperature	18.7 ^o c
Maximum annual average rainfall	700mm
Minimum annual average rainfall	400mm
Annual average wind speed	2.5m/second

Source: Duncan Village LSDF (2008)

According to the UN-Habitat Global Programme on Public Space (2015) adequately planned and designed public spaces contribute significantly to mitigation and adaptation strategies to climate change. It is indicated that green open spaces can play a significant role in minimizing carbon emissions by absorbing carbon from the atmosphere (UN-Habitat Global Programme on Public Space, 2015)

In order to minimise the negative impacts of climatic conditions in Duncan Village, the researcher adopted basic strategies for planning and designing public spaces from Montero (2001:59). The strategies are as follow:

- Make best use of the ventilation so that high humidity in the air will be reduced. This plays a fundamental role in minimising the negative effects of high temperatures which affect outdoor activities offered by different types of public spaces.
- Ensure the provision of adequate shade that may be utilised to minimise the extreme sun which may affect surfaces and outdoor environments. This may be done through planting trees, shrubs and offering groundcovers.
- Walkways and amenities such as benches should be strategically placed so that they can be protected from the sun. This plays a significant role in minimising heat gain and radiation in different types of public spaces.
- Materials used in the development of different types of public spaces should be white, or clear in colour so that solar radiation will be reflected and heat will also be reduced. If these materials are exposed to the sun there should be provision of shade and protection from the sun. The use of white as a colour on buildings and horizontal outdoor surfaces is recommended so that heat absorption will be minimized and there will be a reduction in sun radiation in different types of public spaces.

The above-mentioned design strategies may be incorporated in any type of public space that is going to be developed in Duncan Village. Duncan Village lacks favourable climatic conditions that promote human comfort and, as a result, there is a need to take into consideration these

strategies when developing public spaces and when upgrading streets which currently function as major gathering points.

To sum up this section, climatic conditions can play a large role in affecting public spaces if proper planning and design is not incorporated adequately. When climatic conditions are unfriendly like in Duncan Village, the harshness of the climate is increased by a lack of shade and trees along the streets. Designers and town planners must be thoroughly aware of Duncan Village's climatic conditions before any development of public spaces and must implement the design strategies mentioned above in order for public spaces to provide outdoor conditions that meet local residents' needs and preferences. Looking at the significance of the climatic conditions with regard to the attainment of local residents' needs, it is important to study the climate impacts in detail during the development of public spaces.

When planning and designing public spaces in Duncan Village, it is important to consider the climate of the region. Facilities such as small shelters and benches should be provided in the public spaces. Small shelters will offer protection to public space users when it is raining or hot. In addition, benches should be constructed within small shelters for users to sit and rest on.

4.12 BCMM public space development strategy/policy

Buffalo City Metropolitan Municipality (BCMM) does not have a standalone strategy for public space development and maintenance within its municipal area but the municipal IDP and its sector plans such as SDF, LSDFs, have sections which address development of new different types of public spaces and the maintenance of existing different types of public spaces.

4.12.1 Buffalo City Metropolitan Municipality integrated development plan (2016/2017)

The IDP (2016/2017) indicated that the municipality has 97 existing parks in the BCMM jurisdiction. The municipality is aiming to develop eight different types of public spaces (IDP, 2016/2017). Out of those eight public spaces, a park is earmarked to be developed in Duncan Village called Gwentsha Memorial Garden or Park. It will be named after a former ANC Youth League leader. The IDP stresses that there is limited budget for developing this park.

The IDP indicated the municipality will try to develop this park because Duncan Village does not have any planned public space except for streets which are in a dire state. Providing this type of public space may play a significant role in promoting social, economic and environmental

benefits towards local residents of Duncan Village. The site where the park will be developed is large enough to accommodate various activities.

The IDP (2016/17) stated that there is a need for provision of public spaces in townships. The IDP further stated that the social, economic and environment significance of public spaces within Buffalo City Metropolitan Municipality is totally neglected.

4.12.2 Duncan Village local spatial development framework (DV LSDF), (2008)

DV LSDF (2008) indicated that public open space is provided for the benefit and use of the public within Duncan Village and surrounding areas. The LSDF (2008) proposed a park to be developed in Duncan Village. It further states that the park should be beneficial in terms of economic, social and environment development among the residents of Duncan Village. The report indicated a location (refer to Chapter 5) where the park should be developed.

4.13 Conclusion

The chapter presents the socio-spatial and historical background of a study area. Knowing the historical background of local residents is regarded as an important factor to consider since it provides away forward in terms of the planning and design of different types of public spaces that can offer quality public life and also meet the needs and preferences of the local residents. It can also assist in redeveloping streets which currently serve as the main public spaces in the study area. The study also indicated the location of Duncan Village Township from regional context to local context. This was done in order to identify areas where different types of public spaces are preferred by local community members. Although land for a public park was already identified by BCMM plans, the locality of the study area made it simple for residents to indicate preferred locations for other public spaces. This chapter also looked at spatial structure, public spaces, dwelling structures, land use, land issues, the socio-economic profile, environmental analysis and BCMM public space provision and management policies. In terms of public spaces, streets were identified as the main existing public spaces. However these streets are not in a good state, as they need to be redeveloped in order to accommodate various activities required by local residents to meet their needs. The researcher also looked into different types of existing public spaces that attract residents and how they contribute to local economic development and their ability to minimise high rates of unemployment in the study area. Land use which influenced the availability of public spaces (streets) was also identified in the study area.

The land was also assessed in order to identify land suitable for development which could influence preferences in terms of different types of public spaces that community members preferred and also for development of formal housing structures with well-defined streets. The socio-economic profile factors such as age were considered in order to gain a clear picture of age groups within the study area. Total population of Duncan Village was also considered. An environmental analysis indicated that factors such as climate play a major role in affecting the functionality of public spaces (streets) in the study area. This is important in catering for the experiences of street users. Duncan Village is characterised by high temperatures which affects people in the streets. The Buffalo City Metropolitan Municipality does not have the budget for development and management of public spaces in several townships. BCMM's IDP indicated that the municipality does not value the importance of public spaces to the public. This affects the provision of public spaces in BCMM townships such as Duncan Village.

Chapter 5 which follows describes the findings from the data collection processes that were conducted by the researcher.

5 CHAPTER FIVE: DATA ANALYSIS AND FINDINGS

5.1 Introduction

The intention of the chapter is to present the specific findings of this research. The chapter is developed and structured in a manner which is in line with the aim and objectives. The findings of this research were developed from the data gathered by the researcher during the research process. The researcher found that the majority of respondents had knowledge about public spaces and their benefits to the community.

The chapter presents community perceptions about public spaces, experiences of residents towards streets and preferences of residents. This chapter also played an important role in understanding the community perceptions about crime within existing streets and also the experiences of public space users in terms of economic and social benefits offered by the streets. The preferences of public space users with regard to types of public spaces to be provided, activities to be accommodated, ways of designing, the planning and location of future spaces, are presented in this chapter.

5.2 Community perceptions about public spaces in Duncan Village

Community perception about the existence of public spaces in Duncan Village (DV) plays an important role in generating some understanding about the preferences, needs and types of public spaces (public park, plazas, streets, and sport complex) suitable for the habitual life of Duncan Village community members. According to Chesoh (2010), perception is defined as the process which promotes the attainment of awareness or understanding of sensory information that is derived from seeing, hearing, smelling, touching and orienting. As indicated in Chapter 1, with the exception of streets, Duncan Village does not have public spaces such as parks and plazas that bring people together. In this research, it was important to have the community members' perceptions towards the public spaces such as streets. This was done in order to have helpful information on what local residents of Duncan Village think about the importance of streets in terms of social, economic and environmental development. One participant said:

“Bhuti (brother) my perception with regard to these streets is based on the security. I don't feel safe in these streets. I see lots of people are having markets along Douglas Smith Highway and Jabavu Street.....i also perceive that streets are important within our neighbourhoods in the township of Duncan Village. I get fresh fruits everyday when I am

going to work....i work as a librarian at Gompo library. So all in all, streets are good because local people are able to meet their needs through street vending. But this issue of crime must be addressed so that we can be free to be in the streets anytime we want.”

The extract from the conversation indicated that the participant was afraid of being in the streets especially early in the morning or at night because of safety concerns in the study area. Duncan Village is well known for its high crime rate. The participant also indicated the importance of streets in Duncan Village since they provided opportunities for local residents to start their own businesses.

Public spaces are described as places which people access easily. They are valued in different ways, depending on what local residents think about existing public spaces. To support the previous statement, one participant said that:

“It is just very good to be in the streets. There is no need for taking public transport to the streets. It is very simple to access these streets because I can walk and there is no need for paying any fee to be in these streets.”

The extract from the conversation indicated that streets in the Duncan Village are easily accessible and they are regarded as a public good since no one pays to be on the streets.

Nasution and Zahrah (2014) indicate that various activities offered by public spaces play a significant role in influencing public space users to have different perceptions towards public spaces. To support the above statement, a participant said:

“For me, the way I see these streets are badly done, too narrow to accommodate all activities we want here. But in terms of economic point of view, these streets are good because lots of people are self employed and this is good very much.”

The quote above indicated that the way in which the streets are designed and developed is not correct because they did not accommodate the minimum requirements for street width and they did not have walkways. This might be caused by lack of space to accommodate informal activities. This can also influence access to the streets. The streets are too narrow to

accommodate the required activities. The quote further indicated that streets play significant roles in allowing the local residents to be self employed.

Young adults from Duncan Village indicated that activities within the public spaces allowed them to perceive public spaces differently to how adults and older people view them. For example young adults in Duncan Village used public spaces as playgrounds while adults indicated that public streets are business hubs within their area.

Some groups of public space users in Duncan Village indicated that they perceived public spaces differently when it comes to security concerns. The respondent said:

“I perceive that the streets we have here are bit safe but I heard many people talking of being unsafe areas to hang out with friends....but for me it is another story because I enjoy being in the streets at anytime. I perceive that these streets are friendly areas. You can even see how others are enjoying their lives in these streets....it is epic. I feel that these streets are quite friendly.”

The extract from the conversation revealed that not all people in Duncan Village regarded the streets as unsafe places. People perceived that the streets were friendly in the sense that everyone was free to use those spaces at anytime.

During the process of data collection the researcher interviewed one participant and who said *“bhuti (brother) here in Duncan Village we don’t have public spaces”*. During our interaction the researcher explained to him that the street is one of the types of public spaces. He did not agree with the researcher in this regard.

That participant further said:

“You know what bhuti (brother), since in Duncan Village majority of people use streets as public space; each street user sees public space in a way that is different from one another. What I see about public spaces especially in my neighbourhood is that public spaces have both positive and negative impacts on the society. Streets are business hubs of my neighbourhood. Good part of street bhuti, I never got formal employment from the municipality or company since I was born but because of Douglas Smith Highway, I managed to set up my zinc structure along the highway where I fix vehicle

tyres and sell second hand vehicle tyres to the local people who own cars. Through this I manage to put food on the table for my family and I also employed two guys who assist me here. My children are going to school because of this business which I practice along the street. Negative part of public space (streets), young people in Duncan Village are committing crimes especially when it is dark and when a person is walking alone during the day.

There were several informal business activities being conducted along the Douglas Smith Highway which supported the above participant's comments. Those businesses enabled the owners of businesses and their employees to support their families (as indicated in above quote). The security concerns in the streets of Duncan Village have been frequently cited by the users in the study area. The pictures below supported what was said by the participant.



Figure 5-1: Informal trading along Douglas Smith Highway



Figure 5-2: Street vending along Jabavu Street

Source: Researcher (2017)

Another participant indicated that

“From my knowledge of Ebuhlanti Public Park which is in other area of East London where local artists regularly perform their music, I perceive public spaces in a positive way because what I know about public spaces is that public spaces such as public parks allow local community to start their business; for example there might be functions like musicians come to the public park to perform and lounge their music and in the process local people can be able to do businesses. They also allow people to come together and socialise. In terms of health, public parks allow people to exercise (run, walk and jog) and this is good for all people (young and old).”

From the quotes above, it is clear that public space users perceive public spaces in different ways. Public spaces can provide different benefits for different people, influenced by availability of facilities that play major roles in making public spaces enticing and attractive to users.

During interviews, a large number of respondents in the study area thought that public spaces were important in their daily lives since the existing streets allow them to conduct their businesses and to exercise daily. The participants indicated that opportunities for business are one of the crucial features offered by public spaces. They said this because the majority of the participants were self employed in businesses conducted in public spaces. The researcher observed that both young and old people were seen along the Douglas Smith Highway, where commercial activities (both formal and informal trading) took place. During the interviews, the councillors and other participants (young adults and adults), perceived that having more public spaces within Duncan Village would uplift economic development, create a sense of belonging and a sense of community among the residents. The responses from respondents indicated how public spaces such as streets in the study area contribute to their living conditions. They indicated that streets accommodate all business structures (infrastructures) and the businesses allowed the participants are able to support their families. The majority of the respondents seemed to place a high priority on having different types of public spaces in Duncan Village. This perception was shared by both females and males who utilise public spaces. Therefore, a positive perception of different types of public spaces can play a significant role in enhancing the beneficial impact of the settings.

The researcher found that perceptions of public spaces in Duncan Village are affected by factors such as age group, gender, and ability.

5.2.1 Factors affecting the functionality of public spaces in Duncan Village

The factors that affect the functionality of public spaces depend on the users' perceptions because if they are not implemented or incorporated in the processes of planning and designing of future public spaces and redevelopment of streets, they can affect the use of spaces by space users. The factors that affect the functionality of public spaces were raised in order to compare what the residents of Duncan Village think about factors that affect the functionality of the streets and what was also identified by the researcher and the existing literature as factors that fundamentally affect the functionality of public spaces. The functionality of the public spaces in Duncan Village is measured by the following factors: accessibility, public space management,

ownership, uses and activities of public spaces, physical design and planning and human comfort (security, climatic conditions). These factors relate to the way local residents experience and understand the functionality of existing streets (public spaces) and what will be designed and provided in line with what the local community wants. The researcher observed that if public spaces function well, they play major roles in the social, economic and environmental development of Duncan Village.

5.2.1.1 Security

Lang (1994) and Montero (2001) are of the view that security is one of factors that affect the functionality and usages of public spaces. Public space users should feel secure while they are utilizing different types of public spaces.

With regard to this research, the respondents indicated that security is one of factors that affect the usage and functionality of streets immensely when used as main gathering points and business nodes.

One participant said that:

“This area is full of crime. Young people who abuse drugs do robberies even during the day and at night its worse you cannot walk alone in the streets. This issue of crime in Duncan Village drives people from the streets and it affect our businesses. Yesterday (22 July 2017) around 4:00pm two young boys came to my market stall and demanded money from me and luckily I used all the money I worked for that day to buy goods for the market. It was a scary moment because those two boys took out knives to threaten me but I told them that you young boys you can do whatever you want but I don’t have money here.”

Another participant said that *“when I am running, safety is bit of concern to me since this place has high rate of crime...and knowing that I am going to meet with guys who use drugs in the streets is too scary.”*

And yet another participant said:

“My children always go to the streets on their own to play with their friends, I always tell them that these streets are not safe.....I am always worried when they are out to the streets.....safety of my children is of paramount important.”

The quotes above illustrate that there is serious crime in Duncan Village and this affects the functionality of streets in the study area. The parents indicated that streets need to be safe in order to be accessed at any time.

The residents indicated that it is not safe to walk or jog alone late at night when there are few people visible on the streets. The residents indicated that robberies and assaults are the main crime concerns in the study area, especially along the Douglas Smith Highway and Jabavu Street where shops and spaza shops are closed at night. The participants indicated that the majority of the streets are not safe during the day and certainly not at night when there are no people around. The street vendors stressed that thieves loiter around their market stalls. The participants indicated that lack of security in Duncan Village affects public life within the public spaces. The participants indicated that high rate of crime in Duncan Village is due to lack of policing in the area. The participants revealed that women and children are vulnerable groups affected by the lack of security in the area. Women and children indicated that they enjoyed public life if other people are present (passive surveillance) and during the day. The presence of other people in the daytime was seen as a factor that might encourage women and children to use the streets in Duncan Village. The participants stressed that at night the streets were usually empty due to the perception of security concern due to lack of police visibility in the streets.

One participant said:

“I don’t want to go in the street at night because it is very dangerous. These streets do not have lights so criminals are hiding in the dark areas so that they can attack innocent people who want to be in the streets. I want the municipality to assist us with making this area safe so that we can also move at any time we want in the streets. Most of us use streets as gathering points, sometimes I feel victimize by this high rate of crime in our neighbourhoods.”

Another participant said:

“The streets of Duncan Village are full of homeless people and it is a challenge to me because I am scared of these people. Even those preferred public spaces that need to be provided are going to be the homes of the homeless people and in terms of security they are threat.”

The extracts from the conversation above illustrated that the streets of Duncan Village were characterised by high crime rates, hence, the residents were afraid of visiting them during the night. The streets also accommodated homeless people who posed threats to the users of streets.

Through the assistance of researcher, the participants indicated that it is important to develop different types of quality public spaces preferred by local residents which also implement Crime Prevention through Environmental Design (CPTED) strategies. The participants were made aware of the CPTED through the researcher. According to Ndaba & Landman (2014), public open spaces should be well designed and conserved in a manner that minimizes violence and crime while at the same time building trust amongst the residents.

5.2.1.2 Management

Public space management is one of the factors that plays a fundamental role in ensuring that public spaces fulfill their roles of meeting people's needs. As indicated previously, streets are the main public spaces in the study area. The local residents indicated that Buffalo City Metropolitan Municipality (BCMM) is failing to manage the streets in Duncan Village (DV). The residents further stressed that the local municipality is unable to maintain the existing streets. The researcher observed that streets are always littered which makes them unattractive and a health hazard. In addition Lopes et al (2012) indicate that failure to provide adequate security in the public spaces is another example of poor management by municipal authorities. The majority of the research participants indicated that Duncan Village is characterized by lack of security which also forms part of poor management of streets (public spaces). Lopes et al (2012) indicated that management has a responsibility towards the provision of security, control and maintenance. The residents indicated that there are maintenance problems experienced by the community. These include littering and dumping of domestic waste in streets. Some participants indicated that some people dumped their wastes everywhere. They urged that *"the people must know that this is our area and we own it.....we need to keep it clean"*.

The quote above indicated that some of participants had a sense of ownership towards the streets, so they wanted to be kept clean by the residents.

One participant said that:

“Look this area smells badly and a person can not wish to spend long time in these streets. Local people must take responsibility of managing these wastes and this area is ours and we hang out in these streets where people are using them as dumping sites. I blame the street vendors because majority of these wastes are dumped by the community members who have market stalls along these streets. Even nawe bhuti, you can see that Duncan Village does not have a dumping site, this is another problem that caused by Buffalo City Metropolitan Municipality. The municipality does not collect wastes regularly; it only comes to collect once per week or not coming for the whole week. Our councillors told us that wastes are collected twice per week on Monday and Friday but this is not happening here. Sometimes people forced the municipality to come and collect these wastes through engaging them in striking. But as community, we must come up with initiatives that we can use to minimise the amount of wastes which are in the streets. I suggest that as residents of this area, we need to recycle some of these wastes but opening a recycling centre needs money and you see bhuti, this area has a lot of informal housing structures, meaning that people who are staying here are poor and having that money for recycling centre is a huge challenge amongst us. For my own point of view, I need the municipality to come on board regarding this matter of developing a recycling centre within our area.

The above quote indicates there is a huge problem with waste management in Duncan Village and that local residents should make an effort to minimize the waste in the streets. In addition, the cleaning of the streets is an important aspect of management in public spaces and the municipality should be held responsible for this. The pictures below support the residents' comments about waste management and refuse collection.



Figure 5-3: Waste along street



Figure 5-4: Waste along street

Source: Researcher (2017)

5.2.1.3 Accessibility

Accessibility determines how easily public space users access existing public spaces. Most streets in the study area are easily accessed by all local residents. According to Bertolini (1999) accessible public spaces play significant roles in providing opportunities to all people.

One participant said that:

“Our streets are accessible to everyone who want to visit them but the only thing I can say is that there are lot of criminal activities within these streets.....and this crime scared people to visit the streets at night and even during the day when there are few people in the streets. What I need for the public spaces that were chosen, they must be accessible to everyone.”

The quote above illustrates that accessibility within the streets is affected by the high crime rates in Duncan Village. The streets are accessed by all people of Duncan Village.

The participants indicated that they were quite satisfied with the way in which existing public spaces are accessed. The residents further stressed that they are able to conduct any activities such as commercial activities (informal and formal trading activities), exercising (jogging, walking and running which supported by the streets during the day but there are no clear sidewalks along the streets. They said that at night streets or public spaces are not accessible due to security concerns in Duncan Village. The participants indicated that there are no lights along the streets which was confirmed by the researcher during field visits. The researcher also observed that some areas in the study area do not have proper streets due to the unplanned nature of informal dwellings, making accessing public spaces such as streets difficult.

The participants indicated that when new public spaces are provided, accessibility should be adequately incorporated in the designs and plans. Accessibility should be focused on pedestrians in Duncan Village as walking is also a way of exercising.

5.2.1.4 Ownership

Ownership of public spaces can affect their usage and functionality. In Duncan Village streets are the main existing public spaces and as such they are owned by the Buffalo City Metropolitan

Municipality. Although residents are free to visit the streets, crime often deters members of the community from using them.

One participant said that:

“These streets are open to every member of the society since there is no individual in Duncan Village owns the streets and they are belonging to the municipality which is responsible for maintaining and upgrading them.”

To support the extract from the conversation; through document review, the researcher also found that all streets in Duncan Village are owned by Buffalo City Metropolitan Municipality (BCMM IDP, 2016 / 2017 & SDF, 2014). Buffalo City Metropolitan Municipality is one of the spheres of government. USER Report (2015) indicates public spaces should be owned by the government so that access to them will be easy to all different people.

One participant said that:

“The streets as our public spaces in Duncan Village are the places that owned by all residents, and which, from a socio cultural point of view, is the community expression of the contact and communion among all the residents”.

The extract from the conversation revealed that the streets were areas in which residents of Duncan Village came together to socialise, unite and interact with each other.

Through document review, the researcher found that ownership of public spaces is used to regulate and control the use of different types of public spaces (PPS, 2012).

5.2.1.5 Climatic conditions

As indicated in Chapter 4, Duncan Village experiences harsh climatic conditions which drive public space users away from public spaces. The residents indicated that temperatures are high in Duncan Village. They further indicated that when temperatures are high, streets became empty. The researcher confirmed that on a day when the temperature was about 31⁰C there were few people in the streets. The participants highlighted that the local municipality had failed to provide shade along the streets. The residents were unwilling to visit the streets during the day due to the fact that there might be severe climatic conditions during that time.

One participant said:

“Bhuti (brother), it is too hot here. There is no shade to run to. You see I took off my T shirt so that I can minimise this hotness and I just want to relax in the streets but the temperature is too high. I think it is more than 30⁰C. The municipality must assist us by planting trees so that we can get shade. As community, we must not fold hands, we have to come up with a plan in terms of planting trees along these streets; and challenge is that who is willing to use tap water for watering trees? Obvious no one because most of us here we are unemployed and rely on the markets, spaza shops we have here”.

The high temperature affected the use of streets in the study area and the community members indicated that trees should be planted along the streets in order to provide shade to the users of the streets.

UN-Habitat Programme on Public Spaces (2015) and Montero (2001)’s research studies have indicated that climatic conditions play a significant role in attracting or driving away people to or from public spaces. The residents stressed that severe climatic conditions affect local people’s comfort in the streets.

Planting trees along the streets was suggested by participants. This suggestion of planting trees will provide shade along the streets and also promote human comfort among the space users.

Through observation and site visits, the researcher identified that harsh climatic conditions in Duncan Village affected the functionality and usage of public spaces. The people felt uncomfortable when exposed to high temperatures. These unfavourable climatic conditions can be reduced by building shade structures and planting trees for shade. When providing new public spaces climatic conditions need to be fully considered in designs and plans.

5.3 Experiences of users towards existing streets (public spaces)

5.3.1 Importance of streets

During interview one councillor said that *“currently, streets (public spaces) are viewed as one of the most important factors that play a significant role in contributing to the success of any neighbourhood”*. He further indicated that public spaces play an important role in fostering or

influencing a sense of community, community identity and culture among the residents, but unfortunately Duncan Village does not have public spaces such as public parks, plazas or sport complexes. Some elderly participants, described streets (public spaces) as spaces that influence social capital, economic development and community revitalization.

One participant said that:

“public spaces (streets) allow me to go out of my house and meet other people whom I don’t know, from there we interact and socialise and by doing this we create community bonding and sense of community among the residents of my neighbourhood. Apart from socialising, I also have a salon along Jabavu Street and the business is booming and I have four people who assist me in the salon and they are able to look after themselves and their families. In the same street, I sell second hand clothes to the community members at cheap price. So I wish the municipality can widen our streets and also provide large walkways where we can put our goods we sell.”

The extract from the conversation above revealed that the streets in Duncan Village play fundamental roles in influencing social interaction even among residents who did not know each other. In terms of economic activities, the existing streets promoted different business activities. During site visits, the researcher observed that there were several business activities along Jabavu Street.

The above quotes were supported by another participant who said during interview:

“I got employed at a car wash here. Bhuti, I was struggling to get a job but when the car wash was opened the owner of car wash was called me to come and work. From that day my life changed because I am able to buy myself clothes, food and even to rent a backyard room monthly. This car wash is located along Douglas Smith Highway because the intentions were to draw large number of customers since it is the busiest street in Duncan Village.

From the two quotes above, it is evident that public spaces play important roles in Duncan Village. The streets promote job creation among the residents of Duncan Village. The living standards of local residents were uplifted through a number of businesses sited in the streets.

The majority of the participants revealed that public spaces are vitally important since they allow them to conduct business, to socialize and to exercise. They use streets such as the Douglas Smith Highway and Jabavu Street as commercial nodes where both formal and informal trading activities take place. They further indicated that the commercial activities which occur in these streets play an important role in uplifting their living standards. Buffalo City Metropolitan Municipality SDF (2014) indicates that Duncan Village is characterized by high rates of poverty. Public spaces were identified as one of the economic drivers in Duncan Village. To support what the people of Duncan Village said in terms of economic development influenced by public spaces, Gehl (2007) indicates that public spaces play a significant role in contributing to economic development. The researcher observed that along the Douglas Smith Highway and Jabavu Street, there are many formal and informal markets. Participants interviewed, indicated that markets are located along those two streets because they are the busiest streets in entire Duncan Village and as such are highly trafficked by consumers. These views are supported by PPS (2012) which found that public spaces play an important role in building local economies through the introduction of markets. Through interviews, the owners of those markets indicated that they derive a basic income from the markets situated in Douglas Smith Highway and Jabavu Street. The participants indicated that at their best, those markets play a significant role in bringing people of different ethnic groups and income levels together in a safe, inviting public space. The PPS (2012) report further indicated that markets offer great opportunities for entrepreneurs at the lower end of the economic spectrum, especially women, to sustain themselves and their families with a minimum of capital investment. According to Francis (2003), the importance of public spaces has grown substantially as more and more public spaces have become well-frequented by the public.

The researcher observed that the residents of Duncan Village use public spaces as gathering points where they come together and socialize. One participant said that *“normally I use these streets with my friends as gathering points where I socialize with my guys....doing story telling among us and we enjoy this session. We always meet at the junction of Douglas Smith Highway and Jabavu Street.”*

The quote above indicates that participants in the streets in order to socialise. This type of socialising also promotes a sense of community among the residents. The junction of Douglas Smith Highway and Jabavu Street is mostly used as an area where the participants meet and socialise.

Participants spent most time in the streets of Duncan Village. The participants indicated that this promotes and strengthens a sense of belonging and a sense of community because the streets allow residents to come together and interact with each another. To support this finding, Talen (2000) found that public spaces play a vital role in influencing sense of community among the residents when they come together. During interview sessions, the participants indicated that there is a high level of sociability in the streets of Duncan Village. One participant said *“in Duncan Village there are no quality public spaces but streets which are in dire state have the potential to attract large number of people”*. The researcher compared this with findings from other researchers, such as Francis et al (2012) who found that successful or high quality spaces are those public settings that play a fundamental role in addressing issues of accessibility, activity and use, comfort and image, and sociability. PPS (2008) indicated that such spaces are easy to access and connected to the surrounding community, they have a variety of activities for different users, they feel safe, clean, and attractive, with adequate seating; and most importantly, they act as venues for people to interact socially. Duncan Village residents indicated that public places allowed them opportunities which promoted communication and socializing. Through this, public life is fulfilled in the public spaces. Gehl (1987:53) defines public life as everything that takes place in public spaces between buildings: sitting, chatting, walking, cycling, running, standing and playing, which form *“the life between buildings”*. The residents indicated that social interactions within public spaces are influenced and promoted by elements that allow the residents to walk in groups or that also allows them to participate in stationary activities such as seating.

One participant said:

“Yhoo, I like the vibrancy which brought by our streets here when I walk up and down the streets with my guys. I always chill and socialize with my friend and having good time. Majority of young people like to hang out in these streets and it is good for us because sometimes we exchange useful ideas among us.....socialising is one of the benefits of being in these streets.”

The quote above indicated young users of streets enjoying the public life in the streets. They came together to socialize in the streets and it was indicated as one of the benefits offered by various streets in the study area.

Gehl (1987) indicates that factors which promote walking among the residents are higher density. The majority of participants indicated that public spaces play a fundamental role in their health. They indicated that they walked and ran along the streets, meaning they exercised. The participants believed that walking, running and jogging have health benefits offered by the public spaces (streets) in the study area. During interview, one ward councillor said that *“public spaces promote healthy neighbourhoods so it is critically important to develop a number of different types of public spaces in Duncan Village. She further indicated that health neighbourhoods are characterized by having basic infrastructure such as water supply, sanitation, roads, electricity, and refuse removal”*. To support what was said by the councillor, PPS (2012) defined a healthy neighbourhood as one in which local residents have access to basic infrastructure such as clean water, ablution facilities, and sewage treatment. With regard to the previous statement, a large portion of Duncan Village lacks the basic infrastructure that promotes a healthy neighbourhood. PPS (2012) further indicates that a healthy neighbourhood is also described as a place where healthy food is available, where women and children can walk without fear, and where people can enjoy parks, squares, and other public spaces in safety and comfort.

To support the finding above, one participant said:

“Bhuti (brother), these streets are important because I wake up early everyday to have a walk and sometimes I jog and this is good for my health. Although they are not well maintained, these streets are crucial to our everyday lives. Lots of activities occur here. I also like the vibe which occurs within these streets.”

The extract from the conversation revealed that streets promoted physical health activities (walking, running and jogging) which were beneficial to the health of several street users.

The major findings from the participants were that public spaces play major roles in strengthening the social life or public life, empowering economic opportunity and promoting the well-being of local residents. Thus public spaces in Duncan Village are beneficial to local residents in terms of enriching them both socially and economically.

To support this, one participant said:

“Bhuti (brother), availability of these markets along these streets make it easier for me to go and shop at anytime I want. There is lots of fresh fruits everyday and this is very good

to my health and other people. You can see I am elderly person, walking out of my house to the market is part of exercising for me.....and I also talk with the vendors and we laugh which is good for old person like me. There are lots of positive things which are brought by these streets.”

The quote above illustrates that the streets accommodated several fruit markets which allowed local residents to access fresh fruit at cheaper prices and while the customers walked to the markets, they provided a form of exercise which is vitally important to health.

With regard to the findings above, one participant said:

“Ah, these streets are important to me because I hook up with my guys in these streets and we socialize....we have good time here. These places bring peace of mind. You even see there are lots of food here in these streets and they are cheap....we enjoy them daily. These street vendors understand our living conditions here in Duncan Village because they don't charge us too much on their goods which they sell.....at big shops like Shoprite and Pick n Pay it is another story because same goods we buy here at cheap prices are too expensive and you can see the importance of having streets which accommodate vendors. It is a bonus to us.”

The quote above highlighted the significant roles played by streets in terms of providing affordable food to the local people. Duncan Village is characterised by a high rate of poverty so those street vendors knew the living conditions of their customers and this is why they made the food cheap and affordable.

To sum up the above section, Duncan Village residents viewed public spaces as built environment settings in which local residents come alive, areas in which bonds among strangers and neighbours are reinforced and where a sense of community and a sense of belonging is influenced or fostered. The participants further identified public spaces as settings that act as catalyst for social development, economic development and promote environmental sustainability. The residents viewed public spaces as one of the approaches that can be used to meet the specific needs and desires of the Duncan Village community.

5.3.2 Public space users

USER Report (2015) indicates that one of the fundamental principles is that public spaces must be viewed and regarded as public settings that are open and usable for any member of society. During site visits, the researcher observed that the public spaces (streets) were visited by different people. Chen & Jim (2008) indicate that public space users differed in terms of age and gender needs for sport and recreation and willingness to travel for a particular type of activity. The researcher observed that the streets in Duncan Village enable a public life among the residents. During interview, the participants revealed that the activities offered by existing public spaces (streets) in Duncan Village play a significant role in attracting different public space users to be present in public settings. The researcher observed that older people visited streets for socializing, training and conducting commercial activities (formal and informal trading).

During semi - structured interviews, one young person (a public space user) said:

“After school I make sure that I come to the streets to play with my friends. This is good to me as a child because I meet or hook up with new friends in the streets everyday and we click the same time. We play together; streets are our playing grounds since our neighbourhoods lack playing grounds and playing grounds are accessed at schools during school hours; after school you would not access them again; so it’s a challenge to us as children. Here in the street I have the freedom to do whatever I want to do because my parents are not here. Bhuti nawe you know that parents always want to control children but here in the street I am alone with my best friends and new friends and it is good for us because we are having our quality time here. We run, jog and play ball, watching cars which pass along the street. So life is good in streets. We only go home when we are hungry and when it is dark because it is not safe to be in streets when it is dark”.

The extract from the conversation revealed that children in the study area used streets as their playgrounds since they were accessible at anytime of the day. The children met in the streets to play, make friends and also to be away from parental control. There is lack of security on the streets and children indicated that they fear for lives, especially, at night.

The researcher observed that the streets in Duncan Village attract both young and old people. Pudsey and Anleu (1997) indicate that some public spaces are likely to attract older people specifically because of the unstructured and unorganized nature of the public settings. In the

case of Duncan Village, public spaces found in the study area are unstructured and unorganized but they are able to attract children and young adults.

One participant said:

“I hang out with a large group of young people into the streets and the atmosphere is always vibrant.....providing different spaces where young people can gather together is also attracting elder people like me. I feel good when I am surrounded by young people.”

One old participant said *“to hang out with large groups of youth is not good because I feel threatened but it depends with some young men and women who are in your company.”*

Another participant said *“I always get huge groups of teenagers having fun and hang out in the streets.....but I mean I did not feel threatened at all.”*

The quotes by the participants illustrate that young people are also vibrant users of streets in Duncan Village. Aspirational public spaces must take into consideration the needs of young people and old people who like to mix with young people in these spaces. The issue of safety is raised when old people are around the youth. Old people indicate that they do not feel safe when they are with young people due to the possibility of drug abuse amongst the latter.

In the study area, children were seen utilizing streets close to their homes as playgrounds and sharing the streets with motor vehicles. The children were using the streets to play football and netball. Kevin Lynch (1960:79) observed that *“much of children’s play and socializing occurs in public places close to home...the regulation of local streets and small open spaces is viewed as a significant subject”* so he came up with a number of recommendations in order to lessen or redirect traffic from streets or areas where children live.

Through focus group discussion with children and their parents, one child said:

“With regard to children, it is vitally important to be provided with outside safe places where we can play in and then for as a kid I need the municipality to give us a park where we can play and meet new friends....this is important to us when we check the safety of these existing streets.....we share same street with vehicles.”

The quote indicates the importance of providing safe spaces for children to play because the streets are dangerous due to the fact that they share the same narrow streets with vehicles. The participants require parks to be provided.

To support the findings of the researcher, CABA Space (2008) indicated that children have the right to have spaces for playing, recreational and cultural activities. CABA Space (2008) further indicated that play is regarded as important for many aspects of children's development, from the attainment of social skills, experimentation and the confrontation and resolution of emotional crises, to moral understanding, cognitive skills, such as, language and comprehension, and physical skills. There are good quality public spaces that include well-designed school grounds in several premises of local schools. The school grounds play significant roles in filling this gap caused by increasing sprawling informal housing structures of Duncan Village, offering children with opportunities for having fun, playing, exercising (walking, running, jogging) and learning. To support the previous finding, the researcher brought a picture of one of the school grounds in Duncan Village.

Figure 5-5: Basket ball ground from Nomzamo secondary school



Source: Researcher (2017)

Through focus group discussions, some of the children with their parents indicated that they use streets to escape from the loads of schoolwork or homework on their minds and also to meet with new friends from other neighbourhoods. The participants indicated that they enjoyed functions and entertainment which are offered by public spaces. Mashalaba (2013) indicates that children have a tendency to improvise and create their own play areas if existing public spaces are neither accessible nor usable. In focus group discussions, the participants (children with their parents) revealed that during their school days in Duncan Village they had

opportunities to access quality and well-managed public spaces which belong to local schools instead of the currently offered Duncan Village public spaces. They also indicated that they wanted to experience, learn and explore independently the public life which is promoted by public spaces. Zhai (2014) indicated that such experiences play a significant role in the children's psychological and physical health as well as in their social development. Through observation, the researcher found that the children referred were from low income households. A study conducted by UNESCO (2002) on the needs of children from low income households indicates that friendly and secure public spaces determine the happiness of these children. The children in the study area indicated that they needed secure and friendly public spaces so that they could play with friends and move around independently.

The older participants (both males and females) in Duncan Village indicated that they use public spaces, particularly Douglas Smith Highway and Jabavu street for various purposes. The two streets allow them to enjoy some of benefits which are offered by different types of public spaces. Kellet and Rofe (2009) stressed that there should be a need to design neighbourhoods with public spaces that support the needs of older residents. Duncan Village older participants stressed the importance of taking into account their specific needs when providing aspirational public spaces so that public spaces will be beneficial to them. They indicated that existing public spaces play significant roles in their lives. Those participants considered existing public spaces (streets) as vital places in the study area. Zhai (2014) indicates that public spaces such as parks and plazas are considered to be important to the adults (both males and females). With regard to the study area, there are no parks and plazas but local adults indicated that they enjoyed witnessing and participating in daily social life on the streets. The researcher observed that both older males and females sold goods such as second hand clothes, vegetables along the streets. They stressed that motor vehicles should be managed in ways that older people will be able to conduct their daily activities. In the study area the existing public spaces are used by more females than males. Older participants were interested in business activities which were offered by the streets. The participants indicated that the future public spaces should be able to accommodate the above-mentioned activities.



Figure 5-6: Children playing in the street



Figure 5-7: Children playing in the streets



Figure 5-8: Young adults & Adults



Figure 5-8: Adults

Source: Researcher (2017)

5.4 Preferences of residents

5.4.1 Types of spaces residents prefer

Public acceptance plays a significant role in the usage of different types of public spaces. According to Bureekul (2000), public opinion, perception and satisfaction are identified as the often key motivating factor for successful acceptance. Before the researcher went to the field for collection of the data of different types of public spaces to be developed in the study area, he started by developing a typology of public spaces in order to compare what the participants can choose and he did not disclose the typology because he wanted to ascertain local residents' preferences. The majority of the participants were familiar with different types of public spaces. The typology of public spaces of the researcher was comprised of public park, streets, and plaza. From the typology of public spaces which was compiled by the researcher, a majority of the participants were familiar with a park and streets and few participants knew about a plaza

through visiting other parts of the province or a country. The participants asked a sport complex to be incorporated in the typology. This has been done in order to accommodate all participants' choices in terms of what types of public spaces are needed in Duncan Village. Different age groups, gender and abled and disabled people were asked to identify their preferences with regard to types of different public spaces to be provided. Different types of public spaces that preferred by local residents should be provided with walkways, lights, benches, public telephones, waste disposal and shelters for shades.

Focus group discussions and semi - structured interview were conducted in order to accommodate children during interview processes. The participants indicated that public spaces should be developed by the government authorities (national, provincial and district and local municipality) in order to accommodate large population of Duncan Village.

The participants indicated that preferred public spaces should be accommodating activities that play significant roles in fostering social, economic and environmental development within the study area. According to UN-Habitat (2015), public spaces should play a leading role in providing a range of activities (formal and informal) that complement each other to ensure the vibrancy of an area. The participants indicated the following activities to be provided in the public spaces: commercial activities, social, recreation and physical activities or exercises such as walking, jogging, running, and playing. The majority of old women indicated that they needed these public spaces to cater for walking and jogging, street vending, and to serve as gathering points for socializing. During focus group discussions parents and children indicated that they needed public spaces such as sport complexes, streets and parks for playing and meeting new friends. Men indicated that they wanted these public spaces for exercising, socialization and recreational activities. Pollock (2014) is of the view that it is important to create public spaces that promote walking, standing and sitting. Therefore, public spaces that are preferred by local residents should have tables, benches, stairs, and walls that promote walking, sitting and standing.

The researcher wanted to accommodate few participants who chosen a plaza to be developed in the study area. He explained the significance of a plaza in order for the participants to understand what the plaza can offer if it is developed in Duncan Village. This helped the participants to consider a plaza as one of the preferred spaces. Therefore the researcher showed them pictures of plazas and shared literature on the importance of plazas with them. The participants then chose plazas to be included in the typology. The researcher found that the

participants preferred sports complex, streets, park and plaza to be provided in Duncan Village. The researcher and participants amended the first typology which had been compiled by the researcher. The final typology of public spaces incorporated four public spaces namely: (i) sport complex, (ii) public park (iii) plaza (iv) streets. As mentioned above, currently streets are the only public spaces available to the community of Duncan Village. The participants indicated that streets were already available, but they need upgrading and maintenance in order to meet the community needs. The majority of ward councillors indicated that public spaces should be developed so that they could influence social, economic and environmental development positively in Duncan Village.

During an interview session, one ward councillor said:

“As a public representative, I wish those chosen different types of public spaces to be developed, planned and designed in a manner that local residents’ and even outsiders’ needs and preferences will be met. Development of different types of public spaces in Duncan Village is one of good developmental initiatives that can trigger the upliftment of the living standards of local residents. Development of these public spaces should be a consultative process in order to include every citizen of Duncan Village in the development process of these public spaces. This can also allow the needs of public space users to be incorporated in the development of public spaces.”

The extract from the conversation above revealed that public spaces were viewed as spaces that had the potential to promote social, economic and environmental development in the study area. The extract further indicates that public spaces should be playing significant roles in allowing the Duncan Village public space users to enjoy the benefits which are offered by preferred spaces.

The majority of the participants indicated the public spaces that they were familiar with, so it was easy to understand why they had been chosen.

With regard to the implementation of the typology of public spaces, the consolidated typology of the researcher and participants can be easily implemented in the study. The study borrowed Stanley’s and Al-hagla’s (2008) typology which comprises the same typology of public spaces as used by the researcher and participants. Stanley’s and Al-hagla’s (2008) typology also consists of sport complex, plaza, park and streets as chosen by the residents of Duncan Village.

For each chosen type of public space, the local residents provided reasons. These reasons are described below:

5.4.1.1 Streets

During the interview, few participants were not aware that streets are a type of public space. However, one participant said *“through this study I learn something.....streets are public spaces.”*

Other participant revealed that:

“Bhuti (brother) you know what I want these streets to be upgraded in a way that I can run my business properly. This street where I am sitting is very important to me and my family because I managed to set up a small market stall for selling amagwinya (fat cakes) to school children and workers. I wake up at 4:30am daily to prepare amagwinya for my customers and by 6:30am I make sure that I start selling amagwinya at this small market stall which located along Douglas Smith Highway. On good days I make between R350 – R500 per day by selling amagwinya (fat cakes) throughout the day. The street allows me to do business and I was unemployed but now because of Douglas Smith Highway I managed to be self-employed. I always interact with different people when I am doing my business especially kids who are going to school and I like this too much and you kids are interesting. I wish Buffalo City Metropolitan Municipality must give me a permanent structure so that I can run my business nicely. Enkosi bhuti (thank you brother), I so wish your research can be taken to the mayor of BCMM so that he can hear our problems regarding the state of our streets here and the municipality is doing nothing for us to get employment. These streets are important because they allow us to start our businesses, so I need them to be maintained and upgraded”.

As indicated earlier, the above quote indicated important roles which are played by streets in Duncan Village in terms of business opportunities offered to local residents. The participants indicated that streets should be redeveloped in order to accommodate all activities required by the local residents.

To support the above quote, the researcher also indicated that streets are regarded as fundamental public spaces found in every city and a means of support for social and economic

development. The participants indicated that streets needed to be maintained and upgraded for people to conduct businesses, to socialize and to exercise.

During interviews, the participants indicated that they wanted proper urban planning and design for streets that meet their needs. The participants indicated that streets provide for a range of activities such as commercial activities, socialisation, and exercising (walking, running & jogging) for the public space users. The majority of the participants indicated that Duncan Village is characterised by a high unemployment rate but the existing streets enable local people to be self-employed through activities such as street vending which is a common occupation in this community. Bromley (2000) defines street vending as an ancient and essential occupation found in virtually every country and major city around the world. The researcher observed that street vendors play a fundamental role in adding vitality to the streetscape and making contributions to economic activity that improve living standards. However, the researcher also observed that street vendors promote congestion of vehicles belonging to customers and contribute to health and safety risks. The researcher observed that there was litter along the streets where local vendors conducted their daily business. The street vendors were blaming local municipality (Buffalo City Metropolitan Municipality) for failing to collect the litter regularly. The majority of residents practiced street vending on a full time basis due to lack of employment in the City of East London. In the study area street vending is concentrated along the Douglas Smith Highway and Jabavu Street. Both formal and informal trading activities occur there. Formal trading activities played roles in attracting customers who often chose to buy cheaper goods from informal markets.

Apart from street vending, the participants stressed that streets play an important role in providing opportunities for local community interactions and fostering a sense of community.

The map below was drafted after discussion with the participants who indicated that the existing streets need to be re-planned and redesigned, so that they were not completely auto-centric, and encouraged social cohesion of local residents by guaranteeing local people interaction, and offering safe public spaces that play a fundamental role in influencing cultural expression among the residents. The participants indicated that the streets needed to be expanded so that they could accommodate the required activities. The map below indicates streets of Duncan Village which are increased in size.

Plan 5-1: Streets



5.4.1.2 Parks

From the typology of public spaces developed by both the researcher and the participants, the participants preferred parks to be provided within the study area due to their benefits to the local community. During the interview, the councillor indicated that a park is one of the priority projects to be developed in Duncan Village and their Local Spatial Development Framework prioritized the park to be developed. It was recommended that it should be named after a former ANC Youth leader who had died decades ago. The participants indicated that they wanted a memorial park to be developed in Duncan Village. The idea was raised by participants during an interview to develop the old burial ground into the Gwentsha Memorial Garden or Park to honour the ANC Youth League founder Alcott Gwentsha who died in 1966 and was buried at the site. Through document review, the researcher found that the area is earmarked for memorial park development by Duncan Village LSDF (2008).

One participant said that:

“Having a park in Duncan Village is blessing in disguise because a park has the ability to offer different crucial activities to the residents of the Duncan Village. In terms of

environmental benefits the park should be provided with areas which earmarked for the vegetation provision. Health wise, the people will be exercising anytime they want.”

The quote above indicated that the park has the ability to offer economic, social and environmental benefits to the public park users. It is important for the local residents to have a park that can meet their needs and preferences in terms of required activities.

The participants indicated that parks have the ability to improve local people's physical and psychological health, strengthen the Duncan Village community, and make three neighborhoods of Duncan Village more attractive places to visit, live and work.

One participant said:

“Once that park is developed in Duncan Village, people like me will stop visiting parks which are outside Duncan Village. I always go to Ebuhlanti Park every weekend to have peace of mind but it is costly because it is bit far, so if Gwentsha Memorial Garden or Park can be developed here I will be over the moon.”

The extract from the conversation revealed that participants were eager to have a park within their neighbourhoods. Some local people visited parks outside Duncan Village for relaxation but it was identified as being too expensive.

The participants indicated that they needed to have parks so that they could exercise more daily to improve their physical health. According to Sherer (2003) regular physical activity contributes greatly in increasing well-being and minimizes the risk of a wide range of diseases, including heart disease, hypertension, colon cancer, and diabetes. He further indicated that physical activity also played a significant role in relieving the symptoms of depression and anxiety, it improves one's mood, and enhances overall psychological well-being. Apart from the benefits of exercise, researchers such as, Chiesura (2014) identified that contact with the natural environment plays a fundamental role in improving physical and psychological health.

The councillor said:

“Nature play significant role in taking out stress from people who visit places like public parks with vegetation and animals like birds; hearing birds making noise in your ears can erode all stress and also seeing ever green vegetation is too attractive.”

From the extract above, it can be seen that the park can play significant roles in getting rid of stresses among the park users. The participants indicated that green space in township like Duncan Village would play a significant role in the promotion of substantial environmental benefits among the residents.

One of the participants, a geography teacher at local school indicated that *“trees contribute a lot in minimizing both air pollution and water pollution, they assist keep cities cooler, and they are seen as better option for managing stormwater and run-off than building systems”*.

The above quote revealed environmental benefits offered by the parks. This is also beneficial to the health of local people.

The community members expressed that neighbourhood parks play a significant role in fostering social and community development benefits within society. They indicated that public parks contribute greatly towards increasing local residents' sense of community, ownership and stewardship, they offer a focus for neighborhood activities, allow youth to be exposed to nature, link people from diverse cultures and could minimize crime in the area. The participants indicated that Duncan Village has high rate of crime rate. The participants thought public parks could play significant roles in minimising the crime rate through attracting young people to the park.

One participant said that:

“I imagine myself going into the park which has ever green vegetation and having a walk or just sitting down having a peace of mind and feeling relaxed. This park must be provided soon so that I can enjoy its benefits to the fullest.”

One young adult said, *“trees as one of park features can contribute in providing the relaxation and restoration effect, just by seeing it”*. The participants indicated that parks offer a range of

activities: they offer several benefits for quality of life, such as psychological and physical health, recreational benefits and the fulfillment of the need for a pleasant township environment.

Another participant said:

“I am just tired of seeing myself chilling in these streets with grey concrete; I think a park is a good space to be especially for my moods. My mind is thinking of excellent greenery which offered by a park.....look at Ebuhlanti Park at Beach Front....that park has nice trees which I admire a lot. Wish those people who developed that park are the ones who can also develop our own park here. I think the park can make you feel relaxed from hectic situations.”

The extract from the conversation above indicated that a participant needs a park so that they can enjoy greenery which offered by park.

In line with the above-mentioned benefits, the people of Duncan Village stressed that there is a strong need for the three neighbourhoods of Duncan Village to be provided with public parks that can benefit everyone regardless of age, gender, ability or disability. All local residents interviewed articulated that public parks are preferred over plazas and sport complexes as public spaces in Duncan Village.

One participant said

“As a young person, I think the park should be developed in a way that there will be more benches because young and old people need to sit on benches....also green grasses must be provided in a manner that we can sit down well.”

The quote above indicated the amenities that need to be provided in the park. It is important for a park to accommodate those amenities because they play significant role in the use of parks by local people.

The participant said that:

“I like the fountain to be provided in the park.....i want it for my children. I usually take my kids to the Beach Front in order for them to play with water. The fountain allows kids to run around and by doing this the kids will be enjoying. Even as a parent you feel good when

you see your kids playing with water. This park must be developed in a way that everybody who visits can have a peace of mind there.”

The quote above illustrates the way in which the park should be developed through provision of desired amenities that people may use when they visit the park.

The diagram of the park below (Plan 5.4) was drafted together with the participants during focus group discussion sessions. The participants who were present during the focus group discussion sessions provided their input in terms of developing the diagram below. It is the ideal proposed park which the participants want to be developed in Duncan Village.

The quotes above reveal that the participants indicated that the desired park should have green vegetation. The existing trees will be not destroyed in order to offer the required green vegetation.

From a business point of view, the plan for the park also proposed a market square where local residents will be able to sell their goods to park visitors. Urban agriculture may be a source of employment opportunities within the study area as it is indicated in Chapter 4 that Duncan Village has a high unemployment rate. The agricultural produce from urban agriculture and fruit gardens may be sold to the park users or customer. The plan proposed an area with commercial braai facilities. For example, at Ebuhlanti Park, the BCMM provided a braai area where local people braai meat brought by visitors at R40.00 per braai. The park may have a square which may be accommodate small shops that sell goods to park users.

Some participants indicated that they wanted water features in the park, so a pond may be provided. A nursery may be support urban agriculture and fruit gardens which are proposed in the park.

The park may accommodate a tourist information centre as Duncan Village has a rich history as indicated in Chapter 4. There is also the grave of a former ANC Youth League Leader in park. All information about the history of Duncan Village will be accessed from the tourism information centre.

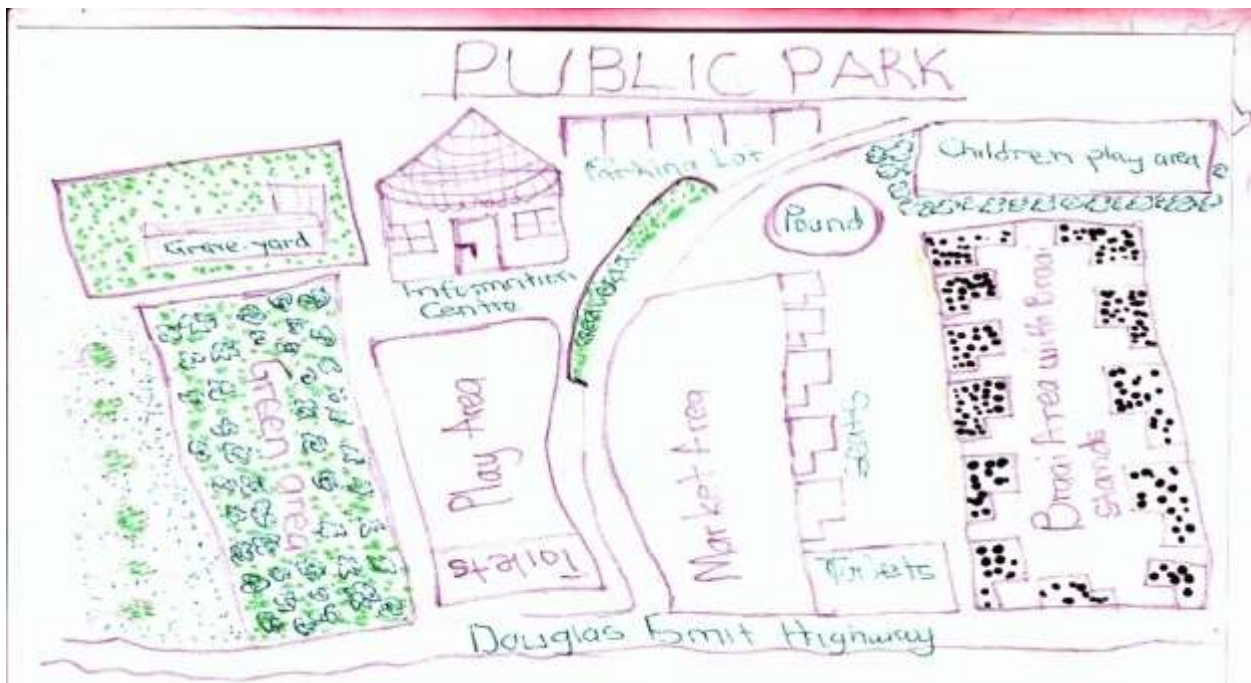
Since the majority of the participants indicated that they wanted to meet new and old friends in order to socialize and promote a sense of community among the residents, an open park area

was proposed in the plan 5.4 below to accommodate those activities. Children and young adults revealed that they wanted a park which allowed them to play and exercise; therefore there will be a playground and sports area for children and young adults.

Plans 5.2 and 5.3 are examples of some of the drawings which done by participants. These drawings feature the facilities, which need to be included in the park. The facilities are braai area, seats, toilets, market area, play area for children and adults, green area, information centre, pound, entertainment area, benches, and swimming pool and water fountain. These facilities played significance roles in influencing the development of a final plan (Plan 5.4). The drawings of the participants were used by a researcher to come up with a final drawing which incorporated all the participants' preferences. The researcher consolidated plans 5.2 and 5.3 in order to accommodate these preferences. A consultative process between the researcher and the participants led to the development of Plan 5.4.

The grave site indicated in the park is not one of the activities needed by residents but it was indicated in the park in order to show the exact location of the grave of Mr. Gwentsha who died in 1966.

Plan 5-2: Gwentsha memorial park drawn by one of participants



Source: Participant, (2017)

Plan 5-3: Gwentsha memorial park drawn by one of participants



Source: Participant, (2017)

Plan 5-4: Final Gwentsha memorial park



Source: Researcher and participants (2017)

5.4.1.3 Plaza

The residents of Duncan Village described the plaza as a main civic centre of any community. They indicated that the plaza plays vital roles in the development of the township of Duncan Village. They further expressed that the plaza contains many activities that can play significant roles in meeting local people's needs. As indicated by Zakariya et al (2014) the public plaza operates as an open space that allows people to conduct different types of activities and events in the city and neighbourhoods. They further stressed that the life of public plazas develops and changes according to the current demands of the people.

One participant said:

"If the plaza offers spaces for the residents of Duncan Village to play, sit and talk....then there is no problem as Duncan Village residents we are looking for such places...it will be performing the functions which are needed by us here. It will be allow us to play outside of our doors.....we need this. It will be performing a function that can play significant roles in benefiting the people. Please look all people who are in Douglas Smith Highway....people need such places to interact....there are kids running in and out and there are youth and older people doing the same and some are doing business. That plaza will be good in Duncan Village."

The quote above illustrates that the plaza may be beneficial to the residents of Duncan Village provided that it perform its functions which are required by the local residents.

The participants indicated that plazas could play vital roles in the development of the township of Duncan Village. The researcher found that only few participants know what a plaza was and that was because they were staying in large cities like Pretoria (Tshwane), Johannesburg and Port Elizabeth.

One participant said:

"A plaza will be good in Duncan Village because more shops and activities will be attracted by a plaza; by doing this there will be high chance of employment opportunities within Duncan Village. From my experience from Johannesburg, plazas are provided with a number of amenities which are good to our local people especially youth. Large number of people visit plaza and it will be good for Duncan Village residents because they will be

interacting and socialising with one other. For developing a plaza in Duncan Village is one the best investment ever in the history of Duncan Village.”

The extract from the conversation indicated the benefits of a plaza to the residents of Duncan Village. The extract indicated that a plaza has the potential to attract large numbers of residents to socialize and promote economic development through the employment opportunities generated for the local residents.

During interview, the researcher explained the concept of a plaza to those who were not familiar with it. But those who know what a plaza was through visiting relatives and working in big cities, indicated that a plaza contains many activities that can play significant roles in meeting local people's needs in terms of business or social activities.

Although the majority of participants were not familiar with the term “plaza”, through discussing the plaza's benefits they were convinced of its potential to uplift the living standards of local people in Duncan Village. Those participants who knew about plazas indicated that it has ability to allow people from various cultures to interact. Through that, they identified sociability among the residents as important factor within the community of Duncan Village.

One participant said:

“The plaza should accommodate water ponds because children and young people need to play in water and there must be enough shops for employment purposes. It will be nice to see water flying from the pond.”

The quote above illustrates the activities that need to be provided in the plaza so that it will meet the needs of different public space users such as children and young adults.

To summarize this section, the preferred different types of public spaces were viewed by Duncan Village residents as they have the authority to transform the township of Duncan Village and foster pride, a sense of community, and a sense of belonging. This can be transformed into sustainability, economic development and increased quality of life for the residents. The uniqueness of the idea of asking what types of public spaces are preferred by Duncan Village residents is triggered by the fact that town planners and urban designers must consider the local community's needs and aspirations when they plan and design these public spaces. It is

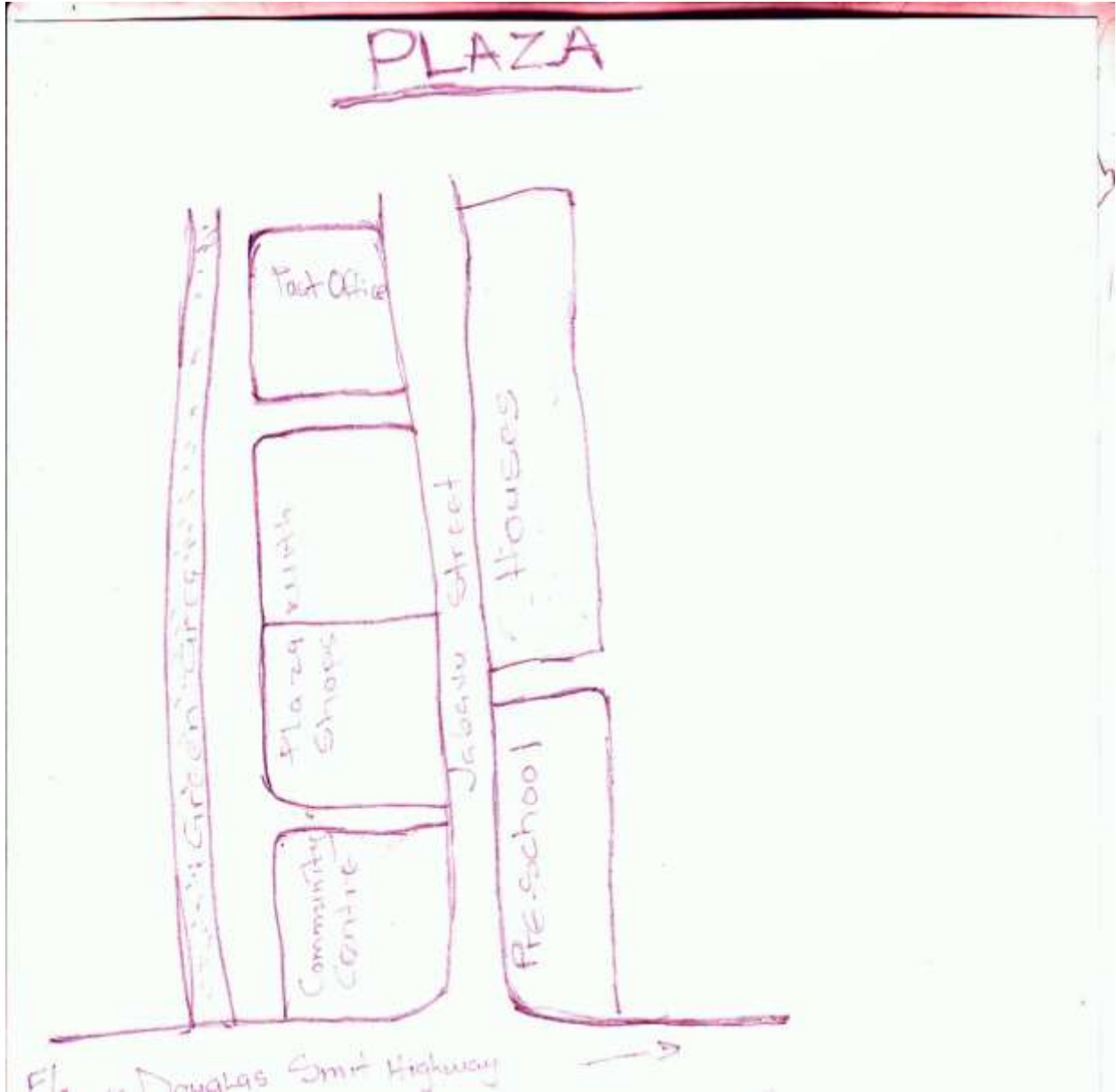
indicated that town planners play a significant role in offering a place structure and access, the communities were viewed as the main actor that gives public settings vibrancy. The councillors indicated that municipal officials such as both town planners and urban designers must create, plan and design public spaces with the Duncan Village community.

To produce the final drawing for a plaza, the researcher asked the participants to draw their preferred plaza. The participants drew plans of a plaza which they felt that they could meet their needs in Duncan Village. Plan 5.6 consisted of a community centre, plaza with shops, green space and a post office. Plan 5.7 has the following facilities: market area for business purposes, entertainment area, shops, arts and culture centre and a green area. To develop the final spatial plan for a plaza, a researcher consolidated all facilities from Plans 5.6 and 5.7. In terms of the location of the plaza, the participants indicated the plaza should be developed along Jabavu Street which they sketched in linear format

During the second session of interviews, the researcher drew a draft for a plaza and discussed it with the participants. At this stage, the participants were familiar with the word plaza and the benefits of a plaza to the community of Duncan Village. The plan for the plaza was amended in order to incorporate the participants' design inputs. That process which led to the development of the diagram shown in Figure 5.8 below.

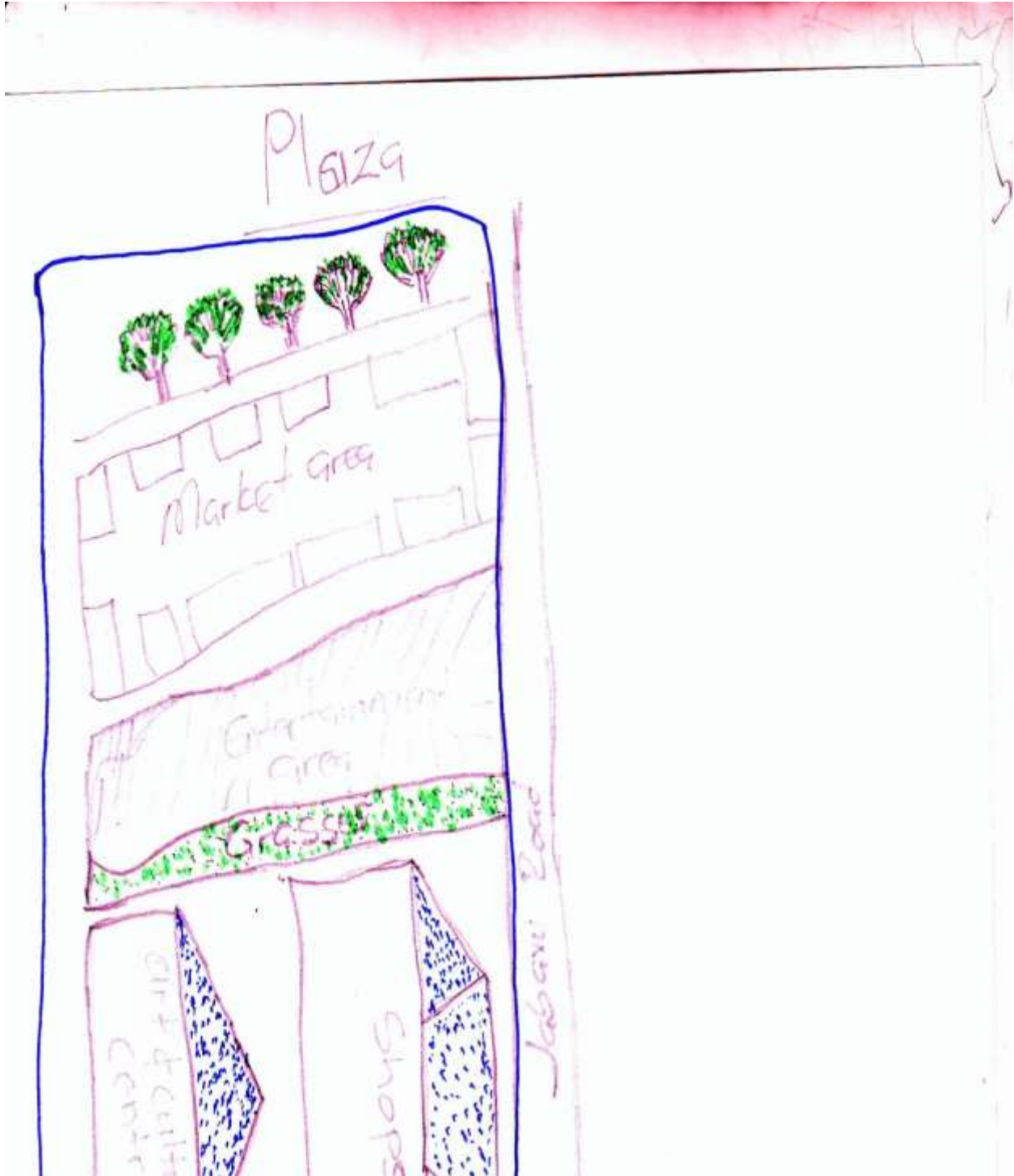
Figure 5.8 was discussed with participants and they agreed on the sketch design of the plaza which should be developed along Jabavu Street. The participants chose Jabavu Street because there are other existing community facilities. The diagram below promotes the orderly provision of planned land activities along Jabavu Street.

Plan 5-5: Plaza sketch design by a participant



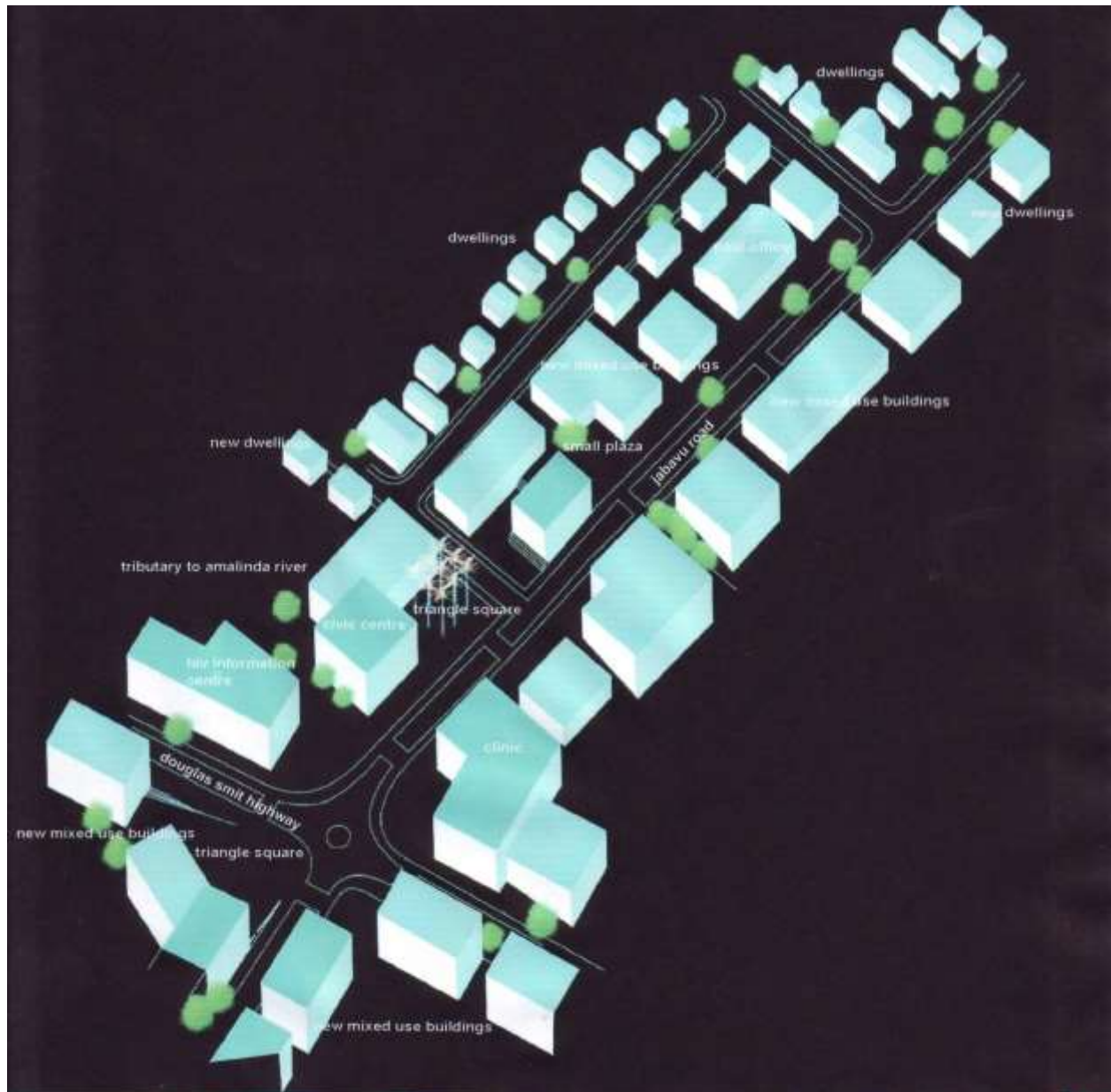
Source: Participant (2017)

Plan 5-6: Plaza sketch design by a participant



Source: Participant (2017)

Plan 5-7: Plaza sketch design



Source: Researcher and participants (2017)

5.4.1.4 Sports complex

During the data collection period, Duncan Village residents indicated that they required a sports complex to be provided in their community. The participants indicated that sporting activities are part of the culture of Duncan Village residents. The participants also indicated that there were some athletes who came from Duncan Village. The participants reported that Duncan Village has a huge potential for development of sports for women and men. Hoye et al (2015:34) defines a sports complex as a built environment setting that incorporates a variety of sports

facilities. During discussions with the participants, they indicated that the sport facilities which should be provided in the proposed sport complex should include running and walking tracks, field stadiums, football stadiums, baseball stadiums, swimming pools, and gymnasiums. More facilities were indicated in the diagram below which was developed by the participants and researcher. According to Thorpe et al. (2014) sport is defined as all types of physical activities that, through proper and well structured public engagements, aspiring at articulating or improving physical fitness and mental well-being among the residents, creates social relationships or getting results in competitions at all levels.

“Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. Sport can awaken hope where there was previously only despair. Sport speaks to people in a language they can understand”. (Nelson Mandela, 25 May, 2000)

The residents of Duncan Village revealed that the area has young people who can engage in sport professionally. The participants revealed that Duncan Village is well known for producing professional boxers. The participants further revealed that the provision of a sport complex will be beneficial to the community of Duncan Village. The residents felt that the existence of a sports complex might assist in combating problems such as crime and drug abuse among youth. Fujiwara et al. (2014) maintain that sport plays significant roles in influencing a sense of community, a sense of identity, and that it can provide an arena for community engagement, pride, and achievement.

One ward councillor said:

“The sport has the ability to unite all families of Duncan Village if it is properly supported by government and our Buffalo City Metropolitan Municipality. Duncan Village needs infrastructure that supports the growth of various codes of sports within our wards. We have proved the world that Duncan Village has the potential to conquer the whole through boxing. Sports can take our children from abusing drugs and this is one of the main problems which we are facing here. So this project of developing a sport complex I fully supports it.”

Thus the participant believed that the sports had the potential to attract people to come together and to unite in the name of sport. They further indicated that sport plays vital roles in the health

of the local residents. The participants revealed that sport allows all people to exercise regardless of age group

The participants indicated that the following activities should be accommodated in the sports complex: athletics, cricket, soccer, hockey, boxing, netball, rugby and tennis. These activities influenced the development of sport complex in Figure 5.8 below. The researcher developed a first draft of a sport facility which he presented to the participants for comment and input. The plan was amended to accommodate the participants' suggestions. The final plan (Plan 5.8) was developed which is shown below. The participants and the researcher agreed that the indoor centre (7) on Plan 5.8 is a place where boxing matches will take place and it will also serve as a training facility for aspirant boxers.

Plan 5-8: Sport complex



Source: Researcher and participants (2017)

5.4.2 Preferred locations of types of public spaces

To enable participants to identify the preferred locations for public spaces the researcher presented them with an A1 sized map of Duncan Village. Fortunately, local councillors have approved plans which proposed certain public spaces within Duncan Village. For example, local councillors indicated that there is a piece of land with the grave site of an ANC Youth leader and that land is earmarked for the development of a park. This is in the Duncan Village Local Spatial Development (2008). Older participants indicated that they were aware of a portion of land which had been earmarked by Buffalo City Metropolitan Municipality for developing a park. The majority of participants indicated that they knew the land through public consultations which had been conducted during the compilation of the Duncan Village Local Development Spatial Framework in 2008.

In this research, a location is an area or piece of land where different types of public spaces preferred by local residents will be situated. The residents indicated that these public spaces should be strategically located in order to cater for and accommodate the three neighbourhoods of Duncan Village. The location of public spaces plays a fundamental role in the usage by different public space users (Sokol and Dritan, 2012; and Kellet and Rofe, 2009). In choosing locations for preferred types of public spaces, the local residents were influenced by the distance between the site and three neighbourhoods. The participants indicated that the preferred public spaces should be located in close proximity to their three neighbourhoods.

As the majority of participants had indicated that the area is characterized by a high crime rate, women and children requested that public spaces be located closer to their homes. They reasoned that proximity to their homes would increase visibility and deter potential crimes in the public spaces.

The participants indicated that the plaza should be located at Jabavu Node because it is the central point of the three neighbourhoods of Duncan Village. They further indicated that it will be easily accessible to the whole community. The participants revealed that the area currently serves the community of Duncan Village as a service centre or node. One participant indicated that *“developing a plaza at Jabavu node can be beneficial to the whole community of Duncan Village”*. Another reason advanced by the participants was that there are few community facilities such as a post office, clinic, or shops that serve local residents.

One participant indicated that:

“For a plaza, Jabavu node is perfect place to accommodate it because Jabavu node is a commercial node for the whole Duncan Village Township and it is important to develop a plaza there. There are existing community facilities at Jabavu node so in my view it is good to integrate the existing land use activities and the plaza which is needed by community members.”

The extract from the conversation above indicated clearly that Jabavu Node is the perfect location for the development of a plaza since there were existing community facilities that could easily be integrated with the proposed plaza.

As indicated above, participants indicated that the park should be developed at the grave site of former ANC Youth Leader Alcott Gwentsha. The residents indicated that the area is big enough to accommodate all preferred and recommended activities by local residents. The area is accessed through the Douglas Smith Highway and a tertiary road that links Ziphunzana Bypass which connects East London CBD and Mdantsane Township.

One participant said that:

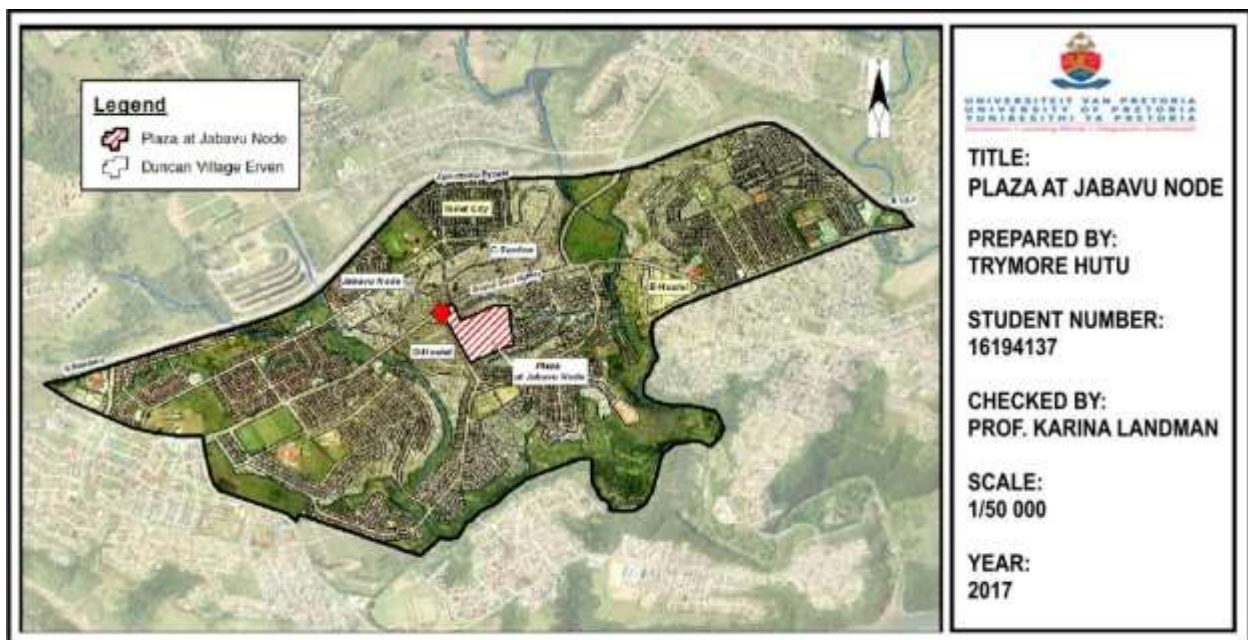
“You see what bhuti (brother), this land which is set aside for development of park is strategically located; this park can also accommodate other people who are not the residents of Duncan Village. This can assist in terms of business opportunities among Duncan Village residents because other people from other parts of East London will be attracted to this park. There will be an interaction between local residents and other people from outside of Duncan Village. The land is approximately measured 5.4ha in extent and it is big enough to accommodate all activities that we want to be provided in the new park. In my point of view, I see good investment in this land. Buffalo City Metropolitan Municipality must speed up this process of developing this land into a world class park. As you see bhuti, there are bushes in that land and it is dangerous to walk alone here because most of crime takes place here; so developing a park here is other way of chasing criminals. So I need the municipality to develop it soon.”

The extract from the conversation above indicated that the proposed park will be strategically located which will also be able to attract people who are not residents of Duncan Village. By

doing so, business opportunities within the study area will grow among the residents of Duncan Village. The residents need the municipality to develop this park quickly because the park offers social, economic and environmental benefits to the park users.

With regard to the sports complex, the residents of Duncan Village indicated that the sport complex or facility should be developed in Duncan Village central. This is because they want the facility to be at a middle point where three neighbourhoods of Duncan Village can access it. The residents indicated that the sport complex should be located closer to Gompo Stadium in order to integrate the sports activities. There is some vacant land and informal housing which can be moved to accommodate the facility.

Plan 5-9: Preferred location of plaza



Plan 5-10: Preferred location of park



5.4.3 Activities preferred by space users

It is vitally important to accept that for people to use different types of public spaces they should be considered suitable for the functions for which they were intended. Beer and Higgins (2000) indicate that for public spaces to be used by local people they must be safe and attractive and they must have benefits for the users. It was observed that the majority of public spaces (streets) in Duncan Village are in poor condition but that they are used regardless of that. The participants indicated that they used those streets because there are no other public spaces such as parks or plazas in the area. Some streets (public spaces) within the study area were also littered with garbage.

Zhai (2014) indicates that use of certain public places occurs after the users have discovered what is likely to occur in those places, have made a realistic assessment that street life can be exciting and interesting, and after they have checked out the negative features within the public settings. Carmona and Wunderlich (2003) point out that public space users desire different activities in the public spaces at different times of the day.

Through observation, the researcher found that the following were main uses of public spaces in the study area: businesses (formal and informal trading activities), exercise, leisure and sports. The respondents indicated that they use public spaces (streets) for business trading activities (formal and informal). The local street vendors stressed that streets are regarded as trading

grounds within the study area. The participants indicated that trading plays a fundamental role in uplifting local economy of several households of Duncan Village. The customers of local street vendors indicated that street markets play significant roles in providing a wide range of goods and services at cheaper prices and are regarded as the foundation of a sustainable economy within disadvantaged townships like Duncan Village.

One street vendor said:

“I have been selling vegetables here for thirty years, and I’m very attached to this street market. If the Buffalo City Metropolitan Municipality (BCMM) destroys this street market down and constructs a new market somewhere it is going to cause a lot of havoc and confusion for the vendors, and customers to find what they need. And my customers will not like buying in new markets, so I’m scared the business will decline and I rely on this market for survival. This will have negative impacts on my living condition at my house. My customers are used to this street market where they comfortably buy their vegetables and go home.”

The quote above indicated that the participant is so attached to her / his market stall because he/she spent many years doing business on the same spot and it will be difficult for him/her to relocate and her / his customers are also used to this same spot for a while. He / she knows some of his / her customers by name and he/she give them credits if they do not have cash to buy his / her produce. The participant is conducting his/her business along Douglas Smith Highway, the busiest road in the study area which is always full of potential customers, so the street vendor does not want to relocate. This business is regarded as informal business in the Buffalo City Metropolitan Municipality Plans so the municipality can ask the owner to move the stall at any time and that is a source of fear and insecurity for the vendor. There are municipal plans for relocating all informal businesses to the formal business area.

The participants indicated that street markets are viewed as vibrant trading points within the study area where an abundant variety of affordable and fresh healthy vegetables and goods are found. Street markets also play a significant role in fostering socialization between the vendors and their customers. Since street markets are regarded as the lifeblood of the informal economy, as they offer jobs (self employment) and affordable goods. Bromley (2000) is of the view that street markets play a fundamental role in the functioning of the townships.

One respondent said that a strategy used by local street vendors to attract their customers was to have a fixed market stall, and to offer quality edible goods that are fresh and enticing. The participants revealed that street vendors should clean up their market stalls in order to make their trading areas tidy. The vendors felt that local residents preferred to buy vegetables at their markets because they are cheaper than East London's chain supermarkets.

The researcher also observed that vendors had another important role apart from contributing to the growth of local economy. Their presence offered a measure of safety in the streets and helped to keep crime rates low.

The participants indicated that they used public spaces (streets) to exercise daily. Zhai (2014) indicates that exercise in streets is regarded as a sociable activity even when people engage in it alone. He further stressed that there is a huge difference between using exercise equipment and getting exercise outdoors. Walking, jogging, or running in the street, or exercising in a class outdoors, by contrast, plays a fundamental role in providing enjoyment and entertainment so that one hardly notices the time go by (Zhai, 2014).

One of the participants said:

"I frequently walk and exercise in the Douglas Smith Highway. My house is closer; I must walk for a few minutes to get myself fit, so I always do this daily. Before starting exercise I had a problem with my legs, painful inflamed joints, but since I forced myself to exercise things are looking much better, and also availability of street markets with fresh vegetables which are cheaper allows me to buy vegetables and eats better too. This can also allow me to meet with other local residents and then talk to each other."

From the quote above it is clear that streets play major roles in improving the health standards of people. It also further indicates that the participant was exercising in the streets to keep healthy. From a business perspective, streets accommodate street vendors who sell fresh vegetables at affordable prices and since Duncan Village has mainly low income earners, having local markets which offer goods at cheap prices is extremely attractive for local residents. Streets also influence people to socialise with each other.

The researcher observed that children and young adults play in the streets in Duncan Village. Zhai, (2014) indicates that play is regarded as the sole domain of children and is perhaps a

rather unimportant activity, enjoyable but hardly essential. He further indicates that adults are seen as serious people who engaged in serious activities such as recreation, with no time for anything that is insignificant as play.

Engwicht (1999:78) indicates that, *“the alternative to spontaneous street play is being driven to an organized sporting event. Here children interact with their peers in an event where the rules are made by someone else and enforced by an authority figure. The game emphasizes competition and individual performance rather than cooperation. While there are other values associated with this kind of planned event, the valuable citizenship and place-making lessons are missing. It is also poor training in the democratic processes of shared responsibility for society’s collective life.”*

Play is seen as a catalyst that immensely contributes to fostering an important form of human contact among people. Currently local residents of any society are attracted by successful public spaces which are characterized by offering a choice of activities. Some participants indicated that they visited the junction of Douglas Smith Highway and Jabavu Node in order to meet different people because a number of activities take place there. Cultural activities occur at that junction and most of the traders are found there. To support the previous statement, Gehl (2007), indicated that both in the past and more recently meeting other people is regarded as an important function of urban public space, nevertheless, there is now a new expression which Gehl (2010) has called the ‘Cappuccino Culture’, as a motivation for many people to remain longer in public spaces. At Jabavu Node, the researcher observed that there are a number of shabeens and spaza shops where people in the streets buy drinks to enjoy while they are on streets. A spaza shop is defined as informal shops in the South African context.

The respondents indicated that there are a number of activities that should be accommodated in the different types of public spaces which are going to be developed in identified parcels of land in Duncan Village. The activities that are preferred by the local residents are as follows exercise (playing, walking, running & jogging), relaxation or leisure, movement, recreational, social (meeting and gathering, hanging out with different people), and business activities (both formal and informal trading activities). In terms of movement, CABE Space (2008) is of the view of that one of the crucial functions of public space is that it should play a fundamental role in allowing public space users to move around, on foot, by bicycle, car, motorbike or public transport.

Most of the activities that are preferred by the local residents in new public spaces (plaza and park) are currently offered by the streets. The following figures 5:9 to 5:15 indicate various activities and uses of streets in Duncan Village.



Figure 5-9: Informal trading along Douglas Smith Highway



Figure 5-10: Informal carwash along Douglas Smith Highway



Figure 5-11: Second hand clothes trading along Jabavu Street



Figure 5-12: Street vending along Douglas Smith Highway



Figure 5-13: Formal Spaza Shop along Douglas Smith Highway



Figure 5-14: Street Vending along Jabavu Street

Source: Researcher (2017)

5.4.4 Planning and design of public spaces

Within Duncan Village, planned and designed public spaces such as plazas and parks do not exist. Streets function as planned and designed public spaces. The residents recommended that they need a plaza and public park to be provided in Duncan Village.

One participant who know plaza said:

"I know plaza from Port Elizabeth because I stayed in Port Elizabeth for about 5 years and I was working at one of the shops which was part of plaza. So having a plaza in Duncan Village is good because there will be a number of jobs which can be created and local people can get jobs through development of plaza. Plaza will be promoting vivid public life to the residents of Duncan Village who can use plaza for place of enjoyment, socialising and economic benefits. This plaza must be consist of several shops, place to stay or seat and water fountain and green grasses."

The extract from the conversation above indicated that few participants were familiar with plaza before the researcher explained what a plaza was. They indicated the benefits which the plaza possesses.

As indicated above, they articulated the benefits offered by two different types of public spaces. They showed that they preferred a well-planned and designed plaza and public park as these could play fundamental roles in assisting local residents to meet their needs and preferences. The residents indicated how a plaza and park should be developed in terms of design and planning. The locations of the public park and plaza were indicated on the maps above and there is a cognitive map 3.1 which is in chapter 3 that also indicates their locations. The manner in which the sites were chosen by participants was indicated above. The way in which the public park or plaza should be developed is indicated in the diagrams above which were sketched by both researcher and participants. Gehl (2010) indicates that well-designed public spaces play vital roles in enabling local residents to meet their needs, preferences and also influencing a sense of community, and a sense of place and identity among local people. The residents indicated the desire for having a well-designed plaza and park so that these public spaces can give effect to the needs and preferences of the people of Duncan Village.

Carr (1992) says that good design of public space occurs when there is harmony between the physical environment and social dimension, which can play a significant role in stimulating the user's activities, comfort, and encourage social relationships among community members.

Carr (1992) also adds that planning and designing public spaces must express three values, as follows:

- Responsive, means it must play significant roles in responding to the basic needs of users with regard to comfort, relaxation, engagement active/passive, and discovery.
- Democratic, means freely accessible for all the people
- Meaningful, means having strong relationship between users and its milieu.

5.5 Conclusion

The chapter revealed the findings of the research study. The background information on the perceptions, experiences and preferences of residents was provided in this chapter. In terms of perceptions towards existing streets, the research found that the participants perceived public spaces differently. The majority of the participants viewed public spaces as business hubs for self-employed people. Some participants raised the social aspect of public spaces. The perceptions of residents differed due to activities offered by certain public settings, age groups, and genders.

With regard to the experiences of the residents towards streets, the residents indicated the importance of streets (public spaces). The participants indicated that streets are very important in their lives since they allowed local residents to conduct business which plays significant roles in uplifting the living standards of local people. Some participants revealed that they use public spaces for exercising (running, jogging and walking) and as gathering points for all people within Duncan Village.

In terms of preferences, this chapter looked at types of public spaces that were preferred by residents, the factors that affect the functionality of public spaces, the users of the spaces, activities to be accommodated in the spaces and the preferred locations of spaces. The researcher and participants drew up the typology of public spaces together and the participants recommended that examples of these be developed in Duncan Village. The typology of public spaces consisted of a plaza, a public park, a sport complex and streets that needed to be repaired and upgraded. In choosing those types of public spaces, the participants were interested in the benefits which those public spaces could offer to the residents of Duncan Village.

The users of public spaces were identified in the study. The study found that all people, children, young adults and old people were the users of streets in the study area. Children and young adults used streets as spaces for meeting with new friends and socializing, playing, and exercising. The adults revealed that streets are used for business, socialising and exercising. The researcher provided an A1-sized map of Duncan Village for the participants to choose the preferred locations for the public spaces. The site for a public park was already indicated in the Duncan Village LSDF (2008) and most older participants were aware of this. The participants indicated that streets offer them opportunities for various activities which should be accommodated in spaces that preferred by the residents. These activities are as follows: (i) exercising (running, walking, and jogging), (ii) socializing, (iii) places for meeting new people and friends, and (iv) business (formal and informal business activities).

The participants identified factors that affect the functionality of public spaces (streets) in Duncan Village. These factors are as follows security, management, accessibility, ownership, and climatic conditions. In terms of security, the participants indicated that the streets are not safe places especially at night. There are no street lights. The participants revealed that the municipality is failing to manage the streets and they are always dirty. The participants are also failing to manage them since they are the ones who own them. With regard to accessibility, the participants indicated that the streets are accessible to every member of Duncan Village. Ownership of streets falls under the jurisdiction of Buffalo City Metropolitan Municipality (BCMM). A number of researchers have indicated that public spaces should in the hands of government to make them accessible to all who want to visit them regardless of age, race, disability and ability or income status. The climatic conditions of Duncan Village are harsh and they affect the way people visit the streets. It is very hot in Duncan Village in summer and there are no shelters to provide shade along the streets. In terms of the planning and design of public spaces, the participants indicated that the aspirational public spaces should be designed and planned in a way that they can accommodate the preferred different types of activities. The participants indicated that the above factors that should be considered when aspirational public spaces are provided.

The issues raised by the respondents will be of paramount importance for orientating design and will have planning implications for different types of public spaces preferred by local residents, It was found that Douglas Smith Highway accommodated various types of

commercial activities (both formal and informal activities) which is source of employment for many residents of Duncan Village. Chapter 6 will provide a discussion of the findings.

6 CHAPTER SIX: DISCUSSION OF RESEARCH RESULTS

6.1 Introduction

This chapter is a discussion of the findings in the study area. The principal discussion areas comprise three major topics namely, community perceptions about public spaces, experiences of the residents towards streets and preferences of residents in terms of different types of spaces to be provided, activities to be accommodated in those spaces and locations of spaces.

6.2 Community perceptions about public spaces

Previous research and theoretical interest has focused on the importance of public spaces to users. Broadly speaking, perceptions about currently available public spaces involve what local residents think about the existing public spaces. Fataar (2017:12) is of the view that public space users viewed public spaces differently depending on what the public spaces offered them in terms of activities. Perceptions about public spaces were also influenced by race, gender, age and income status within the neighbourhoods (Alex and Jim, 2010:34).

In this study, the participants also viewed the roles of public spaces differently. People perceived that public spaces, especially streets currently available in the study area, as spaces which offer multiple benefits. For example, children viewed streets as playgrounds accessible after school hours and as places to meet new friends. Young adults viewed streets as spaces to meet friends and socialize, and additionally as places for employment because of the informal businesses such as car washes and hairdressing salons located on the streets. Adults viewed streets as spaces to conduct business activities (both former and informal business) and also as areas to meet people. The participants often perceived that streets offered them different benefits such as (i) social benefits (ii) economic benefits (iii) environmental benefits (iv) physical benefits and (v) mental benefits. There is considerable interaction among the people within the Duncan Village Township. Burgess et al (2014) are of the view that streets as public spaces influence a general sense of pleasure, enjoyment and satisfaction among the local residents. According to VEDRÉDI (2012:32), the importance of different types of public spaces is ultimately decided by the end users. She further indicated that people perceived that public spaces offer various activities which can be judged by the users.

Community perceptions of public spaces tend to focus on the importance of public spaces to the community. In addition, elements such as management, accessibility, activities accommodated

in the spaces, safety and security, design and the amount of usage also play huge roles in how the users of public spaces perceived existing spaces.

Perceptions of public space users towards different types of public spaces are one of the focuses of this research, but there is limited research on the perceptions of township residents towards different types of spaces in South Africa. There are studies conducted outside Africa that explore the perceptions of public space users towards the different types of spaces, but none focus on townships like Duncan Village.

6.2.1 Factors that affected the functionality of public spaces in Duncan Village

The findings of this study that perceptions of users towards the functionality of different types of public spaces is influenced by accessibility, management, ownership, and security have been confirmed by other research, notably Mashalaba, (2013:45). This section indicates some factors perceived by participants as they affect the functionality of streets (public spaces) in Duncan Village. Generally, security concerns, management, accessibility, and ownership of public spaces are factors that affect the functionality of any public spaces within the society. Participants highlighted maintenance, upgrading and redevelopment of streets within Duncan Village as important priorities before other issues such as security and accessibility could be addressed. Talen (2000) argued that well maintained streets would be better able to meet the needs of economic and social development.

a) Security

Security is one of the factors that need to be addressed when different types of public spaces are provided in the community. The safety of the users is a basic human need in any built environment setting. Safety and security determine whether people visit the spaces and play a role in promoting vivid public and social life in the community. According to Montero (2001), both the psychological and physiological needs of the public space users need to be met, to facilitate social encounters among residents, promote a sense of community and establish a sense of place. Lang (1994) stressed that there should be a sense of psychological security within any type of public space used by residents. In terms of security and safety, the residents of Duncan Village were aware of areas with high crime rates as they are familiar with their surroundings. This is confirmed by Wekerle and Whitman (1995) who point out that safety among the users of spaces depends on users having knowledge of the neighbourhood and having ways of getting help if necessary.

There were great security concerns about the streets of Duncan Village but people are forced to use the streets because there is no other public space in the township apart from the streets. The participants indicated that drug abuse among youth in Duncan Village was rife and that it contributed to the high crime rate in Duncan Village. It was reported that it is very dangerous to be on the streets at night and sometimes even during the day if the streets were relatively deserted. The information regarding security was collected through open-ended interviews and focus group discussions. The local media's coverage (Daily Dispatch for Eastern Cape Province) also highlighted the high crime rate in Duncan Village. Beaney (2009) indicated that streets in the areas which are characterized by security concerns, proper interventions need to be provided in order to minimize the incidence of crime in the streets. In this research, women and children indicated that they were afraid to visit the streets at night or when the streets were deserted. Thompson et al (2005) found that women and children avoided visiting public spaces due to the fear of becoming victims of crime.

Although township streets are generally viewed as unsafe settings for local people and visitors, they do however play significant roles in accommodating various activities which are preferred by the participants.

b) Management

The perceptions towards management of public spaces as a factor that affects the usage of spaces have been confirmed by research, especially, Mashalaba (2013) and Pollock (2014). Previous research studies indicated that the management of public spaces plays an important role in enabling different types of spaces to achieve their function and meet the needs of different space users (Dempsey and Burton, 2011; and Magalhães and Carmona, 2007). Management of public spaces is one of the sensitive factors with implications in terms of the functionality of different public spaces. Well-managed public spaces play a significant role in attracting users to the different spaces. Jain (2014), and Magalhães and Carmona (2009) are of the view that the maintenance procedures which also form part of management of public spaces is fundamental to allow existing spaces to perform their expected duties. In the study area, there was an evident lack of public space (street) management visible in the fact that the streets were in a dire state and required maintenance in order to be fit for their purposes.

The municipality and the community members were clearly failing to manage the streets and keep them safe and clean. Lopes et al (2012) indicated that failing to provide adequate

management of public spaces had negative impacts on control, security and maintenance. In most cases, streets in townships are characterised by uncollected litter which poses a health hazard to the community members. The municipality is not collecting the litter regularly and the community members have failed to come up with initiatives to get rid of the waste in the streets. The researcher noticed large amounts of uncollected litter along the streets of Douglas Smith Highway and Jabavu Street. These are two streets that attract large numbers of Duncan Village residents and businesses. Failure to provide security measures in the public spaces is another sign of poor management of public spaces because it affects the operation of the spaces. This research also found that there were security concerns along the streets of Duncan Village and that led to poor management of public spaces.

c) Accessibility

By nature, public spaces are defined as free spaces which can be accessed by any user at any given time. When the public spaces are accessible, users are free to undertake any activity offered by that particular space.

All public spaces that promote accessibility are regarded as fully democratic public spaces. Carr et al. (1992) revealed that accessible public spaces play fundamental roles in allowing different users to meet their preferences and to experience both social and psychological comfort. Regardless of the state of the existing streets (public spaces), most spaces (streets) in Duncan Village are accessible to all public space users. However, in some areas of Duncan Village, which are occupied by informal housing structures, access to the streets was a major challenge because in those areas people who wanted to visit the streets would have to walk for many metres. Harnik (2003:24) indicated that accessibility in any public space should be provided regardless of the location of the settlement, personal physical disability and socio-economic conditions. The arrangements of the settlement pattern in the study area showed both formal and informal housing structures, with the latter making accessibility to the streets difficult. Accessibility can affect the functionality of public spaces if it is not taken into consideration during the planning and design phases. A document review indicated that Buffalo City Metropolitan Municipality is conducting a relocation process within Duncan Village in order to create enough land for development (BCMM IDP, 2016 / 2071). Zajac (2013) indicated that accessibility is one of aspects that promote the usage of any public space. This research found that some areas do not have any defined street so reaching the Douglas Smith Highway and

Jabavu Street to experience public life, enjoy social interaction, participate in exercise or conduct businesses is a challenge for the affected residents.

d) Ownership

Kohn (2004) defined public spaces as settings that are owned by the government in order to fully promote the publicness of spaces. If public spaces are owned by the government, there are no restrictions in terms of visiting of the public spaces (Kohn, 2004). Staeheli and Mitchell (2008) revealed that ownership of public spaces is one of powerful factors that plays a significant role in the functionality of any public space as it allows the users to have their preferences met and to experience what is offered by existing spaces.

The ownership of public spaces (streets) is in the hands of government. All existing streets (public spaces) in Duncan Village are owned by the Buffalo City Metropolitan Municipality. Buffalo City Metropolitan Municipality is one of the spheres of the government and aspirational public spaces may be also owned by government. This information was collected through document review and through interviews with councilors. All parcels of land where preferred different types of public spaces (park, plaza, streets and sport complex) are going to be developed are owned the Buffalo City Metropolitan Municipality.

6.3 Experiences of space users towards existing streets (public spaces)

6.3.1 Importance of streets

The public spaces (streets) possess physical elements and activities that play significant roles in provision of several benefits towards quality of life and those benefits are as follows: economic value, socialisation and physical and mental health. Despite such important benefits towards public space users' daily lives in Duncan Village, the local municipality does not value the contributions of public spaces towards economic, social and environmental development as local residents do. The IDP (2016/17) of Buffalo City Metropolitan Municipality indicated that currently the development of public spaces in its municipal area is not a budgetary priority.

Kohn (2004)'s research has revealed that streets play significant roles in enhancing the economic and social benefits among the users of the streets. Talen (2000) found that the streets

have the potential to influence social benefits among the community members. This research found that along Douglas Smith Highway and Jabavu Street, there were many important activities that took place which played significant roles in meeting the needs of local people. Mehta (2013) found that the streets in the neighbourhoods play an important part in influencing the social, economic and environmental benefits among the space users.

The participants revealed that public spaces such as streets have the potential to offer various activities which are vital to their lives. Social encounters among the different space users are important within societies. The existing streets have the potential to cater for social interactions among the street users. PPS (2013) indicates that public spaces are spaces that have various key roles to play in the lives of different types of public space users and function as community places where the entire community can benefit. In Chapter 5, the research noted that the streets play significant roles in the lives of different public space users. Fresh fruits sold on the streets provide healthy food for the users. This research also compares the findings of two research studies of Nasution and Zahrah (2014) and Witten et al. (2008) which considered two approaches: firstly, to assess the vitality of public spaces to the community members. Secondly, to explore the contributions of public spaces towards the quality of public life. In two studies, the findings with regard to the importance of public spaces were very similar. For research which assesses the vitality of public spaces to the community members, the results indicated that public spaces play significant roles in providing several benefits to different public space users namely, health, social interaction and economic value (Nasution and Zahrah, 2014:12) and the second research found the same results (Witten et al, 2008).

In terms of research that explores uses, perceptions and experiences of public spaces, Nielsen and Hansen (2007) found that public spaces provide for health benefits or physical well-being in the form of exercise (running, walking and jogging). The residents used the streets for exercising to be physically fit and this has a positive impact on their lives. Walking and running in parks and streets lowered stress and obesity levels, and this directly is related to the quality and character of the neighbourhood environment. This was confirmed by this research. Krenichyn (2006) explored women's experiences of using parks and streets in qualitative ways and found that parks and streets can be beneficial to the people who used these spaces for exercise.

As indicated previously, participants who used streets for exercise such as walking, running and jogging, found that streets are perfect places where the users can gain the physical benefits offered by streets through exercise.

According to Varga (2011), public space users found that exercising in street environments was enjoyable and took pleasure from the different senses, views and experiences they offered as opposed to being in more built environment settings.

Previous research has explored the roles of public spaces (streets) in fostering social interaction among the users of the public spaces (Kuo and Sullivan, 2001). The social component of the public spaces (streets) was categorized as spaces for interaction with friends and strangers and family. People visited the streets with their friends, family and they met with strangers and became friends. White (2012) is of the view that people often appreciate the general sociability which is offered by a place which enabled a friendly and welcoming atmosphere where they could enjoy conversations with people they did not really know. Spaces such as streets could be spaces that play significant roles in encouraging the development of community cohesion and broader social interaction.

In terms of the economic benefits, the streets in the study area played significant roles in allowing local people to engage in business. The existence of streets in Duncan Village played significant roles in allowing local residents to be self-employed through setting up fruit markets, corrugate sheet structures for spaza shops and hairdressing salons, car washes and second-hand clothes stalls. These business ventures contributed to uplifting the living standards of the residents. The results of research of UN-Habitat (2015) indicated that streets played significant roles in influencing local economic activities. Street vending is main economic driver within townships like Duncan Village. UN-Habitat (2015) indicated that street vending is characterised by selling goods at cheap price. They allow local residents to earn money daily which considered to be useful in their daily lives. This research also found that local street vendors sold their goods at affordable prices and the majority of participants were happy about this.

6.3.2 Public space users

Previous research studies found that knowing who is going to use any space within the neighbourhood plays a significant role in providing new spaces and upgrading existing spaces. All age groups (children, youth and adults) in the societies are public space users (Pollock, 2014 and CABA Space, 2011).

This research also found that all groups of people are the users (children, youth and elderly people) of public spaces in Duncan Village. People visited the streets for businesses (formal or informal business activities), exercise, (playing, walking, running, jogging) and social interaction in the study area. Most people transacted business in the streets. Research conducted by USER group (2014) indicates that people visited public spaces because they are attracted by the activities accommodated in those different types of spaces. Those activities are as follows: (i) social interaction, (ii) exercise, (iii) business opportunities (USER group, 2014). The results of USER group are similar to the findings of this research.

6.3.2.1 Children and young people

Pollock (2014) found that children constituted a large group of users of public space, but they were not included in the planning and designing of different types of public spaces. For public spaces to be more inclusive, all potential space users must be included in public participation processes so that their input will be incorporated in the planning and design phases of any public space. After school, weekends and holidays children and youth visit public spaces for exercise and playing with their friends. The PPS (2015) indicated that young people frequented public spaces in large numbers to have quality time with their friends. Public spaces such as streets play important roles in influencing social interactions among young people and children.

Streets (public spaces) are regarded as important spaces for children and young people to play and meet new friends. Greehalgh and Walpole's research (1996) found that taking children to the streets to play was one of the vital reasons for visiting the public spaces. This research also found that parents were present on the streets with their children and that enabled the researcher to conduct focus group discussions with both parents and children. Mehta (2013:17) also indicated that streets play fundamental roles in attracting children. Children in the study area visit streets in large numbers and because of security concerns they were eager to meet new friends while they were playing in the streets.

Children and young people were seen in groups or near old people in the streets in all three neighbourhoods of Duncan Village and at different times, but especially after school and during weekends. Beaney (2009) also found that young people preferred to congregate in the streets. This finding is similar to the findings of this research.

6.3.2.2 Old people

Pollock (2014) stressed that older people often visited different types of public spaces in their neighbourhood. In other words, they were attached to built environmental settings that were found in their villages, towns and cities. Several studies found that old people were involved in the planning and design of spaces through public participation processes (CABE Space 2008, PPS 2012, and UN-Habitat, 2015). Through this the majority of public spaces were planned and designed to suit and meet the needs of old people. During interview sessions, older participants indicated that large gatherings of young people made them feel afraid because they felt that young people in the study area were well known for committing crimes. Women in particular in the study area said that they had been the victims of crimes in Duncan Village. Women are classified as easy targets of criminal activities which occur in public spaces. Women seemed to have more freedom within the spaces when there were fewer men around (Pollock, 2014). Gradin (2008) found that streets were characterised by having large number of women who conducted businesses. The findings of Gradin (2008) concur with the findings of this research because in the streets there were large numbers of women engaged in business activities. This might be because the majority of women in Duncan Village do not have any formal employment and conducting businesses along streets was one of the ways of making living within a township.

The majority of older people in the streets of Duncan Village were business people, such as street vendors, spaza shop owners, car wash employees, salon owners and their employees. Some of older people visited the streets to get exercise. There were social interaction and exercise opportunities for the old people who visited the streets. The findings of the research of Pollock (2014:34) indicated that the use of public spaces by old people plays a significant role in adding value to the population through encouraging social interaction. Streets (public spaces) in townships are regarded as business hubs for local residents because one of the characteristics of a township in South Africa is the high rate of unemployment. People tend to create opportunities for themselves through starting businesses along the existing streets. Many people both the youth and older people, used the streets of Duncan Village for different types of businesses.

6.4 Preferences of residents

6.4.1 Types of spaces residents prefer

Sandalack and Uribe (2010) stressed that providing spaces which are preferred by users plays a significant role in the usage of public spaces. Stanley et al. (2012) articulated that different types of built environment settings should be developed in line with both functional requirements and aesthetic considerations preferred by end users. The users of spaces should be provided with opportunities to choose the types of public spaces they wish to be developed in their neighborhoods and to indicate how those spaces should be designed. This has a positive impact on accommodating the activities that are preferred in spaces and plays a significant role in meeting the users' needs.

The following public spaces were chosen by the respondents and they were discussed as follows:

6.4.1.1 Streets

By virtue of their very nature, streets play significant roles in fostering successful urban development which Buffalo City Metropolitan Municipality is hoping to achieve through the current Duncan Village Redevelopment Initiative. Streets have played a vital role within cities as they connect areas, promote movement of goods and people and in so doing promote trade activities, and socialisation among different people. In addition, streets have played significant roles in defining aspects such as the cultural, social, economic and political functions which contributed to the development of cities.

The idea of streets as public spaces in Duncan Village is overlooked by the municipality despite the calls from local councillors and the public. Although streets in the study area are in a bad state through lack of maintenance, they are arenas for business activities in Duncan Village. Local residents are reclaiming existing streets as available spaces and using them in a way that benefits them. The streets in the study area should be redeveloped to comprehensively recover the full usages of streets by the users so that they also can be regarded as means of social engagement. The planning and design of streets should play a significant role in fulfilling the needs of all street users regardless of age-group, gender, economic status or means of transportation.

Previous research studies indicated that streets as public spaces offered opportunities for various activities to the users of the streets and those activities range from economic to social activities (Farahani and Lozanovska, (2014); PPS, (2015); PPS, 2014; CABE Space, 2008 and Pollock, 2014).

Duncan Village has streets of different sizes. There were big streets like Douglas Smith Highway and Jabavu Street which measured 15 metres in width and small streets were 10 metres in width. Some of the areas in Duncan Village which are occupied by informal housing structures do not have streets. The participants walked distances to access streets in a very poor state of repair. The participants indicated that those streets required upgrading and maintenance or redeveloping in order to accommodate some of the activities which are preferred by local residents. UN-Habitat (2015) also found that several streets in townships are in a bad condition and some of them are not able to meet the needs of the people who live in the townships. The streets should be redesigned, upgraded and maintained regularly in order for them to play significant roles in allowing people who live in townships to enjoy the benefits offered by streets.

Talen (2000) stressed that streets are regarded as spaces for social interaction among the local residents and this is also applies to Duncan Village community members. They are spaces where the residents encounter their friends and strangers. Streets are business hubs for the local people of Duncan Village.

6.4.1.2 Public parks

It is evident that once it is provided, a public park is of a strategic importance for social, economic and environmental development within townships such as Duncan Village. Provision of green spaces and water in a park can play a role in reducing stress, heart attacks and combating obesity which affects many people. As indicated earlier, the park allows the users to utilize it for exercise. Moreover, parks play an important role in promoting social interactions among different people. The park should have a natural element as one of its essential features to attract users. Trees and landscaped areas should be provided to make it a comfortable space for recreation and relaxation.

The park proposed for Duncan Village may be an important political and tourist destination.

As indicated by Stanley et al. (2012), parks offer spaces for social and recreational activities. This research found that the residents of Duncan Village believed that the park has the potential for offering a variety of opportunities to its users.

The local people of Duncan Village visit nearby parks such as Ebuhlanti Park for enjoyment and social encounters with other people. The public park offers several benefits to the local people in terms of economic, social and environmental benefits. Other research also found that parks are important to its users. For example, Chiesura (2004) is of the view that park play a significant role in providing a restorative function to the natural environment. Parks have a positive influence on the psychological and mental health of its users. The use of urban parks and forests, play a significant role in offering stress-reduction benefits and having a positive effect on the mental health of the users. According to CABA Space (2008), apart from the aesthetic, psychological and health benefits, parks can play major role in offering social benefits to the park users. Chiesura (2004) is of the view that nature can contribute immensely in the use of outdoor spaces, through increasing social integration and interaction among the local residents. Nasution and Zahrah (2014) hold that the presence of trees and grass in outdoors common spaces may play a vital role in encouraging the development of social ties among the residents. Sherer (2003) says that greenery assists local residents to relax and renew themselves thus reducing aggression. Natural environments can be viewed as a realm of active experience that play important roles in offering a sense of challenge, privacy and confidence, aesthetic and historical stability. Apart from social and psychological benefits articulated above, the park has the ability to foster economic benefits for local residents. This can be achieved when the park offers spaces for conducting business such as when local residents are allowed to bring their goods to sell to park visitors. According to Nasution and Zahrah (2014), air purification which is normally done by trees, can play a significant role in influencing the reduction of costs of pollution mitigation and prevention measures. Moreover, aesthetic, historical and recreational principles of public parks play significant roles in increasing the attractiveness of the urban area and encourage the urban area to be a tourist destination, by creating employment and revenues among the local residents. Chiesura (2004) found that natural elements such as trees or water contributed to raising property values, and increasing tax revenues. Apart from these positive effects, Chiesura (2004) found that public parks could have a negative role when they were linked to residents' feelings of insecurity associated with vandalism, and fear of crime in empty places.

6.4.1.3 Plaza

The plaza was a new concept to the majority of the participants in the study, but through the use of examples and explanations from those few participants who had encountered it before it was selected as their preferred space to be provided in the study area.

A plaza can be viewed as a shopping centre where a number of retail outlets are established. As such, plazas can be drivers of economic development through employment creation and also because they offer opportunities for people to own their businesses. A plaza also has the potential to offer space for social interactions for those who visit it. The economic and social benefits associated with the establishment of a plaza made it suitable for consideration in this study.

According to Cole et al. (2012:13), a plaza is space that plays a significant role in attracting people to gather together and enjoy the benefits which are accommodated it. Don (2003:45) stressed that plazas are described as spaces which are well-designed, planned and structured neighbourhoods that viewed as economic drivers within any society.

Plaza is an Italian word, and many participants in Duncan Village are from rural areas of the former Ciskei and Transkei, so they were not familiar with this type of public space. Those who had encountered a plaza through visiting big cities in South Africa and they were aware of its potential benefits. Montero (2001:16) found that plazas play fundamental roles in influencing the liveability and societal interaction among users and that they promote physical and emotional comfort to the people. More importantly, the plaza can create employment opportunities for the residents of Duncan Village. Montero's (2001:67) findings were explained to Duncan Village residents who were not familiar with plaza so that they could understand the benefits of a plaza if it were developed in the study area.

6.4.1.4 Sports complex

Previous research has indicated that provision of infrastructure that supports sporting activities can contribute significantly in reducing the number of youth who conduct criminal activities. Thus the provision of a sports complex in Duncan Village was seen as necessary since there is a high incidence of criminal activities within the three neighborhoods of Duncan Village. Sports activities are can be utilised to deter youth from committing crimes. Hoye et al (2015:34) defined a sports complex as a dwelling unit for various codes of sporting activities within the

neighbourhood. This means that a sports complex accommodates a number of sports activities under one roof.

The research found that the residents of Duncan Village need a formal sports complex which accommodates all codes of sports to be developed within the study area. The participants further revealed that sports activities can play significant roles in keeping the youth from abusing drugs. Drug abuse is one of the challenges which face Duncan Village and it also contributes to the high crime rate. The majority of the participants indicated that the provision of a sports complex will be beneficial to the society of Duncan Village. The residents indicated that there are many boxers from Duncan Village who are successful so providing this sports complex will be a motivation to the youth to take sports seriously. Sports also promote social cohesion among different people.

Sports activities play significant roles in promoting social, economic and spatial development. Thorpe et al (2014) emphasized the significance of balanced physical activity on a regular basis. By being involved in sports activities, people tend to be physically and mentally healthy.

6.4.2 Preferred locations of types of public spaces

Previous research has revealed that location of public spaces influenced its usage by the community (Sokol and Dritan, 2012 and Kellet and Rofe, 2009). The travelling distance to access the spaces plays a significant role in those spaces being utilised by different users (Rofe, 2012). In this research study, it was found that preferred public spaces should be situated in close proximity to their three neighbourhoods.

The locations of all preferred public spaces were identified by the participants. The map of Duncan Village was printed on an A1-sized sheet to ensure that all interviewed participants could see the location of the sites. The site for the park had been demarcated in 2008 and it is a grave yard of Alcott Gwentsha the former leader of ANC youth league. The site measured more than 5ha in extent. The site is big enough to accommodate all the activities preferred by the participants. The majority of the participants were aware of the site where the public park would be developed. They knew this through public participation conducted during the period of compiling the local spatial development framework for Duncan Village in 2008.

The participants indicated that the plaza should be developed at central point of intersection of the three neighbourhoods of Duncan Village. This central location is the Jabavu Node where

there are existing community facilities such as a post office, a surgery, shops, and a clinic. There is a parcel of land which is occupied by informal housing structures and the participants indicated that there might be a relocation of those households.

The participants also indicated that the sports complex should be accommodated next to Gompo ground which is found in Duncan Village Central. The map 3.1 above indicates the location of all the preferred public spaces. In this study, the location of public spaces influences the usage of public spaces by different users.

6.4.3 Activities preferred by space users

Even though grading of preferred activities differs among the three neighbourhoods of Duncan Village, the preferred activities to be accommodated in the aspiration spaces were largely oriented on economic and social development, exercising (running, walking and jogging), recreation and relaxation. The users singled out economic development in spaces as the first priority because they believed that public spaces have the potential to uplift their daily lives through influencing business activities and social interactions.

Gehl (1998) identifies various types of activities that should be accommodated in different types of public spaces. These are (i) necessary activities, (ii) optional activities, (iii) social activities. These activities should be able to meet the needs of the public space users.

The activities and uses which are offered by different types of public spaces also play significant roles in the different types of public spaces mentioned above. The research identified different types of the activities that should be accommodated in the preferred public spaces (public park, plaza, sport complex and streets). The following activities should be accommodated in the aspirational public spaces: businesses (formal or informal business activities), exercise, playing, walking, running, jogging and social interaction in order to meet local people's needs. The park which is needed by community members should allow people to exercise (running, jogging and walking) in order to promote physical well-being and mental health. The business activities should be accommodated within the public park since business activities (both formal and informal business activities) play significant roles in the reduction of poverty in townships like Duncan Village. The park should be a space for social interactions. According to Chiesura (2004) parks play significant roles in promoting the use of outdoor spaces. Through this social integration and interaction will be increased among the local residents. Nasution and Zahrah

(2014) are of the view that the presence of trees and grass in public parks plays a vital role in encouraging the development of social ties among the residents.

The streets are the main public spaces currently found in Duncan Village but they are in a dire state. Currently the streets serve as playgrounds for children, gathering points and business hubs for both formal and informal business activities. Talen (2000) found that streets play significant roles in fostering a clear social purpose within society. Mehta (2013) found that streets are seen as spaces that have the potential to allow people to interact and serve as places for stationary activities that attract local residents to visit them. Through influencing the chance of interactions, streets play significant roles in fostering a sense of community among the residents.

The plaza was chosen by the participants because it can provide enjoyment and economic benefits to the local community members. In my opinion, it was a good idea for the participants to consider a plaza as one of their preferred spaces because plazas are well known for their ability to attract private investors into the study area. There will be employment opportunities among the local residents and people will derive a reliable monthly income. Montero (2001) stressed that plazas play significant roles in promoting economic activities within the neighborhood. This is one of the activities needed most by the residents of Duncan Village because the township is characterized by a high rate of poverty. The plaza should be developed in such a way that more shops will be accommodated in order to offer employment to local residents. A few participants who knew about plazas described plazas as spaces for economic activities and social interactions for the users. Cole et al (2012) described the plaza as a built environment setting that catches the attention of local residents to come together for enjoyment and also plays a significant role in promoting economic development within a neighbourhood.

In most cases, the sports complex accommodates all sporting codes such as boxing, athletics, soccer, netball, hockey, cricket, swimming, and volley ball and this allows the youth of townships to be attracted to several sport activities. The sporting activities have the potential to attract youth to the community facility where they will be engaged in different types of activities mentioned above. One of the problems facing Duncan Village is drug abuse among youth. The provision of a sports complex was seen as one of strategies that recommended by the participants to minimize the incidence of drug abuse among the youth. The sports complex has spaces where local residents are allowed to sell their goods during sport tournaments. The sports complex would be able to promote local economic development within Duncan Village.

Valle (2013) found that sporting activities can play important roles in economic development within an area. He further indicated that local people should be allowed to conduct business that supported by sports.

6.4.4 Planning and designing of public spaces

Proper planning and designing of different types of public spaces is one of the preferences of the local community members. The design and planning of streets like Douglas Smith Highway and Jabavu Street appeared to be good but there was less consideration given to street vending along those streets and business activities appeared to be the first priority for the residents of Duncan Village. There are no shelters or planted trees along the streets to address the harsh climatic conditions of the study area. Activities such as business activities that take place along the streets are not necessarily considered in the planning and designing phases of the streets.

This discussion indicates that high temperatures were identified by users as they sometimes leave the streets during the day. This shows some gaps in terms of the municipal planning and design processes. Undeniably for the street users, the planning and design of the streets were not impressive since there are several gaps with regard to adequately addressing factors (such as climate and security) that affect the functionality of streets.

In addition to good design, the users of public spaces require good quality facilities and relaxation services such as toilets, shops, sports and recreational facilities as indicated in the drawings of park and plaza in Chapter 5. These drawings are in page 154 and 155 respectively.

Gehl (2010) and Francis et al (2012) revealed that design and planning had implications on how different types of public spaces can be utilised within the community. They further indicated that well-designed and planned public spaces had great potential for attracting a large number of people. Poor planning and designing of public spaces could affect the functionality of public spaces negatively. For public spaces to function properly in the study area, urban designers and architects should be aware of the importance of good design, and accommodate all preferred activities in the different spaces.

Apart from the streets, Duncan Village currently does not have any planned and designed public space. The participants indicated that the existing streets required redevelopment, maintenance and upgrading. The areas where a plaza and sport complex were going to be developed were occupied by informal housing structures and those areas needed proper planning after the

relocation of those households was implemented. Well designed public spaces play significant roles in allowing all users of public spaces to meet their needs. They also promote a sense of community among local residents. Some existing streets were too narrow because informal housing structures occupied some of the land which was earmarked for streets. Pollock (2014) found that well designed public spaces had the potential to attract many public space users and to promote business opportunities among local residents.

6.5 Conclusion

The discussion of the research results shows how the users of streets in Duncan Village perceive public spaces. The participants were realistically positive about the potential activities offered by streets and that led to how the participants viewed public spaces. The participants also raised the issue of security concerns when they visited public spaces. In terms of the importance of public spaces, the participants indicated that streets play important roles in offering the following activities (i) business opportunities (formal and informal business activities), (ii) spaces for social interaction and gathering, and (iii) physical exercise (running, walking and jogging). The users of the streets were children, youth and older people. The following public spaces were preferred by participants to be developed in Duncan Village: park, plaza, and sports complex and the redevelopment of the streets. The locations of aspirational public spaces were indicated in the maps 3.1 in Chapter 3. The following factors were identified as playing major roles in affecting the functionality of public spaces (i) security, (ii) management, (iii) accessibility, (iv) ownership, (iv) planning and the design of public spaces.

Chapter 7 which follows will provide the conclusion of the research study and consider the planning and designing implications for the study area.

7 CHAPTER SEVEN: CONCLUSION

7.1 Introduction

The chapter presents the conclusion of the research study. The chapter further indicates how the research objectives have been achieved and also centers on contributions made by this research to the theory and future planning and designing of different types of public spaces that can meet local residents' needs and preferences in disadvantaged townships.

This research is aimed at investigating the perceptions, experiences, and preferences of local residents in Duncan village towards different types and configurations of public spaces that would be able to fulfill a range of local needs in the area. As indicated in Chapter 1, the objectives of the research are to (i) to identify the factors that affect the functionality of existing spaces as perceived by the residents (ii) to identify the relationship between the activities taking place within the spaces and how it is experienced (iii) to determine the preferences of residents in terms of the functions and types of spaces in Duncan Village.

7.2 Summary of the findings

The boundary or sphere of operation of the research was the perceptions, preferences and experiences of local residents of Duncan Village towards different types of public space. The research was prompted by the need to identify different types of public spaces that are preferred by local community members and where should be developed; how local residents perceived and experienced public spaces through identifying factors that affect the functionality of different types of public spaces; what type of activities should be accommodated in different types of public spaces in order to meet the needs and preferences of local residents and who preferred them. The idea behind investigating all these factors was to ensure that preferred spaces will be provided in the study area and also to accommodate activities that preferred by the space users so that they can meet their needs.

The residents identified different types of public spaces that they want to be developed in the study area and different types of activities to be accommodated in those public settings.

Through this research the importance of public spaces to disadvantaged townships such as Duncan Village is to articulate the key findings for each objective. The following paragraphs offer succinct statements of the research presented from the three objectives of the study:

(a) To identify the factors that affect the functionality of existing spaces as perceived by the residents

It is revealed by the study that there are several factors that affect the functionality of the different types of public spaces. In case of the study area, streets were main existing public spaces. Accessibility, management, ownership, human comfort (security and climatic conditions), were revealed as factors that affect the functionality of streets (public spaces) in the study area.

In terms of accessibility, the study revealed that the public spaces (streets) in the study area are accessible to every member of the community. Some areas with dense informal housing structures have no streets so people have to walk for a distance to access streets.

In terms of crime, the study found that there is high crime rate in Duncan Village especially in the streets, the only existing public spaces in the study area. The high crime rate has been seen as one of the factors that affects the usage and functionality of public spaces. The study found that women and children are affected by crime when they visited public spaces (streets).

In terms of management, the research found that there is poor management of the streets that are utilised as major public spaces in Duncan Village. The research further found that poor management of public spaces plays a major role in making them unsafe. The research revealed that there was litter which occupied every street in the study. Failure to clean the spaces was identified by the research as one of the aspects that contributed to the poor management of existing streets. There is lack of security in the streets and this has found by this research as poor management. These factors characterized poor management of streets in the study area. In a nutshell, management of public spaces in Duncan Village affects the functionality of existing streets (spaces). If there is poor management in public spaces the usage of public spaces will be also affected and the settings will be unused by the public.

With regard to climatic conditions, the research revealed that Duncan Village is characterized by having harsh climatic conditions. Climatic conditions were identified as one of the factors that affect the functionality of the streets in the study area. High temperatures are common in the study area. Settlement sprawl in Duncan Village also contributed to increasing high temperatures because green spaces were lost. The research study also found that along the

streets there were no planted trees or shelters that could provide shade for the users of the streets.

In terms of ownership, the study indicated that almost the entire settlement is owned by the Buffalo City Metropolitan Municipality. The streets that are currently used as major public spaces in the study area are owned by the municipality. The parcels of land where local residents wanted the sport complex, plaza and park to be developed are owned by the municipality.

(b) To determine the preferences of residents in terms of the functions and types of spaces in Duncan Village

The research found that the residents of Duncan Village preferred the following spaces to be provided in the study area: (i) a park (ii) a plaza (iii) a sports complex and existing streets need to be redeveloped.

Locations for different types of public spaces preferred by the Duncan Village community members were identified. In choosing the location, the participants indicated that they preferred public spaces to be in close proximity to the three neighbourhoods of Duncan Village.

In terms of the location of the park, the study indicated that the park should be located at the grave site of ANC Youth founder Alcott Gwentsha who died in 1966. The parcel of land where the park is going to be developed is located between Ziphunzana Bypass and Douglas Smit Highway. With regard to the development of a park, the study found that the park should accommodate the following: a braai area, a playground and sports area, an information centre, a green area, a pond, toilets, an entertainment area, and a swimming pool with seats and benches. The schematic design of the park is found in Chapter 5, page 144.

The research found that residents needed well-designed and planned streets to meet their needs and preferences. There is one major street (Douglas Smith Highway) which accommodates several activities. This street is identified as well designed but there is a lack of maintenance from the Buffalo City Metropolitan Municipality. Other parts of three neighbourhoods have informal housing structures and there are no streets that can offer public life. Other well-planned parts of the three neighbourhoods have well-defined streets that play significant roles in meeting local residents' needs and preferences.

Proper planning and designing of public spaces was identified as one of the preferences of local residents. With regard to planning and designing public spaces, the research found that the preferences for public spaces differs between generations (children, young adults and adults), so different types of public spaces should be planned and designed in a manner that they will incorporate the needs and desires of all generations of public space users. The study further found that there are currently no well-developed gathering spaces in the study area and this affects access to well-developed spaces for the residents of Duncan Village.

(c) To identify the relationship between the activities taking place within the spaces and how it is experienced

The study revealed that there are a number of activities that are preferred by the local residents of Duncan Village. The research indicated that local residents of Duncan Village required following activities: relaxation, walking, running, jogging, playing, socializing, recreational and commercial activities.

The study indicated that types of public spaces that accommodate the above-mentioned activities should be provided with infrastructure to support it.

The research revealed different types of public spaces would accommodate the above-mentioned activities. They are as follows: a sport complex, plazas, a park and streets. The study found that older adults (both males and females) in the study utilized streets especially Douglas Smith Highway and Jabavu street for relaxation, exercise (walking, running and jogging), commercial activities (both formal and informal trading activities) and as gathering points where they socialized and met new people. The research revealed that streets are also business hubs of Duncan Village Township. Children used streets as playgrounds. The study further indicated that the children relaxed and played in the streets after school. A number of business activities, such as street vending, car washes, hair salons, and motor repair workshops plied their trade on the streets.

For other types of public spaces that preferred by local residents, namely, sport complex, plaza and public park, the public space users indicated that they should be designed and planned in a manner in which all people's needs and preferences are met. The study found that the public park should offer the following activities: recreational activities, exercising (walking, running,

jogging), seating, commercial activities (either formal or informal trading activities), and social activities. The research found that the public park should accommodate all public space users regardless of age group or gender.

The research revealed that the plaza should be able to accommodate the following activities: walking, seating, commercial activities and socializing. The research found that adults required the plaza to be developed because they thought that it would provide employment, socializing, and exercising opportunities to the local residents. Children and young adults required the plaza for playing, exercising and socialising.

Streets are only existing public spaces in Duncan Village. Although the streets offer all the activities that should be provided by other public spaces, the study revealed that several streets in the study area are in dire state of neglect and require the urgent attention of Buffalo City Metropolitan Municipality. The research revealed that the streets accommodated all different public space users (children, young adults and adults). Preferred activities in the streets are playing, sitting, exercise (walking, running, jogging), socializing, relaxation, and business activities.

7.3 The implications of the research

This research is characterized by both design and planning implications of different types of public spaces that are preferred by local residents of Duncan Village. The table 7.1 below provides planning and design implications related to the different research variables identified in the study. One important subject identified in the table 7.1 below is that the same planning and design implication is associated with different variables.

Table 7-1: Design and planning implications

Key area of research	Research variable	Planning and design implications
Preferences	Types of public spaces preferred by local residents <ul style="list-style-type: none"> • Park • Plaza • Streets • Sport facility 	<ul style="list-style-type: none"> • There should be provision of well planned and designed quality public spaces that are preferred by local residents • During the periods of providing preferred spaces different types of activities that are preferred by local people must be incorporated. • When planning and design preferred spaces take into consideration all factors that affect the functionality of preferred different types of public spaces
Preferences	Uses and activities preferred by local residents <ul style="list-style-type: none"> • Playing • Sitting 	<ul style="list-style-type: none"> • During the periods of providing preferred spaces different types of activities that are preferred by local people must be incorporated. • Preferred different types of public spaces should be provided and must be able to accommodate different

	<ul style="list-style-type: none"> • Exercise (walking, running, jogging) • Relaxation / leisure • Recreational activities • Social activities • Business activities (formal and informal trading activities) 	<p>types of activities that preferred by local community members.</p> <ul style="list-style-type: none"> • In order to meet residents' needs, there should be provision of mixed use areas in both plaza and park that harmonize residential areas with commercial, recreational and other activities that significant play role in encouraging Duncan Village to be liveable township.
Preferences	Local residents' needs	<ul style="list-style-type: none"> • There should be provision of different types of public spaces that are preferred by local residents and this can allow local residents' needs and preferences to be met. • Address public space users' needs and preferences through findings of the research and this could guide planners and designers' intentions for design and planning different types of public spaces.
Experiences	Security	<ul style="list-style-type: none"> • The design and planning for quality public spaces should take into consideration the Crime Prevention through Environmental Design (CPTED) strategies. Promote large number of police surveillance • The planning and design of different types of public spaces should be done in a manner that reduces violence and crime rates whilst at the same time building trust within communities. • The planning and design of different types of public spaces must be conducted in a way that there will be presence of more public space users in different types of public spaces
Experiences	Climatic condition	<ul style="list-style-type: none"> • When planning and design of preferred public spaces bioclimatic design strategies should be taken into consideration within the public spaces • When providing preferred different spaces, vegetated species should taken into consideration in order to provide enough shade and relief from the intense heat and sun in public spaces • There should be a development of an analysis of the settings' climatic conditions in relationship to airflow, sun path and its radiation effects, vegetation and topography in order to understand how it affects design and planning of public spaces. This also could be done through interdisciplinary teams in the initial stages of the planning and designing process.
Experiences	Accessibility	<ul style="list-style-type: none"> • During the process of providing different types of public spaces accessibility should adequately incorporated in order to allow all users to visit the preferred spaces regardless of age group, income status and gender • When providing preferred public spaces, preferred activities should be accommodated in order for the spaces to be used by residents.

		<ul style="list-style-type: none"> • Preferred public spaces should be located close proximity to the homes of users. • Preferred public spaces should be planned and designed in a manner that they accommodate both able body and disabled people.
Experiences	Management	<ul style="list-style-type: none"> • Once the preferred public spaces provided, there should be adequate maintenance of the public space • The space users and municipality must come with strategies that can be utilised in sourcing financial investments for public space management • The municipality (BCMM) should be enforcing by-laws, policies and legislative framework that promote public space management.
Preferences	Urban planning and design	<ul style="list-style-type: none"> • Preferred public spaces should be planned and designed in line with the contextual and cultural situations and ecological system of Duncan Village. • During planning and designing of different types of public spaces, allow landscaping to be incorporated into settings. • All public space users should be given opportunities to be involved in planning and design phases of preferred public spaces. • The planning and design of preferred spaces should play significant roles in providing memorable experiences for all public space users who will be visiting those different types of public spaces. This can play a significant role in influencing a sense of community and ownership of public spaces among the local community members. • Planning and design of preferred spaces should be playing fundamental roles in promoting the concept of sense of place and territoriality in order to encourage social and security conditions which are offered by different types of public spaces.
Perceptions	Local residents' perception of public spaces	<ul style="list-style-type: none"> • The preferred public spaces should be well planned and designed in order to meet residents' needs. • The preferred public spaces should incorporate different types of activities that are preferred by local people in order for them to be used by residents and also meet residents' needs.
Experiences	Users of public spaces	<ul style="list-style-type: none"> • When providing preferred public spaces, preferred activities should be accommodated in order for the spaces to be used by residents. • The preferred public spaces should incorporate different types of activities that are preferred by local people in order for them to be used by residents and also meet residents' needs. • The design and planning for quality public spaces should take into consideration the Crime Prevention through Environmental Design (CPTED) strategies. Promote large number of police surveillance • The preferred spaces must be planned and designed in a manner that reduces violence and crime rates whilst at the same time building trust within communities. • The preferred different types of public spaces should

		<p>be planned and designed in a way that there will be presence of more public space users in these spaces.</p> <ul style="list-style-type: none"> • Preferred public spaces should be planned and designed in a manner that they accommodate both able body and disabled people.
--	--	--

The implications of the study offered in this section should be not be seen as rigid solutions for the development, planning and design of different types of public spaces that are preferred by local residents of Duncan Village. Instead they are offered as wide-ranging design and planning recommendations that are developed in line with the research findings. There are specific environmental conditions in Duncan Village, therefore planning and design recommendations for different types of public spaces that are preferred by local residents should take account of these environmental conditions. The implications for the study must play significant roles in encouraging the economic, functional, physical, social, security and environmental benefits to be incorporated during the planning and designing of different types of public spaces. The study implications can be enriched by a further research. At that point, these implications can be regarded as experimental approaches. The study implications can contribute immensely to allowing the different types of public spaces required by local residents to play significant roles in ensuring that the needs and preferences of local residents are met. The planning and design implications play a fundamental role in focusing town planners’ and designers’ responsibilities towards creating quality public spaces that are successful in attracting users to them.

7.4 Future research

There is insufficient research on the perceptions, preferences and experiences of local residents towards different types of public spaces in disadvantaged townships in South Africa such as Duncan Village near East London. Further research in line with this field of study is required. This will promote valuable comparisons with this research that can potentially play a significant role in meeting local people’s needs and preferences for the provision of well-designed public spaces in the sadly-neglected township areas.

Information on the importance of public spaces in the jurisdiction area of Buffalo City Municipality is lacking (Duncan Village Business Plan, 2013). This results in a narrow and imperfect knowledge of public spaces and their roles in the promotion of activities that are offered by different types of public spaces. The study conducted by Berg and Oberg, (2005), about public spaces in the City of East London has not been extensive and comprehensive. As a result, this research needs to play a significant role in addressing these gaps.

7.5 Closing remarks

This is a wider research study which is concerned about the community perceptions, preferences and experiences towards different types of public spaces in the disadvantaged township of Duncan Village. The study mapped out space user perceptions with regard to existing streets and also as part of what the users think about factors such as management, climatic conditions, design and planning, safety and security. The data collected for the research also explored the preferences of residents in terms of what types of spaces should be provided, how they should be designed, what type of activities should be accommodated in such spaces and where these spaces should be developed. The experiences of residents were mostly based on the importance of public spaces to the community of Duncan Village. Streets in the study area provide for commercial activities which were identified as first priority in terms of activities to be offered by aspirational public spaces. In addition, the streets also offer spaces for the following activities: social interaction, exercising (running, walking, jogging). More importantly, the research recommends creating different types of public spaces that play significant roles in achieving local residents' needs. All space users should be consulted during the planning and design phases in order to incorporate the activities needed by users and the users' opinions about the design of public spaces. All factors that affect the functionality of public spaces should be adequately addressed in the planning and designing phases.

8 REFERENCES

1. Aberdeen City Council, (2010): Aberdeen Open Space Audit 2010 and Appendices.
2. Alayón-Gamboa, J. A. and Gurri-García, F. D. (2008). Home Garden Production and Energetic Sustainability in Calakmul, Campeche, Mexico, *Human Ecology* 36:295-307
3. Alex Y. Lo and C.Y. Jim (2010): Differential community effects on perception and use of urban greenspaces. Research School of Social Sciences, The Australian National University, Canberra, ACT 0200, Australia
4. Al-Hagla, K. (2008): Towards a sustainable neighborhood: The role of open spaces. *International Journal of Architectural Research: Arch Net-IJAR*, 2(2), 162-177.
5. Astrid Kusumowidagdoa, Agus Sacharib, Pribadi Widodob (2014): Visitors' Perception towards Public Space in Shopping Center in the Creation Sense of Place.
6. Barber, A., (2005): Green Future: A study of the management of multifunctional urban green spaces in England, Green Space Forum, Reading.
7. Bertolini, L. (1999): Spatial Development Patterns and Public Transport: The Application of an Analytical Model in the Netherlands. *Planning Practice and Research* 14(2): 199-210.
8. Binqing Zhai (2014): Definition and Concept of urban square in view of urban spaces and buildings. Department of Architecture, Xi'an Jiaotong University, PR China
9. Bratina Jurković, N. (2014): Perception, experience and the use of public urban spaces by residents of urban neighbourhoods. *Urbani izziv*, 25(1), pp. 107–125. DOI: 10.5379/urbani-izziv-en-2014-25-01-003
10. Buffalo City Metropolitan Municipality Integrated Development Plan (IDP) 2016/17
11. Buffalo City Metropolitan Municipality Spatial Development Framework, (SDF), 2014
12. Byrne, J. and Wolch, J. (2009): Nature, Race, and Parks: Past Research and Future Directions for Geographic Research. *Progress in Human Geography* 33(6): 743-765.
13. CABI Space (2004): Green space strategies. A good practice guide
14. CABI Space (2008): Open space strategies: Best practice guidance
15. CABI Space (2010): Community green: using local spaces to tackle inequality and improve health
16. CABI Space (2011): Public Space Lessons: Designing and Planning for Play. London: CABI.
17. Carmona, M. (2010b). "Contemporary Public Space, Part Two: Classification." *Journal of Urban Design* 15 (2): 157– 173.
18. Carmona, M. and C. de Magalhães (2007): Local Environmental Quality: A New View on Measurement, London, DCLG.

19. Carmona, M., (2010a): Contemporary public space: Critique and classification, Part One: Critique. *Journal of Urban Design*, Vol. 15, 123–148. Carmona, M., 2010b, Contemporary public space, Part
20. Carmona, M., Heath T, & Tiesdall, S. (2010): *Public Spaces Urban Spaces: The dimensions of Urban Design*, Oxford, and Architectural Press.
21. Carmona, M., Heath, T. and Tiesdell, S. (2003): *Public Place Urban Spaces: The Dimensions of Urban Design*. Burlington: Architectural Press.
22. Carr, S., Francis, M., Rivlin, L. and Stone, A. (1992): *Public Space*. Cambridge: Cambridge University Press.
23. Cassidy T. (1997): *Environmental Psychology: Behaviour and Experience in Context: Contemporary psychology series*
24. Chiesura A (2003): *The role of urban parks for the sustainable city*: Department of Leisure, Tourism and Environment, Wageningen University Generaal Foulkweg 13, Wageningen 6703 BJ, The Netherlands
25. Crowe T.D (2000): *Crime Prevention Through Environmental Design: Applications of Architectural Design and Space Management Concepts*
26. CSIR, 2005: *Guidelines For Human Settlement Planning And Design*, Pretoria: Published by CSIR Building and Construction Technology.
27. Dooling, S, Simon, G and Yocom, K (2006): Place-based urban ecology: a century of park planning in Seattle. *Urban Ecosystem* 9, 299-321.
28. Duncan Village Business Plan, 2013
29. Duncan Village Local Spatial Development Framework, (LSDF), 2008
30. Francis, J., Giles-Corti, B., Wood, L., & Knuiaman, M. (2012): Creating sense of community: The role of public space. *Journal of Environmental Psychology*, 32(4), 401-409. Doi: 10.1016/j.jenvp.2012.07.002
31. Gehl (1996): *Public Spaces – Public Life – for the 21st century*
32. Gehl (2011): *Life Between Buildings: Using Public Spaces*
33. Gehl, J. (2010): *Cities for People*. London: Island Press.
34. Gencel and Velibeyoglu (2006): *Reconsidering the Planning and Design of Urban Public Spaces in the Information Age: Opportunities & Challenges*
35. Givoni B. (1998), *Climate Consideration in Building and Urban Design*, Van Nostrand Reinhold, p. 244- 296.
36. Gary Minkley (2004): *History of Duncan Village*. The Fort Hare Institute of Social and Economic Research (FHISER).
37. Goodsell (2003): *Measuring Public Space: The star model*

38. Harnick, P. (2003): *The Excellence City Park System: What Makes it Great and How to Get There*. The Trust for Public Land Publications: Washington DC.
39. Horner MW (2004): *Spatial Dimensions of Urban Commuting: A Review of Major Issues and Their Implications for Future Geographic Research*
40. Huta, Sokol & Mico, Dritan (2012): *The Key Role of Public Spaces and Mobility in the Process of Urban Regeneration in Developing Metropolis. Public Space in Tirana City*
41. Jacobs, A and Appleyard, D. (1987): "Toward an Urban Design Manifesto" - in Le Gates, R and Stout, F (eds) 1996. *The City Reader*. Routledge. New York pp 165-175.
42. Jay, M and Schraml, U (2009): *Understanding the role of urban forests for migrants: uses, perception and integrative potential. Urban Forestry and Urban Greening 8, 283-294.*
43. Jon Kellett and Dr Matthew W. Rofe (2009): *Creating Active Communities: How Can Open and Public Spaces in Urban and Suburban Environments Support Active Living?*School of Natural and Built Environments, University of South Australia
44. Jorgensen B. S. and Stedman RC (2001): *Sense of place as an attitude: Lakeshore owners attitudes toward their properties*
45. Kamphuis BM, Van Lenthe F, Giskes K, Huisman M, Brug J & Mackenbach JP (2009): *Socioeconomic differences in lack of recreational walking among older adults: the role of neighbourhood and individual factors*
46. Karina Landman (2004): *Gated Communities in South Africa: Comparison of four case studies in Gauteng*
47. Katalin VEDRÉDI (2014): *Social Perception of Public Space Developments - The Case of Saint Stephen Square, Szeged, Hungary: University of Szeged, Hungary, Department of Economic and Social Geography,*
48. Khalilah Zakariya, Nor Zalina Harun, Mazlina Mansor (2014): *Spatial Characteristics of Urban Square and Sociability: A review of the City Square, Melbourne. Department of Landscape Architecture, International Islamic University Malaysia, 50728 Kuala Lumpur, Malaysia*
49. Kohn, M. (2004): *Brave New Neighbourhoods: The Privatization of Public Space*, London, Routledge.
50. Landman, K. (2006): *Privatising public space in post-apartheid South African cities through neighbourhood enclosures. GeoJournal, 66 (1), p. 133-146*
51. Lang, J. (1994). *Urban Design: The American Experience*, New York, Van Nostrand Reinold Company.

52. Leila Mahmoudi Farahani, Mirjana Lozanovska (2014): A framework for exploring the sense of community and social life in residential environments
53. Lofland, L. (1990): *The Public Realm: Exploring the City's Quintessential Social Territory*. New Jersey: Aldine Transaction.
54. Loukaitou-Sideris A. (2005): Is it safe to walk here? Design and policy responses to women's fear of victimization in public places. In *Research on women's issues in transportation*, Vol. 2, Conference Proceedings 35, 102-112. Washington, DC: Transportation Research Board.
55. Low, S. and N. Smith (eds) (2006): *The Politics of Public Space*, London, Routledge.
56. Low, S., Teplin, D., and Scheld, S. (2005): *Rethinking Urban Parks: Public Space and Cultural Diversity*. Austin: University of Texas Press.
57. Lynch, Kevin. 1960: *The image of the city*. Cambridge Mass.: Technology Press.
58. Madanipour, A. (2003): *Public and Private Spaces of the City*, London, Routledge
59. Marcus, Clare Cooper, and Carolyn Francis (1998): *People Places: Design Guidelines for Urban Open Space*. 2nd ed. New York: Van Nostrand Reinhold.
60. Maruani, T. & Amit-Cohen, I (2007): Open space planning models: A review of approaches and methods. *Landscape and Urban Planning* 81 (2007) 1–13, 20 February, Issue 81, pp. 1-13.
61. Maslow, A. H. (1968): *Toward a Psychology of Being*. New York: D. Van Nostrand Company
62. Mathew Carmona, Claudio de Magalhães and Leo Hammond (2008): *Public Space: The management dimension*.
63. Mehta, V. (2007): Lively streets: Determining environmental characteristics to support social behavior. *Journal of Planning Education and Research*, 27(2), 165-187. doi: 10.1177/0739456x07307947
64. Mehta, V. (2013): *The street: a quintessential social public space*. Abingdon, Oxon; New York, NY: Routledge.
65. Merz, J. and T. Rathjen (2009), Time and income poverty - An interdependent multidimensional poverty approach with German time use diary data, FFB-Discussion paper, 79, Lüneburg.
66. Mitchell, Don. (2003): *The Right to the City: Social Justice and the Fight for Public Space*. London: Guilford Press.
67. Montero, I M (2001): Factors that influence the social life and vitality of public open spaces in Maracaibo, Venezuela. Faculty of the Virginia Polytechnic Institute and State University

68. Ndaba, D. N. and Landman, K. (2014): Revitalising the public open spaces in the CDB of Pietermaritzburg to immortalize a Great Place
69. Neal, Z. (2009): Locating Public Space. In: Orum, A. and Neal, Z. (eds.), *Common Ground? Readings and Reflections on Public Space*. London: Routledge.
70. Neal, Z. (2010): Seeking Common Ground: Three Perspectives on Public Space. *Proceedings of the Institution of Civil Engineers*. 15/1/2010.
71. Pasaogullari, N. and Doratali, N. (2004): Measuring Accessibility and Utilization of Public Spaces in Famagusta. *Cities* 21(3): 225-232.
72. Paul M. Sherer (2003): *The Benefits of Parks: Why America Needs More City Parks and Open Space*
73. Payne, L. L., Mowen, A. J. & Orsega-Smith, E., (2002): An examination of park preferences and behaviours among urban residents: the role of location, race and age. *Leisure Sciences*, Issue 24, pp. 181-198.
74. Peter Moss and Pat Petrie (2002): *From Children's Services to Children's Spaces*, Routledge / Falmer, London and New York, 2002
75. Pretty, Grace H., Heather Chipuer, and Paul Bramston (2003): Sense of place amongst adolescents and adults in two rural Australian towns: The discriminating features of place attachment, sense of community and place dependence in relation to place identity. *Journal of Environmental Psychology* 23(3): 273–87.
76. Prezza, M., Amici M., Roberti '1', and Tedeschi, G. (2001): Sense of Community Referred to the Whole Town: Its Relations with Neighboring, Loneliness, Life Satisfaction and Area of Residence. *Journal of Community Psychology*, 29 (1): 29-52.
77. Project for Public Spaces (2012): *What makes a place great: Second to none*
78. Project for Public Spaces (PPS) (2000): *How to Turn a Place Around: A Handbook for Creating Successful Public Spaces*. New York: PPS.
79. Project for Public Spaces (PPS) 2013: *Cities are for People, Not for Cars*. <http://www.pps.org/reference/cities-are-for-people-not-for-cars>.
80. Rashiq Fataar (2017): *Public Spaces in African Cities: Future Cities (comprised of Future Cape Town and Future Lagos)*
81. Ray Bromley (2000): *Street Vending and Public Policy: A Global Review*
82. Reny Syafriny, Cynthia Wuisang, Sangkertadi (2016): *Perception of Urban Community Concerning The Existence and Performance of Public Open spaces*
83. Sandalack, BA and F Alaniz Uribe (2010): 'Open Space Typology as a Framework for the Public Realm' in *The Faces of Urbanized Space*, R. Barelkowski (ed.)

84. Shayna Pollock (2014): Production, Use, and Barriers to Access in Public Space: A Comparative Case Study in Metro Atlanta, GA, USA
85. Sirgy, M. Joseph, Ferran Casas, Don Rahtz, Alex Michalos, and Bruno Zumbo. Eds. (2000): *Developments in Quality-of-Life Studies*. Volume 3. Blacksburg, Virginia: International Society for Quality-of-Life Studies.
86. Sonny Wantouw, Antariksa, Bagyo Yanuwidi and Zetly Tamod (2014): Perception and Participation on Co-Management of Green Open Space in Coastal Reclamation Area Manado
87. Source: PPS (2012): More than just space - quality public spaces hold great benefits for cities
88. Staeheli and Don Mitchell, (2006): Regulating Space and Creating Community in American Shopping Malls: USA's Destiny? *Lynn A. Urban Studies* 43(5/6): 977-992.
89. Staeheli LA and Mitchell D (2008): *The People's Property? Power, Politics and the Public*. New York: Routledge
90. Sugiyama T (2008): Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships?
91. Talen, E. (2000): Measuring the public realm: A preliminary assessment of the link between public space and sense of community. *Journal of Architectural and Planning Research*, 17(4), 344-360.
92. Valentine, G. (1990): Women's Fear and the Design of Public Space. *Built Environment* 16(4): 288-303.
93. Van Melik, R, Van Aalst, I and Van Weesep, J. (2007). Fear and fantasy in the public domain: The development of secured and themed public space. *Journal of Urban Design*. Volume 12(1), p. 25-42.
94. Watson, S. (2006): *City Publics- The (dis) enchantments of urban encounters*. Oxon and New York: Routledge.
95. Weintraub, (1997): *Public and Private in Thought and Practice: Perspectives on a Grand Dichotomy*. Chicago, Ill.: The University of Chicago Press
96. Wekerle, G., and C. Whitman (1995): *Safe Cities: Guidelines for Planning, Design and Management*. New York: Van Nostrand Reinhold.
97. Whyte, W. (1980): *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces Inc.
98. Worpole, K. (2003): *Last Landscapes: The Architecture of the Cemetery in the West*, London: Reaktion Books.

99. Yandisa Bavulele Mashalaba (2013): Public open space planning and development in previously neglected townships. Department of Urban and Regional Planning, University of Free State
100. Zajac, A. (2013): Public Space that Excludes: A Case Study of Warsaw. Paper presented at the International RC21 Conference, Berlin.
101. Zukin, S. (1995): The Cultures of Cities. Malden and Oxford: Blackwell Publishing.

ANNEXURES

Annexure A: Informed consent letter

Title of research project: The perceptions and experiences of residents towards different types of public spaces: a case study of Duncan Village.

I, Ttrymore Hutu, a post graduate student at University of Pretoria, am conducting research on the perceptions and experiences of residents in different types of public spaces in Duncan Village Township.

In this study, participants are required to sign an informed consent form in order to grant permission to be interviewed.

Participation is voluntary and all gathered data / information will be anonymous. The research findings may be submitted to an academic journal for publication. As a participant, you have the right to choose whether you want to take part / participate or not and also have the right to withdraw your information when you do not feel comfortable to continue with the study.

All the information that will be collected from you is for educational purposes only. As participants, you are assured that all the information you are going to provide will be protected and kept confidential so that unauthorized people will not have access to data which gathered.

Researcher's signature..... Date.....

I.....hereby voluntarily grant my permission for participation in the research as long as what is written above is practiced.

Participant's signature..... Date.....

Witness's signature..... Date.....

Annexure B: Interview schedule

The researcher conducted interviews with willing public space users within the study area. The questions were as follows:

Interview with local residents / participants

- (i) What are factors that affect the use of existing public spaces within Duncan Village?
- (ii) Who are the public space users?
- (iii) How do you perceive public spaces?
- (iv) What types of public spaces are needed or preferred by you and where should these proposed public spaces be developed?
- (v) What types of activities should be accommodated in the proposed public spaces?
- (vi) Is public space important to you and if so, how important?