Midvaal Phase 2 - Sicelo Precinct Development Plan

December 2010

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Introduction
Project Background

The Sedibeng District Municipality received a technical assistance grant from the NDPG to develop business plans for precinct development in the Midvaal municipality. Urban Genesis (previously known as Kagiso Urban Management) was appointed in May 2009 to undertake a spatial analysis to determine strategic private sector projects, nodes and corridors and to assess the character of economic activity and its potential.

The work, coordinated by Urban Genesis, has been carried out into two phases. The first phase of the project was to provide a context and to produce a business case for the municipality to mobilise public and private sector funding of infrastructure (municipal engineering services and social and community infrastructure) and services in the municipal area.

Phase two, of which this work is part, has the following objectives:

- To formulate a precinct development plan that promotes social and economic growth and development in Sicelo with specific focus on the road structure and movement system, block layout and the location of required social and community facilities
- To identify key catalytic interventions that will leverage economic and community growth and development of the precinct
- To cost the interventions and formulate a final precinct development plan and implementation programme

Figure 1: Aerial view of Sicelo and Meyerton
Meyerton is the main urban centre in the Midvaal area and has a central business district (CBD) where most of the civic, retail, commercial, educational and public transport facilities are located. Residential densities decline from the CBD outwards with the low income residential areas being located on the periphery. These residential settlements then extend into agricultural holdings and farms. The residential townships of Kliprivier (Kookrus), Meyerton Farms, Golfpark and Riversdale, including the informal settlement of Sicelo, surround Meyerton CBD and its extensions.

The Meyerton/Sicelo node should be regarded as the primary node in Midvaal due to its composition of small to medium sized enterprises, offering approximately 300 business sites and 450 industrial sites. It is less diversified than other nodes of the same hierarchy, specialising primarily in metal and ceramic manufacturing enterprises.

Sicelo informal settlement lies to the west of the R59 and in Meyerton Farms. It is estimated that there are 2500 families in Sicelo. The dolomitic nature of the land in this area is not suitable for high residential densities and the Gauteng Department of Housing has embarked on a process of relocating families.
Study Area

The study area (Map 3) is defined by R59 in the east, Kraal and Duif streets in the south and Wisconsin and Esme roads in the west. The northern edge is Ratzker Street between Esme road and the R59. The area, covering 351ha of sparsely developed land, is isolated from the Meyerton CBD, largely due to the physical barrier of the highway network and industrial buffer zone.

The population of Sicelo has expanded significantly in the last 10 years, increasing by 39% during this period. It is currently estimated at 7,200 people. Figures 4 and 5 shows existing residential densities.

Almost half the potential labour force is unemployed and 50% of households live in poverty.

(Source: Midvaal Phase 1 Report)

Purpose of report

The purpose of this report is to document the vision, development principles, urban design guidelines, structuring elements and catalytic projects for the Sicelo precinct.

It includes issues and constraints identified during the status quo assessment and the outcomes of stakeholder participation.

Map 2: Local context
Study Area
Methodology
Approach

The project brief defines five distinct stages structured to allow for the participation and input of specialists and stakeholders.

As illustrated in figure 2 the initial stage was the project inception and confirmation of the brief.

The following four stages relate to the assessment of information and formulation of a precinct plan to guide the future development and consolidation of the area.
Issues and Constraints
Overview

The following issues are discussed in more detail in the Status Quo report. The most important aspects that need to be addressed in the Precinct Plan are summarised here. In general the area suffers from isolation and, due to the extent of the industrial activities surrounding it, has a high level of air and water pollution. The extent of the area designated for development is restricted, limiting the possibilities for accommodation and consolidation of the existing population. The constraints hampering the growth and development of the area that need to be addressed in the precinct plan are highlighted below.

Socio-economic profile
— Population is estimated at 7,200 people with the average household size being 3.6
— Slightly more females (50.8%) than males
— 12.8% of people have grade 12 or higher which is lower than the national average of 29.2% while 1.4% of people in the area are illiterate
— Unemployment - 48.9% with 33.5% of total labour force in formal employment, 17.6% informally employed
— The community, social, education, training and personal services sector employs 33.3%, domestic services 16.1%, construction 15.1% and manufacturing 15.1%

Geotechnical conditions
The geotechnical conditions are still under investigation. The results of these investigations are critical to fully understand the implications and the number of affected sites. From the existing information which covers the sites assessed by the provincial housing department, it can be deduced that existing vacant land not affected by flood lines can be used for development provided that the recommended densities are adhered to.

Land availability (Map 4)
Industrial uses occupy a large proportion of the developed land creating a real barrier between Sicelo and Meyerton. Residential uses are scattered. There is a substantial amount of undeveloped land that, if properly planned, could contribute to create a sustainable and diverse environment.

Housing initiative (Map 6)
There is a housing project which has been initiated by the provincial government. Phase 1 is under construction. Future phases and proposed number of units still to be confirmed.

3.5 Engineering services
Information about existing conditions is described in the Status Quo report. The summary of all relevant issues related to storm water, sanitation and electrical services are provided in annexure A.
Land Use

Figure 3: Land use map
Existing land Use

Map 4: Existing land use map
Vacant land ownership

Map 5: Vacant land ownership
Housing Projects

Map 6: Housing Projects
Planning Parameters
Planning Parameters

The issues and constraints inform the parameters that are used to formulate a framework for the integration of the area within the broader context and prepare the Precinct plan. These are:

Sicelo total area: 351 ha
Current population: 7,200 people
Informal settlement: 2,500 families
New housing: planned 434 units - 30 units/ha
Need 5000 low income housing units over the next 10 years

The above parameters are based on current information. However, the figures on current population and number of families living in informal settlements should be taken as indicative only. Critical to the development of the plan has been the ongoing engagement with key stakeholders and community representatives. Community consultation took place through workshops and meetings with community representatives as identified by the Midvaal Speaker. Meetings were held with community members, councillors and others and the technical steering committee.

The tables on the right indicate:

T1 - Existing population based on number of stands and current densities including proposed housing projects by the Provincial Government.

T2 - Projected population based on the proposed subdivision and densification of large stands.
Population forecast is based on 32 pp/Dwelling. The denser forecast has been used to plan the precinct.

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<th>Areas M²</th>
<th>No of Dwelling Units</th>
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<td>Total area</td>
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| Total Du/Ha (Incl Roads) | 2655.43285 |
| Estimated Population     | 8497.38512 |

Figure 4: Table 1

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<th>Areas Du/Ha</th>
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</tr>
<tr>
<td>Total area</td>
<td></td>
<td>2166781.9</td>
<td></td>
</tr>
</tbody>
</table>

| Total Du/Ha (Incl Roads) | 5476.92045 |
| Estimated Population     | 17526.14544 |

Figure 5: Table 2
Stakeholder participation
Stakeholder Participation Outcomes

Sicelo Community Requirements – summary from various meetings

**Ward 8**
- Land for houses
- Formalised township
- Community multi-purpose centre
- Health centre
- Police station
- Decent roads
- Schools
- Business centre/formal taxi rank
- Sports facilities
- Pedestrian bridge to be located as an extension of Station Road

**Ward 10**
- Health facilities
- Schools
- Roads
- Satellite police station
- Improvements to existing sports centre
- Community centre
- Confirm information regarding the need for a taxi rank

**General**
- Address safety of pedestrians crossing provincial roads
- Address environmental problems i.e.: pollution, noise, dust
- Sewer and provision of other services could be a problem for the densification of Sicelo
- Provide sites for places of worship
- Confirm location of dolomitic areas and impact this will have on developable areas
- Establish the land required for water pipe servitudes
- Establish engineering services constraints in terms of water, electricity and sewerage and what will be done to increase capacity to accommodate proposed development
- Fence area along R59
- Provide trading stalls to accommodate existing street trading
- Confirm ownership of White House property
- Indicate land that has been identified to accommodate residents of Sicelo who cannot be accommodated in the settlement – adjacent land to the north
- Confirm location and get details regarding a Shopping Centre complex proposed for Meyerton

Figure 6: Community meeting at local church
Development Framework
Key Development Principles

GENERAL PRINCIPLES

The social-economic and physical constraints of the area present real challenges that can be overcome through the careful planning of the area to:

- strengthen sustainability
- encourage economic potential and linkages
- strengthen social networks and groups
- promote environmental sustainability

In addition, housing delivery should provide:

- space for small-scale entrepreneurial activities
- convenience shopping
- home-based employment/outourcing as employment generation
- access to finance for home improvement
- potential for rental and small landlords

PRINCIPLES FOR RESIDENTIAL AREAS

Residential areas could be designed to accommodate additional people by promoting:

- Land efficiency - providing additional accommodation on a stand increases the density of the current and future subsidised housing residential areas
- Housing options - which could include the provision of approved backyard rental designs to extend the range of housing options offered
- Sustainable livelihoods - creating additional rooms on a site for rental purposes, micro-enterprises etc.

PLANNING SUSTAINABLE SETTLEMENTS

Sustainable settlements require the careful planning of all the components of the settlement to ensure best performance, including:

- impact of the road layout on the orientation of dwellings
- impact of site sizes and shapes on the orientation of dwellings
- solar access of individual buildings and yards
- service arrangements to minimise bulk service runs
- treatment of road verges
- access to green areas
- amelioration of environmental factors such as dust and smoke
Design Principles

The design of the precinct follows the recommendations described in the Sustainable Human Settlement policy which is concerned with furthering the course of sustainable development, particularly in relation to spatial, social, environmental and economic sustainability. The approach of ‘sustainable human settlements’ is aimed at addressing the past and current dysfunctionality of settlements.

General principles

• Maximize location advantages:
  housing and mixed use developments should be well located with respect to urban opportunities and amenities.
• Enhance mixed-use:
  encourage a wider range of intersecting activities to foster vital urban living
• Enhance public transport:
  take advantage of existing public transport services such as the BRT and local taxi services and improve the efficiency and accessibility to all local residents
• Promote non-motorised transport:
  Emphasize a non-motorised transport system accommodating cycling and walking within the City’s transport networks
• Enhance density:
  Increase the number of mixed and medium to higher density developments to maximise the threshold for services and infrastructural amenities
• Enhance settlement layout and design:
  This includes innovative planning layouts that fit within the context and afford maximum flexibility to accommodate growth and change over
• Urban greening and environmental conservation:
  take the natural environment into account, lessen the impact on nature and promote the planting of indigenous trees to green the environment
• Employment creation:
  As part of the poverty alleviation approach promote construction systems that create employment opportunities during and after construction of all intended developments
• Resource Management:
  promote the efficient utilization of scarce resources such as energy and water.
Design Principles

Sustainable community unit

In addition to the principles mentioned above, the size of a sustainable community unit should be taken into account. The majority of local daily needs for any resident should be within a reasonable walking distance from home. This implies approximately 2 km or 30 minutes walking distance from a central area.

Pedestrian Design Principles

Since the predominant form of transport in South Africa is walking, it is paramount to provide suitable sidewalks and improve the quality of the street environment.

The following principles will assist in the design of a pedestrian-friendly environment. They have been extracted from the Portland Pedestrian Design Guide, June 1998.

- **The pedestrian environment should be safe.**
  Sidewalks, pathways and crossings should be designed to be free of hazards and to minimise conflicts with external factors such as noise, vehicular traffic and protruding architectural elements.

- **The pedestrian network should be accessible to all.**
  Sidewalks, pathways and crosswalks should ensure the mobility of all users by accommodating the needs of people regardless of age or ability.

- **The pedestrian network should connect to places people want to go.**
  The pedestrian network should provide continuous direct routes and convenient connections between destinations, including homes, schools, shopping areas, public services, recreational opportunities and transit.

- **The pedestrian environment should be easy to use.**
  Sidewalks, pathways and crossings should be designed so people can easily find a direct route to a destination.
Pedestrian Design Principles

• The pedestrian environment should provide good places. Good design should enhance the look and feel of the pedestrian environment. The pedestrian environment includes open spaces such as plazas, courtyards, and squares, as well as the building facades that give shape to the space of the street. Amenities such as street furniture, banners, art, planting and special paving, along with historical elements and cultural references, should promote a sense of place.

• The pedestrian environment should be used for many things. The pedestrian environment should be a place where public activities are encouraged. Commercial activities such as dining, vending and advertising may be permitted when they do not interfere with safety and accessibility.

• Pedestrian improvements should be economical. Pedestrian improvements should be designed to achieve the maximum benefit for their cost, including initial cost and maintenance cost, as well as reduced reliance on more expensive modes of transportation.

Figure 9: Street environment showing two different conditions prioritising pedestrian movement
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Figure 9: Street environment showing two different conditions prioritising pedestrian movement
Precinct Plan
Spatial Development Vision

The Spatial Development Framework promotes a compact urban form for Midvaal through a nodal hierarchy. It recommends that existing informal settlements should be contained to their current extent to enable formalization and upgrading, and new areas for low income settlement development should be identified proactively and serviced in terms of specific agreed guidelines for future development and the provision of non-residential, social and community uses. In the formal urban areas, densification is promoted in and around nodes and subject to availability and capacity of engineering services.

(Source: Midvaal Local Municipality, Draft Integrated Development Plan 2010-2011)

Sicelo forms part of the Meyerton node and as such needs to be consolidated and integrated to improve the long-term sustainability and liveability of the area.

In that context the spatial vision for the precinct is:

*to create a well integrated and sustainable precinct with a particular character reflective of the community and infusing pride and a sense of ownership in residents. The environment should be walkable and user friendly.*
Development Concept

The proposed Urban Design Framework for the precinct builds on the strength of the existing formal and informal activity patterns and connections and proposes a development approach that can deliver a more sustainable environment guided by the following principles:

1. Improve vehicular and pedestrian accessibility to key destinations in Meyerton and within Sicelo
2. Promote the diversification and consolidation of land uses around existing commercial nodes
3. Provide community facilities that are centrally located easy to access by local residents
4. Promote the development of community focus areas where people come together to engage on civic issues and socialize
5. Establish a hierarchy of place with different roles and uses
6. Improve the environmental conditions by introducing landscaping along roads and parks strategically located to serve the current and future population
7. Provide adequate services to support the current and projected population
8. Improve public transport facilities to enhance mobility and access to work opportunities
9. Support the development of small local enterprises and other forms of employment creation.
10. Strive to create a cleaner environment by recycling domestic refuse and controlling industrial pollution

Informal housing on the northern side of the precinct side needs to addressed through the provision of appropriate accommodation to suit residents’ needs.
Principal Connections

Precinct plan (Map 10)
The approach is to consolidate development around private and public initiatives and in that way maximise the impact that investments can make in improving the livelihood of local residents. It is also to allow for the incremental densification and intensification of land uses where possible to enhance the long term sustainability of the precinct.

The components of the plan include:
1. A system of connections
2. Character zones
3. Edges definition

The system of connections
The development of the proposed road infrastructure is paramount to the upgrading of the area. The proposed Midvaal Spine, conceptualized as an activity corridor, will provide direct access to new industrial, commercial and residential areas.

The roads should be designed in such a way that they do not become barriers between the different residential neighbourhoods but rather integrate and connect these, providing facilities for buses and taxis, cycle tracks, landscaping, parking and generous sidewalks for pedestrians. They should be well lit and safe to move through, with appropriate street furniture, safe pedestrian crossings and signage to appropriate standards, responding to the vision for the precinct.
Character Zones

The intention is to consolidate the character of the different areas and neighbourhoods through the introduction of new facilities or by reinforcing the existing such as:

1. Sports, recreation and education node
2. The proposed gateway commercial and mixed use area at the intersection of Johan le Roux Street and the future Midvaal Spine
3. Church
4. The White House
5. The Station Road link including a pedestrian bridge and a well-demarcated pedestrian connection as a tree-lined boulevard system

Figure 13: Character zones defined by existing facilities
Edges Definition

The precinct interfaces with industrial and agricultural uses and a provincial road. These land uses and activities define the edges of the precinct which, if developed in a positive manner, could contain and protect existing and future residential neighbourhoods.

These edges require specific treatment:

- **Northern edge**: a regional park taking advantage of the watercourse and the flood line areas, which are not suitable for development but can be utilized as recreational spaces, is proposed.
- **Eastern edge**: this needs to be protected and turned into a safe edge along the freeway by introducing a robust fence, which could include art work in some sections, to protect pedestrians from crossing at level.
- **Western edge**: this can be treated as a more permeable and softer edge interfacing with Meyerton Farms. The proposed railway line, "The Freight Ring" planned by Transnet, if built in the future will constitute a definitive barrier like the R59.
- **Southern edge**: Metalloys Ltd forms the southern boundary - the interface with the industrial park is defined by a green belt which needs to be reinforced to screen and limit pollution emanating from the industrial activities.

Figure 14: Edge conditions
Structuring Elements and Design Guidelines

The precinct plan is structured by specific elements. Their configuration, components and design respond to design guidelines identified for each of them.

Furthermore, these guidelines provide the basis for the future consolidation of the precinct and aim at informing the detailed design and implementation of critical components. The elements are accessibility, land use and activity, open space and landscaping, built form and service and infrastructure.

Accessibility

The Precinct plan layout proposes a road network with a clear hierarchy promoting integration with the existing urban fabric of Meyerton, as well as future residential and commercial development within Sicelo.

Primary connections
- Les Maximes Drive
- Johan Le Roux Street
- Midvaal Spine/Alma Road
- Community Spine/Bell Road

Figure 15: Connectivity concept
Structuring Elements and Design Guidelines

Access Roads

Residential access roads should be design to provide:
• for slow moving traffic
• adequate sidewalks to accommodate pedestrians
• a street environment that can be used as a community room, meetings place for local Residents

Pedestrian network
• Design for permeability and maximizing pedestrian connections to promote integration between residential areas
• Define pedestrian routes along desire lines following existing movement patterns, to reduce walking time
• Establish clear pedestrian routes connecting main destinations such as the Meyerton railway station, commercial centres, taxi ranks and community facilities.

Public transport and NMT
The precinct lacks the critical mass of population to warrant the development of substantial public transport facilities at present. However, the principle should be to locate future facilities within the Gateway node and the White House Community Cluster. These facilities should be accessible by properly structured NMT routes extending into residential access roads.
Proposed and Existing Roads Network

Map 7: Proposed and existing roads network
Land Use Activity

Currently the study area lacks intensity in term of critical residential population to support other commercial development and community facilities. The precinct plan proposes a land use distribution which has a strong focus on residential provision. The pie chart (figure 17) indicates the percentage allocated to different uses which is not strictly in accordance with South African planning standards. However, the intention is to look at ways of integrating facilities to provide a more viable and vibrant place.

Proposed land uses

- **Commercial**
  - accommodated primarily on private land
  - strategically located at intersections of main access roads
  - Commercial activities should be encouraged along community spine
  - Corner shops and neighbourhood facilities should be integrated in the fabric of residential areas close to public transport routes

- **Industrial**
  - Restrict industrial to existing activities at their current extent

- **Mixed use**
  - Provide some lower order community facilities and mixed-use commercial opportunities to support the consolidation of the new neighbourhood

Figure 17: Sicelo land use distribution
Land Use Activity (continued)

- **Community Facilities**
  - Provide key community facilities such as an integrated primary and high school, and smaller facilities such as crèches and churches evenly distributed, in consultation with the community.

- **Residential**
  - The study area could accommodate 5000 dwellings with an average density of 25 – 30 units per ha provided that existing residential sites are sub-divided and the land identified by province is developed in line with current thinking.
  - Development should include a range of housing and tenure options with medium density along the community/activity spine (Bell Road) and in close proximity to the White House.
  - New housing should be placed close to the street front to allow for extensions to accommodate rental units or secondary dwellings.

**Figure 18: Housing options and opportunities for backyard development**
Urban Design Framework
Open Space and Landscaping

The proposed open space interventions follow the key planning guidelines in the CSIR’s ‘Guidelines for Human Settlement Planning and Design’, including the importance of continuity of green space systems to promote ecological diversity, the inclusion of sports facilities and passive recreational spaces which take advantage of existing natural features and the use of land for urban agriculture to provide food for community members and act as an area of visual relief without the cost of maintaining a public open space. The intention is to integrate existing forest and groves into the park system by:
- promoting an even distribution of public open spaces to serve the different residential neighborhoods
- developing new neighborhood parks with indigenous vegetation
- examining the potential of shared communal spaces to maximize the open green spaces available to residents.
- encouraging the development of food gardens in the communal and other suitable spaces along the green belt.

The following interventions are proposed:
1. Regional park
2. Linear park
3. Neighbourhood parks
4. Pocket parks
5. Tree-lined streets
6. Landscaping

Figure 19 shows examples of regional neighbourhood and pocket parks as well as the use of land for urban agriculture.
Open Public Spaces and Storm Water

Key:
- 50-100 Year flood area
- Proposed public open space
- Sports and recreation South A, partnership between city and community
- Storm water attenuation /retention areas

Note: Contours every 5m.
**Built form**

- Generate a housing fabric that maximizes connections, reinforces human scale and moves away from large land parcels such as those in the adjacent areas that block movement and inhibit activity.
- Introduce a range of building types to promote diversity and choice in terms of housing options.
- Buildings should be oriented towards the street to improve surveillance and animate the environment.
- The use of high security walls should be discouraged – instead promote the use of fences and well-designed street edges.
- Special care should be taken in the design of community facilities to ensure that they convey a sense of civic and community pride.
- There is no need to create a consistent architectural expression. What is important is:
  - building placement
  - building scale
  - passive surveillance
  - siting and orientation
  - encourage the creativity of the local community to personalise their living environment

**Services and infrastructure**

- Ensure sufficient water and sewerage infrastructure to allow for household extensions and second dwellings on all sites.

*Figure 20: Built form examples from the area*
Sicelo Precinct Plan
Phasing Plan

Phase 1
The initial phase will include the development of public sector driven projects addressing the housing shortage and the relocation of people living in unsafe areas. This will also include some of the catalytic projects such as the White House which is described in more detail in section 8.

Phase 2
This phase will encourage the participation of the private sector in the provision of housing and commercial development.

Phase 3
This incorporates the long-term vision for Sicelo illustrating the consolidation of the entire area, with a balanced distribution of social and commercial facilities and well-developed public open spaces. It also shows the potential railway line and potential extension of the precinct to the north-west.
Catalytic Projects
Catalytic Projects

The Midvaal Integrated Development Plan 2010 - 2011 identifies a large number of new and upgrading infrastructure and facilities projects for Wards 8 and 10.

They include:

**Ward 8**
- Construction of K205 K210 access route
- Streetlights
- Construction of transfer station
- Cemetery upgrading of parks
- Community hall
- Permanent clinic
- Old age home
- Bridge over R59
- Electricity
- Pay point
- Sports and recreation facilities
- Traffic patrolling at schools
- Storm water - Bell Road
- Access to water
- Primary school
- Library
- Disability centre

**Ward 10 (continued)**
- Permanent clinic
- Schools
- Sports facilities
- Access to water
- Sicelo multi purpose centre phase 2

The precinct plan incorporates most of these projects, although there are no immediate prospects for many of them due to financial constraints.

Four proposed catalytic projects have been identified to guide development over time. Three of them are related to infrastructure development and may take a long time to be implemented due to budgetary constraints. The fourth is the White House Community Facility Cluster, which will incorporate many of the social facilities listed in the IDP as needed in both wards.
Pedestrian Bridge

This will be a critical component of the development, providing a safer pedestrian route to the station located on the Meyerton side of the R59. The design illustrated in figure 19 is indicative of the opportunity for this bridge to become a landmark announcing the presence of the reconfigured precinct. This project is regarded as one of the most important interventions which will contribute to making a better connection between Meyerton and Sicelo. It will improve the safety of pedestrians moving to and from the railway station located in Meyerton. The design of the bridge will respond to road engineering standards which will cover all safety and structural components.

It also presents an opportunity to mark this connection symbolically, the precedents identified (see Figure 23) are local and from abroad. These designs represent best practice examples and illustrate some of the road design principles described below.

Design Principles
1. The access ramps should be accessible to people with disabilities, children and the elderly. It should also allow easy access for trolleys and bicycles.
2. Minimum width should be no less than 1200mm for uninterrupted movement excluding space for trees, street lighting and road signage.
3. Lighting should be provided along the pedestrian route connecting with the bridge.
4. There is an opportunity to build an iconic structure to mark the connection and enhance the sense of place.
Pedestrian Bridge (continued)

5. Landscaping and tree planting should be incorporated along the pedestrian route leading to the bridge.
6. Directional street signage of any kind should be controlled to make sure that does not affect visibility and movement of pedestrians especially at intersections.
7. Bell Mouth and ramps should be incorporated at street corners with facilities for blind people.

Pedestrian Connection to the Bridge

Station Road should be designed to complement the design of the bridge extending the amenities to support the pedestrian movement.

1. Sidewalks should be a minimum width of 1200mm.
2. Paving should consist of durable and easy to maintain material which is locally produced.
3. Provide adequate street lighting at maximum spacing spacings of 40m.
4. Provide sittings and waste bins at 30m centres.
5. Planting of indigenous trees should be promoted at 10/15m centres with supporting landscaping to enhance the quality of the environment.
6. The connection along Station Road should incorporate the bicycle track extending from Bell Street to the Railway Station.
7. Provide facilities for street markets and other trading spots.
8. Incorporate signage and public art.
Mobility Spine

This is the main activity corridor running north south and providing direct access to potential work opportunities in the north. Figure 24 illustrates the designing tensions showing the development of this future main arterial as a user friendly mobility road with amenities for cyclists and pedestrians. The main principle is to design this road in a way that provides a positive interface with the land uses located along it and integrate rather than divide the area.
Community Spine

Figure 25: Community Spine
Community Spine (continued)

This will be the focus of community life connecting social facilities and allowing for mixed use activities animating the full length of the boulevard-like street.

This conceptual section as illustrated in Figure 25 shows the potential for the street to become a pedestrian friendly environment framed by community facilities and a range of housing types open to the street. Bell Road provides the main connection from Johan Le Roux to Station Road and to the White House. The Design intentions include:

1. To provide a quality and safe environment for pedestrians while accommodating vehicular movement, parking and public transport.
2. Provide a cycling track on the side of the road.
3. Provide street lighting at regular spacings.
4. Incorporate facilities for trading at strategic locations provided they do not compromise access to individual sites.
5. Incorporate landscaping, street furniture at regular spacings, information boards and public arts where possible.
White House Sub-Precinct

As indicated in the status quo report the ‘White House’ in ward 8 is a building of architectural interest, which has been used as an NGO community centre. Previous activities include a crèche, drop in centre for children, day care centre for the elderly, workshop for the disabled and a youth help desk and job centre. The building is currently empty. It was proposed that the building and environs be renovated and upgraded to support similar activities.

The house itself could accommodate a crèche, training room, meeting room and office space, while an amphitheatre, a children’s playground, sporting facilities, a community market, taxi rank, and agricultural training area could all be accommodated in the surrounding land parcels. At a later stage a police station, filling station and commercial development could be incorporated to consolidate a vibrant sub-precinct facing Bell Road.

Figure 26: White House site plan indicating proposed land parcels
Site Plan (figure 26)

The site plan indicates the potential sub-division of the existing land around the White House into smaller land parcels to accommodate the incremental upgrading of the existing building and the development of the other proposed components.

Architectural design parameters

- Retain the character of the existing house
- New buildings should be guided by green building principles in terms of orientation and use of renewable materials
- Buildings should be robust and easy to maintain

Implementation framework and mechanisms

The sub-precinct would be developed in 2 phases as illustrated in figures 27 and 28.
White House Phase 1

Figure 27: White House phase 1
White House Phase 2

Figure 28: White House phase 2
White House with square

Figure 29: White House with proposed square in the foreground
Implementation Strategy
Implementation Strategy

Projects and phasing

The phasing strategy is being devised in conjunction with the engineering services and will form the content of a separate report.
Conclusion and Recommendations
Conclusion and Recommendations

The precinct plan provides the armature to enable future development and can be used as a tool to build public-private partnerships to create a sustainable, pedestrian friendly and supportive environment where people can live and work in cooperation with one another.

Lessons learnt:
Working with the community and their representatives was stimulating and informative. Unfortunately the decision making process was slow and uncertain with a limited access to the information at critical stages that could have assisted in completing the work timeously.

However the response from the different departments was positive and at the end of the process supportive of what we proposed.

Recommendations:

The location of the community facilities such as schools and old age homes are in the process of being confirmed. The Department of Education has identified sites that can be secured to accommodate a primary and secondary school serving both wards. Further negotiations have been undertaken to continue with the housing delivery process and infrastructural development which will contribute to consolidating the area.

The White House Precinct could provide the basis for the development of a community cluster that could attract funding from the public and private sector. This is an important component and concerted effort should be made to ensure that the vision and potential of this node is realised. The sustainability of the precinct will require further residential densification to support increasing residential densities.
Annexures
Annexure 2: Site areas for densification

- **A1**: Existing 26 Du/Ha
- **A2**: 6 Du/Ha
- **A3**: 7 Du/Ha
- **B**: As per Housing Dpt Layout
- **C**: Proposed 26 Du/Ha
- **Possible land use to be confirmed**
Annexure 3: Site areas for proposed schools

Possible location of Primary School
Erf 130 + 131

Possible location of High School
Erf 108, 109 + 110