IV municipal planning guidelines
municipal planning guidelines

We will take the current redevelopment plans of Duncan Village into consideration by trying to envision how they can affect the structure and use of public spaces.

buffalo city integrated development plan 2002

The Integrated Development Plan (IDP) for Buffalo City Municipality includes an interpretation of the later mentioned Governmental Development Facilitation Act (DFA) and the Duncan Village Local Spatial Development Framework (LSDF). The IDP recommends that new investment in housing, commercial buildings, industrial sites and recreation facilities should be used to increase the intensity of land use within the confines of the existing urban area. This in order to raise living densities, improve public transport viability and increase economic activity.

The IDP regards Duncan Village as one of the most important inner-city urban renewal areas in Buffalo City Municipality. It is an area where the demand for temporary and permanent residential accommodation is exceptionally high and where densification can be best promoted and through this the creation of economic opportunities. The upliftment of Duncan Village could also contribute to the revitalisation of East London Central Business District and give impetus to other development projects in the area.

development facilitation act (DFA), 1995

The DFA 67 of 1995 gives general principles on how to manage land use, and new land developments, when planning in South Africa. This means, according to the IDP, in the case of Buffalo City, to:

- discourage illegal occupation of land, whilst acknowledging that informal land development processes are a reality in Buffalo City Municipality.
- promote integrated land development and mixed land use areas in which it is easier for people to live closer to places of work and economic opportunities.
- ensure the best possible use of existing infrastructure and resources, and contribute to the correction of historically distorted spatial patterns of development.
- discourage "urban sprawl" actively and promote the consolidation of urban settlements.
- encourage environmentally sustainable land use practices.

These principles are all relevant for the Duncan Village redevelopment initiative, and should also set the framework for our project concerning the development of public spaces in the area.

the duncan village local spatial development framework - a redevelopment initiative

The Duncan Village Local Spatial Development Framework (LSDF), which is a result of the Duncan Village Redevelopment Initiative, is a comprehensive plan functioning as a guide for the future spatial and physical upgrading and redevelopment of Duncan Village.

The Duncan Village Redevelopment Initiative is a program developed by the Buffalo City Municipality with the aim to facilitate the urban renewal of Duncan Village in a comprehensive and integrated manner. The municipality has in cooperation with governmental departments and international consultants set some key issues for the project. The goal is to promote an urban structure with mixed land-use where an integration of social, economic, and physical aspects take place. Duncan Village should be more pedestrian orientated with a mix of de-densification in some areas and densification in other areas, to promote a more efficient and sustainable living environment.

The aim of the LSDF is to create an urban environment in Duncan Village that supports better access to opportunities such as economic spaces and social facilities. It should also facilitate the local pedestrian movement by linking the three neighbourhoods of Duncan Village as well as improve the connections to East London. A range of housing and acceptable infrastructure should also be contributed. The outdrawing of a specific program for the redevelopment has been commissioned to consultants.

The key elements of the project, beside a large amount of new housing, are to:

- transform Douglas Smit Highway and change it from a highway to a pedestrian-oriented road with intensified and mixed land use development.
- strengthen the internal links with improved pedestrian and road networks.
- improve the external linkages with e.g. a new link to Ziphunzana Bypass.
- use the open space system wisely, develop the "Gwentsha Memorial Garden” and use disaster risk areas such as floodplains for public recreation areas or cultivation to prevent informal settlements.
- redevelop key areas with priority localities for high density housing.
- develop new settlement areas where possible.

41 The Department of Housing, the Local Government and Traditional affairs, the Dutch Van der Leij Habitat Foundation, Bouwfounds and Own Haven Housing Association.
42 Buffalo City Municipality (2002)
1. A new connecting road from Ziphunzana Bypass to Douglas Smit Highway.

A new gateway function is planned at Ziphunzana Bypass west of the site of Nyathi Public Primary School, where a new road will connect to Douglas Smit Highway through C-section. A new market square is to be developed at Jabavu Node which is at the intersection of the new road and Douglas Smit Highway. 1. **Douglas Smit Highway through C-section.**

2. Douglas Smit Highway through C-section

This part of Douglas Smit Highway will be developed into a pedestrian oriented corridor and include a market square. The renewal of the area also comprises a redevelopment of D-Hostel and the lower part of C-section.

3. The Amalinda River Valley.

The old cemetery will be developed into the Gwentsha Memorial Garden and a gateway function is suggested north of it, at the entrance from the Ziphunzana Bypass. The river banks in the south will be used for urban agriculture and possible areas for new dwellings have been identified in connection to them. A new spiralling road in the west part of Duncan Village Proper is also planned.

4. The Douglas Smit Highway Corridor at Duncan Village Proper.

This will be a pedestrian orientated corridor with commercial developments and secondary node developments at intersections.
Concept sketch by Gijs van Boomen;
The structure of Duncan Village - three neighbourhoods, two valleys.
land uses proposed by the LSDF
public space
views on public space

“Public space or a public place is a place where anyone has a right to come without paying an entrance or other fee. In general, there is no expectation of privacy in a public space.”

Public places are not owned by special groups, nor dedicated to special purposes; they do not impose restrictions on their use, so long as one person’s use does not limit anyone else’s.”

The main definition of a public space is obviously that it is not private. But when it comes to further understanding the role of public space, and what aspects to consider when planning it, there are several ideas with importance for urban life. We have attracted attention to a few aspects that we think could be of significance in our work.

the south african practice - hard and soft open space

In the South African planning practice public open spaces are often divided into two categories; hard and soft open spaces. Hard open spaces include for example squares and streets while soft open spaces are green areas, with grass or other vegetation, such as sport fields and parks.

We are aware of this planning practice but have chosen to deviate from this division and only focus on the concept of public space. If we were to work according to the South African practice we believe there could be a risk that it would govern or inhibit us in our thinking when planning public places. Is for example a boulevard a hard or a soft space and what is a square planted with trees categorized as?

rob krier - urban space

Rob Krier is a representative of the urban design movement New Urbanism and advocates the restoration of existing urban centers and towns by discouraging urban sprawl, social and economical separation and environmental decline. Rob Krier claims that “…cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions.”

We have observed that even though Duncan Village is situated in the periphery of the city centre it has the urban qualities of density, mix use and movement in at least the same extent as the East London city core itself. What is missing is the element of urban design that usually is part of public spaces and buildings, in suburban areas of the size as Duncan Village.

According to Rob Krier an urban space needs to be geometrically bounded by elevations. It is “… only the clear legibility of its geometrical characteristics and aesthetic qualities which allows us consciously to perceive external space as public space.”

christopher alexander - the concept of linearity

Christopher Alexander brings in article The city is not a tree up several advantages of linearity as a basic spatial concept.

According to Alexander the structure of linearity offers the possibility to facilitate a range of activities within one channel accessible in a single movement route and journey. Linear developments can occur at many different scales ranging from inter-metropolitan to pedestrian level, both as activity spines as well as nodal developments with higher concentrations of activity. Economic opportunities are therefore created both for small and large entrepreneurs since land values tend to vary at different points along a linear development.

Alexander points out that the linear form offers the greatest possibility to achieve high density while still retaining proximity to visual and environmental relief. It is important that the linear development has a variety in intensity in order not to be too featureless and it therefore requires focal points and places of opportunities. These naturally congregate around points of high accessibility and can be secured by placing public infrastructure at them. Furthermore linearity has a good potential for creating an environment of high quality. Commercial developments for example can be divided into a front and a back. By doing this public interaction can be oriented towards the street while areas for parking and delivery can be placed in the back, away from the public face.

We consider that the concept of linearity is appropriate to bring up when discussing the spatial form of Duncan Village. The main activities are already today concentrated along a central spine, the Douglas Smit Highway, to which all of the residents have good access due to the oval form of the township. We believe this also will be the case in the future Duncan Village. That the municipality consider Douglas Smit Highway as being a key issue to focus on in their redevelopment plans is clear from the plans of mixed-use development and nodes along it.

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43 Wikipedia - The Free Encyclopedia.
44 Crowhurst Lennard, S.H., & Lennard, H.L.
45 Council for Scientific and Industrial Research - CSIR (2001)
46 Congress for New Urbanism - CNU.
47 Krier, R. (1979)
The spaces between the buildings play an essential role for the experience of an area as a whole. According to Bill Hillier, an urban grid has a natural internal order with an integration of main linkages and nodes. By integration he means how one space is related to other spaces in the city, that is how many spaces you will pass to get from one point to another. Well integrated urban spaces have a good accessibility to many other spaces in the city, and thereby have a high through movement. The choices people make in selecting urban spaces for informal activities reflect proximity to areas that are well integrated in a system as whole. Retail, for example, survive best in locations in active streets which are both accessible and have through-movement.

According to Hillier, accessibility and through-movement are both spatial and functional effects of integration. Where there is no natural movement the space will be empty for most of the time, leading to urban malfunction. It is the architecture of the grid itself that governs the pattern of movement, not the location of ‘attractors’ and ‘magnets’. Spaces that have high through-movement, that is they must often be passed to get to specific destinations within the city, are important components in the urban grid and are over time often developed into destinations themselves.

We believe it is important to work with public open spaces in areas of high accessibility that are well integrated in the urban grid and also to make improvements in the grid itself. An existing public space might for example be more actively used with only small changes in the pedestrian network giving more people access to it. If the public spaces are not easily accessible people will not use them, no matter how high their quality of design is. Even though the main activities in Duncan Village are conducted along a linear structure we believe that main roads and intersections within the different neighbourhoods connected to Douglas Smit Highway will have the potential of forming a secondary structure of public spaces supporting the main activity spine. When suggesting ways to achieve this, our aim is to build upon the existing structure.

Howard Besser discusses in *Intellectual property* the phenomenon of pseudo-public spaces. The growth of the suburbs, with often homogenous socio-economic groups, has removed public life from the inner city streets to pseudo-public spaces that functions as substitutes to “real” public spaces. Examples are malls, theme parks and sport stadiums. Pseudo-public spaces resemble public spaces in diversity but are privatized and “sanitized” of certain elements. Being private they can exclude people “not wanted” and prohibit activities that do not support their business.

Pseudo-public spaces are an existing phenomenon in East London. Examples are the shopping centers of Vincent Park and Beacon Bay outside the East London city core. These are not accessible for people without car or who do not live in the area, which automatically excludes the poorer parts of East London’s population.

In the redevelopment of Duncan Village we consider it important to provide public spaces accessible to all of its residents, as well as residents from surrounding neighbourhoods, at different hours of the day.

Jan Gehl divides in his book *Life between buildings* activities conducted in public space into three categories:

- **Necessary activities** are compulsory activities as going to school or work, shopping and waiting. These are generally everyday tasks influenced only slightly by the physical structure.

- **Optional activities** are undertaken only when the exterior conditions are in favour for them. They are usually recreational activities especially pleasant to pursue outdoors as walking, standing or sitting.

- **Social activities** are dependent on the presence of others in public space. They occur spontaneously as a consequence of other people in the area. Activities such as play, greetings, conversations and listening to others are indirectly supported whenever necessary and optional activities are given better conditions in the public space.

Gehl explains that in the beginning of the 20th century almost all people were engaged in some type of necessary activity in the streets of the western world. People were present because they had to, regardless whether or not quality was provided. Today the functions of public space are essentially to facilitate social interaction and social events. However people who are forced to use the public spaces are still to be found in countries with less developed economies such as South Africa.

Our inventory shows that the public spaces in Duncan Village act as extensions of overcrowded individual dwellings by giving opportunities for privacy, recreation and rest as well as to facilitate informal trade necessary to make a living.

The optional character of most public life in present day western cities places very high demand on the quality provided in the spaces and their overall invitation. Contact with other people, possibilities for experience and recreation and so on are opportunities highly required. Different groups of people use the public room for different reasons. To find a balance, a mixture and to integrate different groups is a key to make the city and the public places attractive. If the quality is there and the spaces are well placed, well designed and inviting people will use them. If not, the spaces will be deserted.

Fever necessary activities in the public spaces will probably be the case in Duncan Village if the redevelopment plans of solving the housing shortage and improving the social and economic conditions for its residents becomes reality. This will probably put a higher demand on the quality in the public spaces.

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49 Hillier, Bill, Specifically Architectural Knowledge
53 ibid.
54 ibid.
Jan Gehl argues that it is very difficult to accomplish active public spaces in new dwelling areas because the densities usually are very low and the functions are spread out. The spaces that are developed are often formed in a disorganized pattern with no reflection about climatic conditions or concern about human behavior or movement pattern. According to Gehl the question when planning public space must be: What kind of life do we want here? What kind of spaces will be needed for this life? How can the buildings in this area be placed and formed to support these spaces and the life in this area? The planning method must be first life, then spaces, then buildings. Traditionally the planning method has been the opposite, putting most focus on the building structures.55

We believe it is important to apply this planning method in the redevelopment of Duncan Village even if there already are some existing structures. The question of where public life is and can take place must be integrated in the redevelopment plans from the beginning, by studying how and where people use public spaces.

56 Town & Regional Planning Consultants, Development and Housing Consultants (1994).
57 Councilor Mgesi interview 6/11-2004
58 Buffalo City Municipality; Directorate of Development Planning (2002)
issues to consider when planning public space in south african townships

crime prevention

In South Africa there is a general concern about crime and safety when planning and designing public space. Because of the high crime rates in South Africa as a whole, and in informal townships especially, safety is one of the main concerns when developing public spaces and encouraging people to use them. The public spaces have to be accessible places where people can act in a relaxed way and feel safe. An important element when designing enclosures, plazas and other public spaces is that they must allow interaction but also ensure that the spaces are defensible. Through interviews we have found that crime and violence is a problem in Duncan Village. Not many people move about in Duncan Village at night due to the risk of assaults and robberies. There are also problems with vandalism and theft from public spaces and facilities with e.g. lids from cesspits around the library being stolen, trees cut down to be used as firewood and advertisement boards stolen and used as building material. The vandalism is most often not a destructive lust; it is the living conditions of many residents that stress them to criminal behavior in order to survive.

As mentioned earlier we want to avoid the development of artificial public space in Duncan Village, as described by Howard Besser, with fencing and security guards to create an illusion of safety. We believe public spaces should be open, but yet defined, spaces accessible to all, also after dark, where the presence of others leads to increased social control and the feeling of security. Public spaces have to be designed so they are useful for the people that they are intended for. If people collectively think the public places are an important asset to them it would lead to a better care and attention of them.

discouragement of land invasion

The Integrated Development Plan (IDP) brings up the problem of informal settlements. Due to the high influx of people from rural areas to the cities there is a shortage of dwellings in formal housing areas. This and the poor economy of many newcomers result in people invading public land through building informal structures. This uncontrolled development can according to the IDP have severe effects on natural habitats, cultural landscapes and air and water quality. It can also lead to overcrowding, unsafe building constructions and have effects on the investments in infrastructure as well as aesthetic concerns.

Shacks are a reality in Duncan Village but through the redevelopment program the informal structures planned are to be replaced by formal houses. New land invasion on the river beds could be discouraged if they are developed as public open spaces with a clear public purpose. As said in the passage crime prevention, a mutual concern and control of the spaces would prevent degradation, occupation by informal dwellings and other “non-public” uses originally not intended for them.

diversity in the city

Monotonous commercial or residential areas with activity only at certain hours can be devastating for the public spaces within them. The redevelopment plans for Duncan Village promote both high density and mixed land use. Diversity is wanted with a blend of residential dwellings, work places, shops and public spaces.

According to the principle of true urbanism, developed by Lennard & Crowhurst Lennard, the ultimate building block is the shop/house. This is a building with shops, workshops or restaurants at street level and residential dwellings above. The close proximity of the living, working and social life of the private and public spheres, is what makes the public spaces welcoming and the private dwelling convenient. The shop, restaurant or business at street level draws life onto the street, square etc. and the apartments above provides, as Jane Jacobs’ calls it “eyes on the street”, nighttime control over the street or square. Diversity in space also provides places that support the economic activity which is utterly important in South African townships.

multi-functionality in spaces and places

Flexibility and multi-functionality are important concepts when investing in new developments where cost is a crucial element. A small financial investment must ideally perform many different tasks.

Guidelines for how to plan public spaces in the South African context have been presented by the Council for Scientific and Industrial Research. To maximize the use of facilities, and minimize the costs for provision of this, one solution could be to have different users during different times of the day. Schools for example can after school hours host adult education and their sport facilities could be used by the rest of the community. Likewise, public open spaces should also be able to accommodate a range of activities with change in intensity as well as changing use over time.

Permanent facilities for different services are often lacking in South African townships. Instead these are often provided by temporary solutions such as market stands and mobile clinics. In this way we consider public spaces, if good designed, could easily function for many different purposes.

 ibid.
60 Council for Scientific and Industrial Research - CSIR (2001)
62 ibid.
VI analysis
analysis

pulse measurement

In order to get a better picture of where it is essential to make contributions of, and in, public spaces we have conducted an analysis based on Christopher Alexander’s idea of linearity and Jan Gehl’s three categories of activities. We have chosen a linear line, the Douglas Smit Highway, as our research area. We call our analysis a pulse measurement. The pulse symbolizes the number of people conducting an activity along the line. We have also observed what kind of activities are taking place when possible divided them into Gehl’s categories of necessary, optional or social activities. The analysis has similarities to Gehl and Gemzøe’s Survey of usage patterns conducted in Copenhagen, presented in the book Public Spaces Public Life, but while their study compares public activities throughout a whole city centre, and also the changes over different seasons, this study compares the changes through one street and at different hours of the day.

The purpose of the analysis was to obtain a tool for visual observations of where public activities are most frequent and where developments or improvements of public spaces are best located. The identification of key areas are important in the further work when suggesting ways to upgrade the overall structure of public space in Duncan Village. Places where necessary activities are conducted will probably have a declined use over time when economic and social circumstances are improved for the residents, while places where optional and social activities are conducted probably have a quality that will continue encouraging people to use them.

procedure

The pulse along Douglas Smith Highway has been measured at five times during different hours of the day, approximately between nine am and five pm. We have distributed 19 stops along Douglas Smith Highway evenly at a distance of about 200 metres. These have functioned as spot checks of public life. The average time counting at the different stops has been approximately one minute depending on how many people have been in the area at that moment. Topographical features have affected the counting to some extent but despite this given a picture of the largest concentrations.

During the counting we have also tried to take notes of what kind of activities people have conducted, for example walking, waiting, playing or working, to be able to put these into Gehl’s categories of necessary, optional or social. The division of activities has been made according to our own assumptions. People who we have interpreted to be waiting for something have been standing or sitting in the streetscape without close connection to a private dwelling. They have often been part of a crowd but not socializing with others. People found to be sitting or standing for a recreational reason have often been residing in connection to a private dwelling having more room in the streetscape than in the own yard.

The results of the counting and the division of the three types of activities have been put together into a table (enclosure 1). Based on this we have developed maps where the different pulses have been made visual, divided into three levels of low, medium and high pulse. An average pulse which gives a picture of the activity through the whole day at the different stop, has also been calculated and is presented in a summarizing map.

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Gehl, J., & Gemzøe, L. (1999)
results

To simplify the orientation when giving comments of the activities taking place along Douglas Smit Highway we have divided it into three areas; Duncan Village East, Central and West, as the division in the inventory chapter.

Monday 9.20 - 9.50am

Duncan Village East
- High movement of people walking towards the East London city centre.
- Traders that are active outside B-Hostel, working in connection to their homes.
- Low activity around the Community Hall and the former burial ground.

Duncan Village Central
- Large concentrations of people conducting varied types of activities around the Jabavu intersection. The number of people is clearly decreasing towards the river bank areas in the west and east.

Duncan Village West
- An increased number of people waiting for transportation, probably because the longer distance to the city from this part of the township.
- High concentrations of people in front of school area, mainly students but also several street vendors.

Thursday 11.10 - 11.40am

Duncan Village East
- High number of people east of the Community Hall both in movement and conducting stationary activities.
- A crowd of people gathered around the Community Hall appearing to be waiting for something as well as street vendors strategically placed around them. Social activities as negotiating and children playing seem to be resultant from people waiting and working along the street.
- High movement of people around the Amalinda river bank and former burial ground, both in movement and active with cultivating the land. Several children are seen playing along the street.

Duncan Village Central
- Relatively high amount of people waiting for transportation or walking throughout the area.
- Traders mainly active at the intersection of Jabavu Road.

Duncan Village West
- High amount of people in movement in the whole area with exception from the part of the street in front of the sport ground.
- A large concentration of people outside the school ground, with students on break, street vendors, and people waiting for transport. A high amount of social activity is observed.

The most active time of day with high activity throughout the whole area.
Saturday 12.15 - 12.45am

Duncan Village East
- Low movement of people towards the city centre.
- High concentration of people in all ages, probably whole families, gathered around the Community Hall trading, playing and socializing.
- Pedestrian movement along the river bank with people crossing between the areas.

Duncan Village Central
- High concentrations of people moving about and socializing around Jabavu node while few people are conducting commercial activities.
- Few people active in the dense shack area between Jabavu and the Mzonyana river valley while a large crowd of people are passing over the river bank.

Duncan Village West
- Low number of people with exception from around the school area which has a high movement of pedestrians. More people in motion than conducting stationary activities, such as waiting.

Less people conducting necessary activities as working and walking towards the East London city centre, while social activities are more common.

Wednesday 14.10 - 14.40am

Duncan Village East
- Relatively high movement of people walking both to and from the East London city centre.
- Large amount of street vendors active around the intersection Douglas Smit Highway/Mzonyana Road.

Duncan Village Central
- Few commercial and social activities.
- Low pedestrian movement but high amount of people waiting for transport.
- High concentration of people crossing the Mzonyana river bank.

Duncan Village West
- Low activity throughout the street with exception from the areas in connection to the school site which has a large amount of pedestrian movement and street vendors. Fewer students than earlier during the day are seen in front of the school.

The time of day with the lowest number of activities throughout the area.
Wednesday 16.40 - 17.10am

Duncan Village East
• High pedestrian movement from the East London city centre.
• Few traders or other people working are seen.
• More optional activities as many people are seen sitting and relaxing.

Duncan Village Central
• High amount of a variation of necessary and optional activities as people trading, walking and relaxing are seen.
• High activity of people in movement around the shack area at the Mzonyana river bank, in contrast to other times of the day.

Duncan Village West
• Low activity of people throughout the street with exception from the school area where pedestrians and traders still are active as well as people doing their shopping.

**High pedestrian movement from the city centre and more people observed in connection housing areas.**

Average pulse

Four areas with large concentrations of people are seen in the pulse map showing the average activity throughout the day. It is important to remember that the measurements shown in this map has major variations during the day and that some areas having low activity could have had a very intense activity during some parts of day. One must also remember that this includes many different uses. Some areas have mainly through movement while others are places where people like to stay for a longer time.

1) The intersection Douglas Smit Highway/Mzonyana Road has been observed to have constant high concentrations of people, especially people conducting some type of commercial activity, either having market stands or work shops, or being customers in the formal or informal businesses. Many children are also seen playing in the area, often in connection to what probably is their working parents.

2) The area around the Community Hall has major changes in intensity, depending on if their is a “happening”. At those times there is a crowd of people, waiting or moving about, outside the gated area where many traders also have gathered. During calmer times of day the main activity in this area consists of residents in B-Hostel having commercial businesses in connection to their homes and pedestrians passing by or stopping to do some shopping.

3) A high amount of pedestrians have been crossing over the Mzonyana River in all five times of the survey. This in contrast to the part of the road passing the Amalinda River even though people are not seen retaining themselves in the area. We believe the reason for the high movement of people is the dense shack area situated at the river bed and also other dense living areas in the surrounding. The bridge over the river also becomes a sort of funnel since there is no alternative road to choose when for example going to the formal and informal businesses in connection to the school ground in Duncan Village West.

4) In the part of Douglas Smit Highway that passes the school ground in Duncan Village West the activity is high, especially during school hours, but surprisingly also in the afternoon and at the Saturday when we conducted one of our pulse measurements. The reason might be the closeness to Buffalo Flats shopping complex, giving informal traders opportunity to take advantage of its customers and compete with the formal business. Many students wait for mini bus taxis outside the school gate in the morning and after school hours and this seem to continue to be a major informal bus stop, for both them and other residents, in the afternoon and on weekends.
Duncan Village Central has a relatively high pulse throughout the whole area, and during the whole day, especially in connection to the intersection Douglas Smit Highway/Jabavu Road. We assume this is due to the dense housing areas surrounding the street and its central location. Because of the steep rock face between C-section and Douglas Smit Highway there are only a few connecting roads making the movement of people much more intense at the intersections existing between those.

The pulse of Douglas Smit Highway is obviously lower where it runs through areas with formal housing, that is in Duncan Village West and the east part of Duncan Village East even though the latter has high movement of people in the morning and afternoon when people are walking to and from the East London Central Business District. The activity is also low at barriers such as the enclosed sport ground in Duncan Village West and the old burial ground in Duncan Village East.

discussion

Gehl's strict division of activities in different categories has been the difficult part in our analysis. His categorization of activities do not include the activities of private character in the public spaces and that makes it difficult to separate necessary and optional activities from each other, as well as to interpret which of them the social activities are a result of. In a sense all of them become necessary when people are not able to make an active choice of using the public or the private sphere. It is most likely that pedestrians walk due to lack of other modes of transportation and not for a recreational purpose that is optional. That pedestrians have conducted a necessary activity has been most clear during weekdays when the movement has been towards the city centre but more difficult to interpret during a Saturday afternoon when the movement of people mainly has been within Duncan Village.

People found to be sitting or standing for a recreational reason have often been residing in connection to a private dwelling having more room in the streetscape than in the own yard. In a sense this is a necessary activity when the reason for being in the street is the lack of own private room. With the redevelopment these people will probably be fewer unless the street is designed so that it is more attractive to spend time in than the own home. People sitting have also been children or others in company with for example traders, not working themselves. These will probably also be present after the redevelopment.

What we have assumed to be people conducting necessary activities have most often been pedestrians, traders or others working in the street. To maintain a living is obviously a necessity but we believe it is optional where this is done. Exterior conditions are for example in favour for street vendors to reside in certain places, which is where there are high concentrations of people. That is why during most times of counting there have been many traders in the same places as where there has been a high pedestrian movement.

Even though the areas with a high pulse, according to our study, are the places where public life can be best supported, the quality in the physical environment cannot be neglected in areas where the pulse is low. Since some of the calm areas are located where the neighbourhoods are connected to each other the physical environment should encourage interaction. It is important to get continuity in the public spaces all along Douglas Smit Highway.
VII summary and discussion
Summary and discussion

The purpose of our inventory, the summary of the municipal plans where the Duncan Village Local Spatial Development Framework (LSDF) plays an especially important part, our analysis as well as the different theories regarding public space, was to show what qualities can be developed and what weaknesses should be redressed in our work. In the following passage we have summarized the most important issues from earlier chapters which will have relevance in the plan proposals.

Density

The main characteristic in the township structure is the high concentration of people, especially in Duncan Village Central and Duncan Village East which have most of the shack areas. This creates a lively atmosphere but is also a problem having led to congested living conditions for the residents.

With the redevelopment of Duncan Village the replacement of informal structures with formal multi story housing units, high density in key areas and mixed land use are important concepts. Duncan Village will therefore continuously be characterized by high density with little room for private spaces.

Street life

With limited amount of land available for public open spaces the streetscape plays an essential role in the overall structure of public spaces. Our inventory shows that Douglas Smit Highway is the main activity spine and is where most public activities are conducted. That the majority of the residents in Duncan Village do not own their own car also creates a livelier streetscape with many pedestrians.

The Local Spatial Development Framework suggests that the future highest living concentrations will be along Douglas Smit Highway, providing a good base for future public spaces and commercial developments. The aim is that it should be developed as a pedestrian oriented road, especially at those parts that run through C-section and Duncan Village Proper. These are also areas where our pulse measurement shows high activity of people and a lot of informal businesses.

Spatial structure with mixed use

Duncan Village has an unclear spatial structure with a lack of focal gathering points and formally planned public spaces for recreation as sport, play and rest. Most of the area is occupied by an unstructured mix of informal and formal dwellings and businesses making it difficult for outsiders to orientate.

Diversity in the streetscape is a quality already existing in Duncan Village and should be further developed according to the LSDF. It encourages a mixed land use, with both housing and commercial businesses along the streets, and an urban environment that supports access to opportunities. With the redevelopment formal housing areas will be developed but the informal businesses that are commonly seen along the streets will probably continue to be active since they provide for an important income.

Node developments

We observed, both in our inventory and our analysis, that some parts of Douglas Smit Highway had larger concentrations of people, creating informal nodes. This means that there is a potential to develop strategically located places, probably chosen strategically by for example traders, into formal public spaces.

There is a today relatively high density of people at the intersection Douglas Smit Highway/Jabavu Road. The new connecting road, suggested by the LSDF, will probably generate even higher activity in the area. That the municipality suggests a new large market square and node development here seems to be appropriate since it is the old center of Duncan Village centrally located in the area. The municipal plans suggest secondary node developments at the intersections in Duncan Village East, but we have observed the highest concentrations of people and activities at one specific intersection - Douglas Smit Highway/Mzonyana Road. We think more focus should be attended to this in the redevelopment plans.

Two new gateway functions are suggested in the municipal redevelopment plans, one at the new entrance connecting Jabavu Road to Ziphunzana Bypass and the other at the suggested memorial garden at the intersection of Ziphunzana Bypass/Ndende Road. When looking at the topographical features it seems more relevant to have a gateway function at Ndende Road since it gives a good view over Duncan Village and would therefore function as a commercial purpose. Because of the rock face at Ziphunzana Bypass where the new entrance through C-section is planned we believe it is more important to easily connect people directly to the Jabavu node. It should also be remembered that there is a new gateway function with a gas station and shops at the east entrance of Duncan Village.
lacking open spaces

The open spaces in Duncan Village are either enclosed, not being accessible to all community residents, or occupied by informal dwellings. Our main impression on how people in Duncan Village consider the public environment is that it is seen as a space belonging to them all. Therefore they have the right to use it as their own and for their own purposes. When it comes to purposes as everyday activities it the public space it is positive and creates a vivid street life. In other cases when housing is erected on public land, and in a sense privatizing it, the consequence is fewer public spaces for the residents to share.

The spaces that become available when the informal structures are removed should be made available for public use but at the same time secure them from future land invasion. This is a difficult balance. The spaces need to be developed with a clear public purpose but at the same time offer a flexibility in use so that all of the residents in Duncan Village think they benefit from having them.

qualities and assets

Is the public life visible in Duncan Village today only a result of the poor conditions in the area or can a vivid public life be a reality also after the redevelopment of the area?

It is our ambition that the vivid street life in Duncan Village, a Swedish planners dream, should be sustained in the future. With a residential group already used to conduct errands out in the open the opportunities for still doing so should be promoted. The quality is extremely important if the necessary activities are to start giving room for optional activities.

Since public spaces are few and economic funds are sparse it is important to develop and improve the assets that are existent. The development of the former burial ground into Gwentsha Memorial Garden, suggested by the Local Spatial Development Framework, could be an important asset accessible for most people in Duncan Village and also encourage people driving along Ziphunzana Bypass to enter. The Community Hall and the Art Centre would probably be good functional public spaces if they were to be made more accessible to the public. School areas that during the days are very active, often having room for sport and play, should be taken advantage of also during the evenings.

accessibility

The LSDF stresses that the internal and external linkages should be strengthened. Today most people have good access to Douglas Smit Highway but the connections between the three neighbourhoods are deficient. We believe a secondary structure of public spaces and linkages is important to tie the township together, but also to strengthen the importance of Douglas Smit Highway as the main public space for needs that the neighbourhood centres cannot meet.

The main spaces where the linkages need to be improved are through the green open spaces. While the former burial ground, the sport fields and the river beds have important functions offering visual and recreational relief, they also form barriers within Duncan Village and to adjacent communities.

The new road connecting Jabavu Road to Ziphunzana Bypass is believed to strengthen the external linkages but the lack of accessibility to Duncan Village does not only have to do with physical barriers but also psychological. The history has developed a psychological resistance for people unfamiliar with Duncan Village to enter the township. Therefore it is important to work with the first impression; the entrances to the area, and make them welcoming.
VII plan proposal
concept of plan proposal

- **Node developments**: high intensive public space
- **Secondary nodes**: medium intensive public space
- **Neighbourhood centres/recreational spaces**: low intensive public space
- **Existing and by LSDF suggested road network**
- **New connections**
overall structure of public space

The municipal redevelopment plans with the removal of informal structures and the contribution of new formal houses and additional roads, have been included in a land use map on which our suggestions for further improvements of public spaces in Duncan Village is based. Nodes and other public spaces pointed out in the Local Spatial Development Framework have been reviewed together with the material gained from our inventory and analysis, and from which we have come up with an overall concept of public space in Duncan Village. This shows where public spaces in Duncan Village would be most suitable to develop, their different characters and how they are linked, including some improvements in the road network. Our plan proposal gives a more thorough description on how the public spaces and the linkages between them will function with their surrounding land uses. Along with this we suggest general design principles for public spaces in Duncan Village. To give a visual image on how some specific public spaces could be developed, individual detailed plan proposals are also presented.

Improvements in the overall structure of public space is suggested mainly by refining existing spaces, to some extent developing new spaces, and improving the linkages between them. In order to create good public spaces they have to be well located in the urban grid. The new public spaces that we suggest are all located at places easily accessible. These are places where our inventory and analysis have revealed a vivid public life that is lacking a proper public space. The most active places today should also be hectic spaces tomorrow.

a concept for public spaces

In our proposal for the overall structure of public spaces we have chosen to put our main focus on the environment along Douglas Smit Highway, the artery linking the area, since this also is the most active space today. Because of its central location this is where most residents in Duncan Village can take part of and enjoy the public spaces and the public life that Douglas Smit Highway generates and gives opportunities for.

The public spaces have to be supportive to strengthen the social and economic conditions for the residents in Duncan Village. They should give opportunity for people to make a living in them providing space for e.g. informal businesses and agriculture. They should also provide space for information regarding communal and social issues, and encourage the spreading of this. A share of uses is encouraged both in public facilities and spaces.

We are suggesting a mixture of public spaces with differences in intensity and character. Different types of spaces are suggested in the area to increase movement and thereby interaction of people, even though all of the uses have to be accessible to the residents at walking distance.

Both the streetscape of Douglas Smit Highway, as well as the public spaces suggested to be developed or improved in connection to it, have been divided into three degrees of intensities; high, medium and low intensive spaces.

High intensive
Node developments situated at major, highly accessible intersections. They are mixed use spaces with high movement and interaction of people offering opportunities for a wide range of opportunities that vary in form and scale. The node developments should be able to develop further, encouraging new developments.

Medium intensive
Secondary node developments with a lower degree of through movement than the major nodes. The variations in high and low activity can be depending on the time of day or on special events. As they are more focused on specific uses they do not have the same potential to further develop, even if they will be flexible to facilitate temporary changes such as events as celebrations of different kind. Market squares or areas with different types of public amenities should be part of the developments.

Low intensive
Neighborhood centres situated at intersections where we estimate the through movement in respective area will be the highest. The idea is that these developments will strengthen the neighborhoods as specific areas, improve the orientation in them and give opportunity for local smaller businesses to establish in connection to where people live. The low intensive spaces are also public spaces more focused on recreational purposes, for example sport fields and public green areas functioning as substitutes to the private green, offering visual and mental relief.
overall plan proposal

0 500 1000 m

new formal settlements
cemetery
urban agriculture
sport fields

neighbourhood centres
activity corridor: mixed land use
new formal settlements
park
cemetery
urban agriculture
nature: undeveloped open space
sport fields
We suggest a number of improvements including both the upgrading of existing pedestrian paths and the development of new pedestrian connections, giving a structure that would increase the accessibility between the neighborhoods and the public places, e.g. between schools that could share facilities. The changes suggested would improve the connections to the surrounding residential areas of Braelynn, Pfefferville and Buffalo Flats. The improvements would also give a more logical street network that makes it easier to orientate in the area. The safety issue regarding pedestrian paths is very important, and they all need physical improvements with wider sidewalks and better street lightning. This is especially important at the pedestrian link between Duncan Village and East London city centre. However the latter will not be dealt with in detail in our project.

The new access road from Ziphunzana Bypass to Jabavu Road/Douglas Smit Highway (1) is suggested in the LSDF and included in our work. We estimate that this will increase the movement of people at Jabavu node, giving better access to and from C-section as well as decrease through-traffic in parts of Douglas Smit Highway that are to be more pedestrian orientated.

We suggest that Ford Road, which leads into the south part of Duncan Village Center, will be adjusted so that it connects directly to Ndende Road further west (2). Today Ndende Road ends in a rock face which prohibits visual contact to the area south of Douglas Smit Highway, as well as it inhibits a smooth flow of traffic. A small change like this can be seen as very costly, meaning that blasting work is needed, but would improve the accessibility and the visual impression when driving into Duncan Village.

We suggest that the street network in Duncan Village Proper is altered to better complement the spiralling road suggested by the LSDF, as well as to improve the connection to Braelynn and to Douglas Smit Highway (3).
public spaces along douglas smit highway
1. The existing gateway function with gas station and a shopping complex has room for further commercial developments. We suggest that these will be situated in connection to Douglas Smit Highway as the developments today seem to be slightly in the periphery, and do not encourage public life in connection to them. The public spaces in the area needs to be better defined with clear boundaries. New developments would create a more intimate streetscape since this part of Douglas Smit Highway is lacking buildings, trees or other elements defining the street. Further developments will encourage more activities taking place in the area and bring the public life closer to the street, giving the impression of a livelier streetscape.

2. The intersection of Mzonyana Road/Douglas Smit Highway, which today is an active place with several informal and some formal businesses, is suggested to be further developed into a major node with a mix of different uses. Mixed land use with high concentration of people throughout the day will lead to increased social control in the area. The north east part of the intersection has a rather large piece of open land suitable for development with formal businesses or facilities, in connection to which there still would be room for informal business. Today the area has a high movement of people, being closely connected to a public school and densely populated housing areas. Further development of the node would not only be a strategic choice because it already today is a popular public room. It would also give better opportunity for interaction between the residents of Duncan Village Central and Duncan Village East, being situated centrally for both, as well as the residents of Pfefferville through the Windyridge Road.
3. The area around the Community Hall and the Art Centre is one of the most intense public places in Duncan Village during some parts of day, while it at other times is calm. Despite a formal public space; a square that is surrounded by the buildings mentioned, neither this nor the buildings are public in the sense that they are accessible. They, as well as a large green open area, are all enclosed behind gates and all public activities have to take place in the street. We suggest that the area is to be opened up to the public and be further developed in a way that highlights its cultural image. A new public library and an youth house are part of this. The space should have room for larger amounts of people and different uses, but also function at calmer times not giving the impression of it being deserted, but instead function as a place for recreation and other more tranquiller activities.

More detailed proposals will be presented in the individual part of the project.

4. Since Gwentsha Memorial Garden, which the LSDF suggests the old burial ground in Duncan Village East should be developed into, is one of the few areas of Duncan Village clearly visible from Ziphunzana Bypass. Therefore it is important that it gives an interesting and welcoming impression, encouraging people to enter. The memorial garden has the potential to function as a green node where interaction between the residents in Duncan Village Central and Duncan Village East can be encouraged, if linkages are developed through the area. In order to discourage informal settlements on land in risk of flooding it is important to develop the area as a clearly defined public space.

The Gwentsha Memorial Garden and its connection to the cultural area will be further described in the detailed plan proposals.
5. The area around the intersection Douglas Smit Highway/Jabavu Road; the Jabavu node, is suggested as a major node development being revitalized as the community center which was destroyed in riots during the 1980s. The new connecting road from Ziphunzana Bypass would further define the importance of the node which today is a popular public space. Mixed use is encouraged with housing and both formal and informal businesses being situated at, and around, larger market squares. Since the area is centrally located for all residents of Duncan Village it is suitable to function as a civic centre with intensely visited public facilities such as a municipal administration building, post office and community health care. Mixed land use with high concentrations of people throughout the day increases the social control in the area and prevent crime.

A suggestion for the layout of the area will be presented in the detailed plan proposals.

6. The existing library located in Duncan Village West is centrally situated in regard to the surrounding schools. However it is not ideally placed for the rest of the residents in Duncan Village since the highest living densities are in the central and eastern part of the township. It is also the residents in the high density areas who have, and probably continuously will have, less private space why a library with room for reading and studying is more suitable further east in Duncan Village. Our suggestion is to transform the existing library into a branch library serving the ten schools in close proximity to it, while a public library will be situated in connection to the Community Hall. The existing library is today anonymous turning its back towards Douglas Smit Highway and having its entrance from a residential street. A new complementary entrance from Douglas Smit Highway is needed to stress the importance of the building and also to make it more accessible since most visitors approach the building from this side. This part of Douglas Smit Higway is today rather monotonous and anonymous with little public life. A new entrance to the library and a public space in front of it would give variation to the street.
7. At the site for the Ebenezer Majombozi High School in Duncan Village West, across the street from the grass covered Gompo sports field, is a larger piece of undeveloped land we believe is suitable for an indoor swimming pool as well as a hard surfaced multi functional sports ground. The Gompo sports field, along with new facilities, would form a sports cluster in this end of Duncan Village that could be used both by the schools in the area and by other residents after school hours, both privately and for club activities. This would create activity in the area through all of the day. Even if the facilities would have some type of enclosures they would have to be “transparent”, offering visual access to minimize the barrier effect. This would also enable a vivid street life where the activities could be observed by people passing by, increasing the feeling of safety when going through the area at night time. The new swimming pool and multi sport field would acquire about half of the undeveloped school site area. The rest is suggested to be left as a nature park for play and recreation having high trees, leafy vegetation and an undulating form.

8. The narrow street verge outside the entrance to the Ebenezer Majombozi High School is a place where many people gather waiting for transport or for informal trade, but a formal space for this is lacking. On the opposite side of Douglas Smit Highway is the Buffalo Flats shopping centre with open land on each side of it. We suggest that this area should be developed with a smaller square with room for a shadowed bus stop and a smaller market. This part of Douglas Smit Highway is very wide and by narrowing the street, giving room for a square, the result would be a more intimate streetscape as well as a calming of the traffic outside the school area and the sport grounds. Having a formal public meeting place here would also improve the connection to Buffalo Flats hopefully encouraging interaction between the residents of the neighborhoods.

The sport ground that is suggested has been developed by SCORE, an organization that has introduced these types of facilities in South African township areas. The basic outdoor multi-purpose sport facility which is of low maintenance is suitable for basketball, netball, handball, volleyball, badminton, mini-soccer and mini-hockey and includes store and meeting rooms, as well as moveable equipment.64
general design principles

**Douglas Smit Highway**
To give Douglas Smit Highway a more pedestrian friendly character, developing it both as a link between public spaces and as a public space itself, several improvements can be made. The speed of the motor vehicles, mainly private cars and mini bus taxis, can be reduced by using features such as narrowing the street, pedestrian crossings in sidewalk level and the prevention of mini bus taxis stopping along some parts of the street.

Due to the solar orientation in South Africa the sun shines strongest from the north. Some parts of Douglas Smit Highway can become extremely hot during summer days since it along many parts is lacking trees or other elements providing shadow. With multi story buildings developed along Douglas Smit Highway the north side of the road will be in shadow, why we suggest that a wider pedestrian path will be placed on the north side of the street offering some comfort for pedestrians and street vendors.

Besides buildings, trees that are planted along the road can offer some shade. These would also better define the streetscape and add some green to it.

In consultation with traffic planners at the Buffalo City Municipality we do not suggest to contribute parking along Douglas Smit Highway. Instead this should be done within the development sites. The reason is the low number of car possession among the residents in Duncan Village and that the parking spaces most certainly would be used as stops for mini bus taxis.\(^{65}\) We suggest that formal stops for mini bus taxis should be arranged in more properly designed spaces.

**Oases**
To give a variety to the streetscape of Douglas Smit Highway we suggest that the new buildings along it should be laid out in an irregular pattern with some buildings withdrawn from the street. This would create smaller or larger openings along the densely built environment depending on the placements of the buildings. The openings, which we call oases, would give opportunities for the development of small public spaces which could be the settings for a mix of permanent and mobile facilities of different types, e.g. outdoor cafés and market stands. Residents living in the houses surrounding the spaces could also use these for home based businesses.

**Visual access to green**
To add some green to the dense streetscape it is possible to give visual access to riverbank areas from the street by creating sightlines through new buildings, and also by having smaller gaps between some of them. With these gaps it is also possible to make use of the topographical features along Douglas Smit Highway and for example be able to give access to the hillsides along C-section, being able to use these for recreational purposes as play etc.

\(^{65}\) Stockworth, L. discussion 15/11-2004
Shared sport facilities
Since financial assets and suitable open land is scarce we suggest that schools are to share sport facilities and sport fields to such a great extent as possible. The sports grounds should also be made available for the public. This could be done by having separate entrances to the schools and the sport fields since there is a wish to enclose the school grounds after school hours.

We suggest a number of school plots suitable to be developed with sports fields and sport facilities (see plan proposal). The idea is that different schools could be focused on different sports when having lack of space for developing several fields. Pupils would then be able to visit each others schools, if given better access to them, with improvements in the pedestrian network.

Urban agriculture
The riverbanks of Amalinda and Mzonyana contribute with some of the major green spaces in Duncan Village, but they are difficult to develop for public purposes and have become passive open spaces where informal shacks have been built. One solution for discouraging illegal settlements on land in risk of flooding could be to use them as public spaces combined for urban agriculture and recreation. With many of the residents in Duncan Village descending from rural areas we believe there is a good knowledge about agriculture in the area, and we have also seen people use road verges and other spaces available for cultivation. Spaces allocated for urban agriculture would both contribute with food and income for interested members of the community, as well as give a visual and mental relief in a dense living environment. Public paths could be developed through the cultivated areas to give the rest of the residents’ access.
detailed plan proposals

The decision of which areas to choose have had its origin in the analysis of the overall structure and in cooperation with the City Planning Division. The suggested plans have to fit into the existing and future urban context based on the master plan for the redevelopment of Duncan Village, existing land uses and proposals for improvement. The two areas chosen are of different character but both play an important role in the overall structure of public space in Duncan Village.

The key issue for this part of the project is to design spaces that allow flexible use but simultaneously discourages informal settlement. Other issues to consider are safety, accessibility for different groups of people and the practical needs of the residents of Duncan Village.

Further more detailed studies of the areas have been made to find out what qualities could be used and further developed, and what improvements to make so that the result was to be functional and attractive public spaces. To get inspiration we have visited other townships with recent and current redevelopment programs.

The areas we have come to work with are of different character, illustrating how public spaces focusing on different uses can be developed and used by the residents in Duncan Village. The first area includes the Gwentsha Memorial Garden and the site for the Community Hall, showing how these can be upgraded and liked. The area is intended to become a space for optional and recreational activities, a centre of cultural activity. The second area, a plan proposal for the Jabavu node, is taught to be a everyday urban space for intense necessary activities. The area is ment to provide for a civic centre and other public facilities as well as market places and public spaces for commercial activities and community happenings.