19. CITY PLANNING, DEVELOPMENT AND REGIONAL SERVICES DEPARTMENT 
(CITY PLANNING AND DEVELOPMENT DIVISION) 
REPORT ON THE INTERGRATED COMPACTION AND DENSIFICATION 
STRATEGY FOR PRETORIA WEST RESIDENTIAL PRECINCTS LOCATED IN 
THE CENTRAL WESTERN REGION. 
(From the Mayoral Committee Cluster: Infrastructure Development: 
16 October 2009 and the Portfolio Committee: City Planning, Development 
and Regional Services and Economic Development: 10 November 2009 and 
the Mayoral Committee: 2 December 2009) 

1. PURPOSE OF THE REPORT 

The purpose of this report is to seek approval of the proposed Local Integrated 
Compaction and Densification Strategy for Pretoria West Residential Precincts, 
compiled from March 2008 to July 2008, located within the Central Western Region 
from Council. 

2. STRATEGIC OBJECTIVES 

The purpose of this (ICDS) Integrated Compaction and Densification Strategy is to 
ensure harmonious, co-ordinated and integrated residential development in and 
around the Pretoria West Area. 

Strategic objectives to be achieved in line with the 5 year strategic plan are to: 

- Provide basic services and develop infrastructure; 
- Encourage economic growth and development; 
- Build safer, viable and sustainable communities; and 
- Provide caring and effective government. 

These are to be achieved by using the Pretoria West Local Integrated Compaction 
and Densification Strategy to give effect to City of Tshwane’s main objectives: 

- To consider the relevance of this area as a densification focus area from a 
  metropolitan and regional perspective; 
- To identify the opportunities that exist for densification; 
- Identify the constraints that exist that could negatively impact on meaning full 
  densification; and 
- Make proposals with regard to land uses, design principles and the overall 
  improvement of the quality of the environment. 

The desired outcome is that this intervention will allow for harmonious and optimal 
development of the concerned settlement.
3. BACKGROUND

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City. This area, which was established in 1892, is one of the oldest townships in Pretoria. When established, this area was a residential suburb, but over the years the character of the area has changed to that of a mixed-use area comprising restricted industrial developments, business, flats and single residential areas.

Three so-called residential precincts remain in the area. Although these precincts still comprise predominantly single residential developments, a number of higher-density developments as well as non-residential developments have taken place which is slowly changing the character of the area.

A previous framework for the Pretoria West area, namely the Pretoria West Spatial Development Framework, 2003, included the three residential precincts as part of the study area, but at that time this framework merely proposed that the residential character of these areas should be retained and strengthened, but did not provide any specific development guidelines for these precincts.

The change in the character of the area and the strategic location of the area, coupled with the development principles put forward in documents such as the Tshwane Metropolitan Spatial Development Framework as well as the Regional Spatial Development Framework for the Central Western Region, has compelled the City of Tshwane to investigate the future of these three precincts from a densification perspective. This has led to the appointment of consultants to draft the Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts.

4. EXECUTIVE SUMMARY

4.1 Locality

The study area comprises three residential precincts in the Pretoria West area, situated between D.F. Malan Drive, Buiten Kant Street, Mitchell Street and Vom Hagen Street. The study area excludes the Mitchell-, Soutter-, Church- and Vom Hagen Streets commercial spines, as these formed the subject matter of the Pretoria West Spatial Development Framework, 2003.

4.2 Population and Demographics

The population in the study area is relatively young with the most residents in the 20 – 34 years age group. In relation to the rest of Tshwane, there are fewer children and elderly people in the study area.

The majority of the population (62%) has a Grade 12 or higher education, which is much higher than the average for Tshwane (48%)

The estimated average annual household income in 2008 is R130 000,00. Only 10% of the population is regarded as unemployed, compared to the 22% average in Tshwane as a whole.
The largest portion of the population (57%) rent their dwelling-unit, which is much higher than the Tshwane average of 20%. The study area can be regarded as a predominantly rental area, as is the case with Sunnyside, Arcadia and Pretoria Central.

The largest portion of the population (26%) moves on foot, which is higher than the 9% average for Tshwane as a whole. This is mainly due to the central location and number of job opportunities available in the area. Transport by means of bus is also an important mode of transport in the study area (13%) against the 7% average for the City.

The average household size in Pretoria West is 3.3 persons. 29% of households comprise only one person and 43% of the households comprise between 2 and 3 persons, 17% of the dwelling units in Pretoria West comprise of only one room, and 44% of the population comprise between two and four rooms.

4.3 Rationale for Densification

Looking at the statistics presented above there is a clear indication for a need to provide more affordable and versatile accommodation in the Pretoria West area through densification. Therefore because the area is strategically located close to the CBD and in close proximity to the educational institutions as well as places of economic activity or opportunities, this is an ideal place to accommodate densification.

However the development vision for the Pretoria West area goes beyond merely the issue of densification, it should benefit the residence and it should be meaningful. Therefore meaningful and successful higher density environments go hand-in-hand with the concept of creating sustainable neighbourhoods. Without the creation of a sustainable neighbourhood, densification will result in unpleasant, bland and unsustainable neighbourhoods. The concept of sustainable neighbourhoods is a holistic one, aiming to classify the living conditions within which all people can pursue dynamic and meaningful lives that simultaneously optimise the use of natural resources.

Ultimately, this strategy is about the neighbourhood and improving the neighbourhood to the extent that it begins to have a positive impact on the lives of the community and that lasting social and/or economic change is ensured in the area. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable communities through design.

- Creating socially cohesive and diverse communities through a mix of housing types and employment opportunities;
- Promoting alternative transportation and energy;
- Promoting efficient use of resources;
- Locating residential areas close to recreational and commercial services with pedestrian and cycling connections; and
- Creating a safe environment through the application of the "Crime Prevention through Environmental Design" principles.
The benefits of a Sustainable Neighborhood are:

- Healthier living environments;
- Reduced cost for heating and cooling (if environmentally friendly building practices are adhered to);
- Local employment opportunities;
- Safe and livable environments; and
- Access to public transport.

5. COMMENTS OF THE STAKEHOLDER DEPARTMENTS

5.1 COMMENTS OF THE STRATEGIC EXECUTIVE DIRECTOR: CORPORATE AND SHARED SERVICES

5.1.1 LEGAL SERVICES

(Unaltered)

We wish to comment as follows:

'Since the report contains no legal factors to comment on, we concur with the content and subsequent recommendations made therein'.

5.2 COMMENTS OF THE STRATEGIC EXECUTIVE DIRECTOR: PUBLIC WORKS AND INFRASTRUCTURE DEVELOPMENT

5.2.1 WATER AND SANITATION

(Unaltered)

Study Area 3 precincts 3 falls under Finlay Reservoir Zone. There is a scheduled water network replacement in Pretoria West during 2008/09 financial year. The construction will commence next year February. The construction will cover the following area including Study Precincts 3.

DF Malan Drive from Mitchell Street until Tshwane Fresh Produce Market; North of Mitchell street until Vom Hagen Street; and West of DF Malan Drive until Schutte Street.

According to the Division's Master Plan, the current AADD (Average Annual Daily Demand) for Findlay Reservoir is 25 450 kl/d (kilo litres per day) and the future AADD is 34 474 kl/d. The above-mentioned water consumptions are based on the current land uses. This means that the proposed densification water demand must be less than 9 024 kl/d.

The current sanitation services will have to be upgraded in some particular sections with any densification or change in land use.

Study Area Precincts 1 and 2 falls under Heights High Level Reservoir Zone. The existing water network is old Asbestos Cement (AC) pipes and it will have to be upgraded to PVC pipes with any densification or change in land use.
According to our current Master Plan, the current AADD (Average Annual Daily Demand) for Heights High Level Reservoir is 3 616 kl/d and the future AADD is 5 015 kl/d. This shows that the available capacity for Heights High Level Reservoir is 1 399 kl/d. The above-mentioned water consumptions are based on the current land uses.

The current sanitation services will have to be upgraded in some particular sections with any densification or change in land use.

5.2.2 ROADS AND STORM WATER

5.2.2.1 INFRASTRUCTURE PLANNING AND MANAGEMENT

(Unaltered)

In principle this Division has no objection to the proposed densification strategy.

The following comments are applicable from a development facilitation perspective:

The densification of the area will take affect via the changes in land use applications. This Division will evaluate and support such applications based on certain conditions related to roads and stormwater infrastructure as may be applicable.

It can be noted that the applications will be subject to the levying of bulk engineering services contributions as per policy adopted by the Council on 28th October 2004.

The following comments are applicable from a roads planning point of view:

During 1993, Council has approved an east/west link through the study area linking the N4-West freeway with the Proes/Struben/Boom/Bloed one-way system. The proposed link was scaled down by this Department during 2000. It affects the area planning and should be indicated on the proposed densification strategy. The plans are available in electronic format at Mr Danie Chalmers office (from the Roads and Storm water Division).

It should further be noted that as proposed in the document, a detail traffic management plan should be compiled for the study area. The proposal is supported and the study should be undertaken, to ensure that the anticipated future traffic can be accommodated on the road network of the area.

The content of the draft report is therefore supported.

5.2.2.2 TRAFFIC ENGINEERING AND OPERATIONS

(Unaltered)

Your letter dated 11 July 2008 referring to the Draft Pretoria West Integrated Compaction and Densification Strategy that has been made available on the Intranet, refers.

This Division supports in principle the Draft Integrated Compaction and Densification Strategy developed by City Planning, Development and Regional Services Department for Pretoria West.
However, please find attached a few cosmetic changes to the report that we consider important enough to be incorporated into the report.

Public Transport Facilities and Densification

Transit Oriented Development (TOD) focuses on the integration of major public transport facilities with the urban development. The aim is to create compact, vibrant walkable communities around high quality public transport systems (e.g. train stations). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development and progressively lower-density spreading outwards.

Movement System and Public Transport

The east-west road system comprises a number of major routes such as Mitchell Street, Soutter Street, Church Street and Vom Hagen Street, which has a strong impact on the spatial structure of the area. The land use adjacent to the major east-west streets have all been developed for commercial purposes. Because of the location adjacent to the Inner City, the general character of these commercial streets tends to lean more towards an urban rather than a suburban character.

The north-south routes tend to be more local, with only Rebecca Street linking this area with the areas to the north of Vom Hagen Street.

There is a north-south railway line running through the centre of the study area, which forms part of an extensive rail network in the region. This line forms a strong barrier between the eastern and western part of the study area. This is a commuter rail network, with a station at Schutte Street.

This railway line links up with Pretoria Station, from where the proposed Ring Rail System as well as the Gautrain can be accessed.

The station facilities are however in a state of decay, with very inconvenient and in fact outright dangerous pedestrian access to the station via a hidden pedestrian walkway behind the school. This situation needs to be addressed.

Although road based public transport such as mini-bus taxis utilize a number of roads in the study area, Church Street is considered to be the major public transport route running through the area. This road then also runs midway through the three precincts. Church Street is also proposed as an "enhanced" Bus Rapid Transit (BRT) route for phase I of the proposed BRT system.

In terms of the Tshwane Strategic Public Transport Plan and Network, 2007, Church Street is classified as a Class 2 public transport route, while Vom Hagen-, Rebecca-, Soutter-, Mitchell- and Buitenkant Streets are classified as Class 3 routes.

5.2.3 ENERGY AND ELECTRICITY

(Unaltered)

We have perused the study and the Pretoria West report with regards to the Compaction and Densification Strategy and we wish to comment as follows:
It should be noted that electricity load forecasting was to a large extent based on two things namely the area and position of average stand per location of the area with regards to residential or commercial zoning and it is also given that the Compaction and Densification Strategy emphasises on the cluster and high rise residential housing. It thus follows that the electricity bulk load within a given area will be severely strained because the area will be uniform but the housing and electricity consumption will be expanded horizontally hence the demand will also be increased.

The electricity bulk network has peaked and to sustain, reduce backlog and create new electricity bulk for new development (170 MVA p.a.) within CoT supply area the sum of R319 million is required per annum over a five year period.

The Division has also appraised the Pretoria West Densification Framework Report and it was established that the Supply Substation (Tunnel) has only 0,31MVA available spare capacity. It is recommended that the Substation be upgraded from 35MVA to 70MVA at estimated cost of R44 million to accommodate the proposed development.

The Developers must be encouraged to install a concrete slab roof to the high rise buildings and the roof must have an unobstructed exposure to the sun. This area of the roof must be used by the Developers to install solar water heaters (geysers) to service the entire building.

The Energy and Electricity Division supports the Compaction and Densification Strategy but the budgeting for the bulk electricity infrastructure must be ciphered and be ring-fenced by Finance Department at least two years before the commencement of the proposed development.

5.4 COMMENTS OF THE STRATEGIC EXECUTIVE DIRECTOR: CITY PLANNING, DEVELOPMENT AND REGIONAL SERVICES

5.4.1 CITY PLANNING AND DEVELOPMENT

5.4.1.1 REGIONAL SPATIAL PLANNING

(Unaltered)

Reference is made of the land use rights of the erven in the study area. However, the zoning reflected in the document should preferably be done in accordance with the definitions and terminology of the Tshwane Town-planning Scheme, 2008, as it has already came into operation on 19 June 2008.

In Chapter 5 the document further deals with Land uses and development controls and correctly refers to the Tshwane Town-planning Scheme, 2008 and the related land uses as defined therein.

5.4.1.2 DEVELOPMENT COMPLIANCE

(Unaltered)

The approval of this strategy will provide critical decision making guidelines with respect to land use law enforcement. The clearly defined residential component will be protected against illegal uses of land and the relevant courts can be approach to interdict uses that is not supported by the strategy.
5.5 COMMENTS OF THE STRATEGIC EXECUTIVE DIRECTOR: ECONOMIC DEVELOPMENT

(1) FRESH PRODUCE MARKET

The strategy is linked to the broader City of Tshwane compaction and densification strategy and also to Gauteng Spatial Development framework which addresses the critical factors for development in the province. The Legislative and institutional framework are also quoted in the draft strategy. The questions around the long term process with opportunities to restructure the city to be able to respond positively to challenges and improve the city’s performance are also addressed in the draft strategy. The strategy is therefore supported.

5.5.2 TOURISM

The Tourism Division has read the above mentioned document and is in support of this report since the Compaction and Densification Strategy for the City of Tshwane seem to be in line with one of the fundamentals in the City Strategy that alludes to the principle that the restructuring of the urban environment must be done in such a way that people’s lives are improved through better and more equal access to economic and social opportunities.

Another aspect that is supported is that the document indicates that the implementation of this strategy will increase the Marketability of the City. The document states the following in this regard:

“The physical urban environment of a city, including its quality and liveability, plays a major role in its competitiveness. In addition to this the message that potential investors get from a city that seems under control and functions well is that it is well planned and managed in an integrated way. The aim is to ensure a density of development that can facilitate sustainable economic development, job growth and income generation.”

The principles and fundamentals that allude to economic and social opportunities as well as the facilitation of sustainable economic development, job growth and income generation are supported. The main challenge will always remain the implementation of strategies such as the Compaction and Densification Strategy.

5.5.3 LOCAL ECONOMIC DEVELOPMENT

The strategy is aligned to the CDS and TGDS imperatives in as far as the regeneration of economic nodes in concerned, hence from an LED point of view the implementation of this strategy stands improve the locational advantages and profile of the city particularly the economically depressed area of Pretoria-West nationally, regionally and internationally. This would have multiplier effects which would in turn improve the city’s marketability as an ideal place live in and do business, and this profile will enable the city to attract increased number of businesses which would return create the much needed jobs and economic growth.

Local Economic Development has taken cognisance of the contents of the report, and hereby supports the intended action and recommendations.
5.5.4 BUS SERVICES

No access to intranet. Therefore could not comment.

5.5.5 PUBLIC PARTICIPATION

The Ward Councillors for wards 3 and 60 on which the proposed Local Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts falls were invited to a presentation on the 3rd and 19th of March 2009 at which the contents and intentions of the proposed Local Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts were to be presented. The Local Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts also distributed to the affected Ward Councillors in March 2009. Attendance registers and comments received are included in Annexures C and D of this report.

5.6 COMMENTS OF THE CHIEF FINANCIAL OFFICER

(Unaltered)

Cognisance is taken of the contents and recommendations of the report.

The purpose this report is to seek approval of the proposed Local Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts, compiled from March 2008 to July 2008, located within the Central Western Region, from Council.

It is not clear from the report what the exact financial implications will be with the integrated compaction and densification strategy for Pretoria West Residential Precincts. Once the full financial implications have been calculated and elucidated in a report, this department will render meaningful financial comments on the availability of funds.

It should be noted that the budget of the CoT is a balanced budget which means that no surplus or deficit exists. Therefore, all additional financial implications for the CoT will have to be managed within the approved Medium-Term Revenue and Expenditure Framework. Any additional budgetary needs will have to be managed by means of identifying saving, reprioritising of functions and efficiency gains.

6. COMMENTS OF THE WARD COUNCILLOR, WARD 60, COUNCILLOR J MKHIZE

Comments have been received from the Ward Councillor for Ward 60, Councillor J Mkhize and it is attached as Annexure C.

7. IMPLICATIONS

7.1 HUMAN RESOURCES

There will be human resource implications during the implementation phase of certain proposals relating to the ICDS (Integrated Compaction and Densification Strategy).
7.2 FINANCES

Service departments have indicated that great investment will need to be put into the development of service infrastructure in order to realize the proposals of the proposed ICDS (Integrated Compaction and Densification Strategy). This will have to be financed by both the private and public sector. Budgets should be linked to the IDP.

7.3 CONSTITUTIONAL AND LEGAL FACTORS

There are none.

7.4 COMMUNICATION

The ICDS (Integrated Compaction and Densification Strategy) was presented to the relevant Ward Councillors and the contents were made available for comments (3 and 19 March 2009). The draft Strategy was forwarded to the Internal Departments for comments.

7.5 PREVIOUS COUNCIL AND MAYORAL COMMITTEE RESOLUTIONS

The draft ICDS (Integrated Compaction and Densification Strategy) is in line with the Regional Spatial Development Frameworks for the City of Tshwane that was approved on 30 October 2008.

8. CONCLUSION

The ICDS (Integrated Compaction and Densification Strategy) has been taken through a comprehensive public participation process. The Strategy is a comprehensive and multi-disciplinary Integrated Compaction and densification Strategy for Pretoria West area located within the Central Western Region, in order to manage and ensure harmonious, coordinated and integrated future land use development in the area. The Strategy should be approved as it gives effect to the CoT Strategic Objectives and will allow for harmonious and optimal development of the applicable Pretoria West area and shall provide the basis for further detail precinct and nodal plans that shall emanate from this Integrated, Compaction and Densification Strategy.

ANNEXURES:

A. Study Area Plan.
C. Comments received from Ward Councillors.
D. Public Participation Attendance Registers.

During discussion of this item by the Portfolio Committee: City Planning, Development and Regional Services and Economic Development at its meeting held on 10 November 2009, the Chairperson, MMC S Pillay requested that the Strategic Executive Director: City Planning, Development and Regional Services in cooperation with the Executive Director: Legal Services draw up a discussion document to assist Courts to decide on building regulations transgressions.
RESOLVED:

That the Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts be approved.
INTEGRATED
COMPACTION
AND
DENSIFICATION
STRATEGY
FOR
PRETORIA WEST
RESIDENTIAL
PRECINCTS

2008

CITY OF TSHWAN!
"A. A. H. R."
Prepared for the
City of Tshwane Metropolitan Municipality
by
Riana du Plessis Urban Planners
and
Gary White and Associates Architects and
Urban Designers

July 2008
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CHAPTER 1: INTRODUCTION

1. BACKGROUND

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City. This area, which was established in 1892, is one of the oldest townships in Pretoria. Originally this area was a residential suburb, but over the years the character of the area has changed to that of a mixed-use area comprising light industrial developments, business, flats, and single residential precincts.

Three so-called residential precincts remain in the area. Although these precincts still comprise predominantly single residential developments, a number of higher-density developments as well as non-residential developments have taken place which are slowly changing the character of the area.

A previous framework for the Pretoria West area, namely the Pretoria West Spatial Development Framework, 2003, included the three residential precincts as part of the study area, but at that time this framework merely proposed that the residential character of these areas should be retained and strengthened, but did not provide any specific development guidelines.

The change in the character of the area, the strategic location of the area and development principles put forward in documents such as the City Development Strategy, Tshwane Metropolitan Spatial Development Framework and the Regional Spatial Development Framework for the Central Western Region have compelled the City of Tshwane to investigate the future of these three precincts from an urban regeneration and specifically a densification perspective.

This has led to the appointment of a consultant to draft the Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts.

2. STUDY AREA

The study area comprises three residential precincts in the Pretoria West area, situated between D.F. Malan Drive, Bulleenkant Street, Mitchell Street and Vorn Hagen Street. The study area excludes the Mitchell, Soutter, Church and Vorn Hagen Streets commercial spines, as these formed the subject matter of the Pretoria West Spatial Development Framework, 2003.

Refer to Figure 1—Study Area

For ease of reference, the three precincts have been numbered from 1 to 3.

3. PURPOSE OF THE STRATEGY

In terms of the project brief, the purpose of the strategy is to compile a comprehensive and multi-disciplinary Integrated Compaction and Densification Strategy for the Pretoria West Residential Precincts, in order to manage and ensure harmonious, coordinated and integrated residential development in and around these areas.

This Strategy must—

- Look at the relevance of this area as a densification focus area from a metropolitan and regional perspective;
- Identify the opportunities that exist for densification;
- Identify the constraints that exist that could negatively impact on meaningful densification; and
- Make proposals with regard to land uses, design principles and the overall improvement of the quality of the environment.
Pretoria West Integrated Compaction and Densification Strategy

Study Area

Figure 1: Study Area
CHAPTER 2: BUILDING A CASE FOR DENSIFICATION IN THE PRETORIA WEST CONTEXT

1. RATIONALE FOR DENSIFICATION

1.1. Efficiency and Sustainability

There are a number of acts and policies from National and Provincial Government across a range of sectors that provide directives and guidelines for the spatial and functional restructuring of South African cities. The key urban development objectives that are pursued in the national policy framework can be summarised as follows:

- Minimise unmanaged or unfocussed urban growth;
- Create opportunities for the densification of existing low density areas;
- Promote higher density and integrated environments with typical urban characteristics to balance suburban developments;
- Ensure that residents have access to a range of choices with regard to housing typologies as well as locations;
- Integrate residential development, movement systems, social facilities, employment opportunities and activity areas;
- Focus residential densification around areas of opportunity (employment opportunities, activity areas, transport opportunities etc.).

It is important to understand that densification and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Densification should therefore not be done for the sake of densification, but to achieve a range of other urban goals such as-

- managing the spatial growth of the city;
- enhancing access to economic and social opportunities;
- efficiency and cost effectiveness;
- supporting public transport and non-motorised transport;
- enhancing convenience and quality of life; and
- creating the necessary population thresholds to support viable commercial activities and community facilities within convenient walking distance of homes and places of work.

To achieve meaningful densification which is able to achieve the above-mentioned objectives, it is important to identify specific focus areas for densification in the city. Densification and compaction should not be a random exercise. The two main criteria for such areas are –

- Areas which are close to major areas of economic and/or social opportunity; and/or
- Areas adjacent to major public transport facilities.

In the majority of cases, responsible densification implies the redevelopment of existing, centrally or strategically located, low density residential areas. This can take place either through infill (utilising parcels of undeveloped or underdeveloped land) or complete urban renewal whereby existing structures are replaced by new higher density residential developments.

Urban infill development and redevelopment capitalises on mature infrastructure and captures economies of scale based on density.

1.2. Public Transport Facilities and Densification

Transit Oriented Development (TOD) focuses on the integration of major public transport facilities with urban development. The aim is to create compact, vibrant walkable communities around high quality public transport systems (e.g. train stations). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development and progressively lower-density spreading outwards.

The main components of Transit Oriented Design are –
The neighbourhood is designed for cycling and walking, with adequate facilities and attractive street conditions;
- Streets have good connectivity and traffic calming features to control vehicle traffic speeds;
- The public transport facility is a prominent feature of the neighbourhood;
- Mixed-use development that includes shops, schools and other public services;
- A variety of housing types and prices in each neighbourhood;
- High density development within 10-minute walking radius surrounding the public transport facility;
- Supporting public transport systems such as taxis and buses; and
- Parking Management to reduce the amount of land devoted to parking compared with conventional development, and to take advantage of the parking cost savings associated with reduced automobile use.

In terms of land use and transport integration, it is important to support residential densification and mixed land uses within a walking distance of 500 - 900 metres from major public transport routes and facilities. On the one hand, this increases the accessibility of a large concentration of residential population to public transport services, while on the other hand creating the necessary population thresholds to support a viable and efficient public transport system. The higher densities create adequate transit ridership to justify frequent and efficient public transport services.

Successful land use and transportation integration on local scale that contribute to quality environments is often best characterised by what is known as the “3Ds”: Density, Diversity, and Design, i.e. -

- Areas with medium- and high-density populations provide a critical mass of inhabitants to support shops and public services without requiring access by motorised vehicles. For this reason, a fortuitous circle of relationships exist between urban density, vehicle ownership, energy use, and vehicle emissions.

- Diversity refers to creating a mix of uses within a local area. By combining residential and commercial uses into a single area, the number of trips and the length of travel are both reduced. People are able to meet most of their daily needs by walking, cycling, or public transport.

- Design refers to the planning of housing, shops, and public transport in a manner that supports a reduced dependence on cars.

1.3. Lifestyle

More and more people begin to prefer urban living over the traditional suburban lifestyle. The primary incentive appears to be time. Daily commutes rob us of valuable personal time, cultural opportunities and community life. When precious free time can be spent enjoying the things we value most, instead of fighting traffic, our quality of life improves. Many are rediscovering the pedestrian joy found inside a city.

Many people are leaving a single larger home in favour of multiple smaller homes that allow for variety in their living accommodations: a pied-a-terre in the city and another smaller home out in the country. Simplifying life by downsizing and learning to live with less of the “stuff” that comes with a large house can translate to new freedoms.

"We have a challenge to provide, in those neighbourhoods where we can grow, enough density to ensure affordability. Enough density to leverage open public space. Enough density to provide vitality and vibrancy of neighbourhoods, while respecting the built fabric of adjacent communities.“

A.Burden

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1 Bus Rapid Transit Planning Guide June 2007, Published by: Institute for Transportation & Development Policy New York, USA

2 http://www.cdc.gov/nceh/publichealth/news/11140504.htm
2. SUITABILITY OF PRETORIA WEST AS A FOCUS AREA FOR DENSIFICATION

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City, to the west of G.T. Malan Drive. This area is a former low density residential area that has over the years undergone a gradual transition in character. Although large sections of the area are still exclusively residential, there is an influx of non-residential developments into the area.

The Tshwane Inner City is still the most significant economic node in the metropolitan area with the greatest number of employment opportunities.

While the Inner City has for many years been a fairly inactive development area with very little interest in the residential sector, over recent years the demand for residential accommodation in and around the Inner City has increased drastically. This is evident in the number of office buildings which are being converted into residential apartments. This trend of converting space meant for economic activity into residential apartments is undesirable. If these conversions continue to take place the balance between the various land uses in the Inner city could be disturbed, with the Inner city running the danger of becoming a high density residential suburb instead of a high order mixed-use activity centre.

In order to address the need for housing in the area, it is necessary to look at opportunities for redevelopment and residential densification around and in close proximity to the Inner City. The Pretoria West area is considered to be an ideal opportunity for such development. Not only is it directly adjacent to the Inner City, but it has over the years been increasingly characterised by urban decay. The area is considered to be ripe for redevelopment and urban renewal.

As such, the Regional Spatial Development Framework for the Central Western Region has identified the Pretoria West area as a focus area for residential densification.

In addition to its central and strategic location, the study area is also characterised by a number of public transport routes and facilities, the most important being –

- The north-south commuter railway line with the Schutte Street Station; and
- Church Street, which is a Class 2 Strategic Public Transport Route.

The presence of the station calls for an approach of Transport Oriented Development in the study area, as described in paragraph 1.2 of this chapter.

The socio-economic information for the study area (refer to Chapter 3) indicates that the study area is already highly dependent on pedestrian movement and bus transport as modes of transport.

The rationale for considering Pretoria West as a strategic densification area is founded in three characteristics of the area, namely:

- The proximity to a major employment and activity centre, namely the Tshwane Inner City;
- The proximity to major public transport opportunities; and
- The decaying character of the area which makes it ripe for urban renewal and development intervention.

3. DENSITY STANDARDS

There is currently not a specific South African national policy on densities, and different local and international publications advocate different density standards. It is therefore very difficult to provide an exact indication of the densities that should be achieved in certain locations.

The most important qualitative guideline is that density should relate to the accessibility of the locality. From a quantitative point of view, the
Prepared for the
City of Tshwane Metropolitan Municipality
by
Riana du Plessis Urban Planners
and
Gary White and Associates Architects and Urban Designers

July 2008
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CHAPTER 1: INTRODUCTION

1. BACKGROUND

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City. This area, which was established in 1892, is one of the oldest townships in Pretoria. Originally this area was a residential suburb, but over the years the character of the area has changed to that of a mixed-use area comprising light industrial developments, business; flats; and single residential precincts.

Three so-called residential precincts remain in the area. Although these precincts still comprise predominantly single residential developments, a number of higher-density developments as well as non-residential developments have taken place which are slowly changing the character of the area.

A previous framework for the Pretoria West area, namely the Pretoria West Spatial Development Framework, 2003, included the three residential precincts as part of the study area, but at that time this framework merely proposed that the residential character of these areas should be retained and strengthened, but did not provide any specific development guidelines.

The change in the character of the area, the strategic location of the area and development principles put forward in documents such as the City Development Strategy, Tshwane Metropolitan Spatial Development Framework and the Regional Spatial Development Framework for the Central Western Region have compelled the City of Tshwane to investigate the future of these three precincts from an urban regeneration and specifically a densification perspective.

This has led to the appointment of a consultant to draft the Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts.

2. STUDY AREA

The study area comprises three residential precincts in the Pretoria West area, situated between D.F. Malan Drive, Bultenkant Street, Mitchell Street and Vom Hagen Street. The study area excludes the Mitchell, South, Church and Vom Hagen Streets commercial spines, as these formed the subject matter of the Pretoria West Spatial Development Framework, 2003.

Refer to Figure 1 – Study Area

For ease of reference, the three precincts have been numbered from 1 to 3.

3. PURPOSE OF THE STRATEGY

In terms of the project brief, the purpose of the strategy is to compile a comprehensive and multi-disciplinary Integrated Compaction and Densification Strategy for the Pretoria West Residential Precincts. In order to manage and ensure harmonious, coordinated and integrated residential development in and around these areas.

This Strategy must--

• Look at the relevance of this area as a densification focus area from a metropolitan and regional perspective;
• Identify the opportunities that exist for densification;
• Identify the constraints that exist that could negatively impact on meaningful densification; and
• Make proposals with regard to land uses, design principles and the overall improvement of the quality of the environment.
CHAPTER 2: BUILDING A CASE FOR DENSIFICATION IN THE PRETORIA WEST CONTEXT

1. RATIONALE FOR DENSIFICATION

1.1. Efficiency and Sustainability

There are a number of acts and policies from National and Provincial Government across a range of sectors that provide directives and guidelines for the spatial and functional restructuring of South African cities. The key urban development objectives that are pursued in the national policy framework can be summarised as follows:

- Minimise unmanaged or unfocussed urban growth;
- Create opportunities for the densification of existing low density areas;
- Promote higher density and integrated environments with typical urban characteristics to balance suburban developments;
- Ensure that residents have access to a range of choices with regard to housing typologies as well as locations;
- Integrate residential development, movement systems, social facilities, employment opportunities and activity areas; and
- Focus residential densification around areas of opportunity (employment opportunity, activity areas, transport opportunities etc.).

It is important to understand that densification and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Densification should therefore not be done for the sake of densification, but to achieve a range of other urban goals such as:

- Managing the spatial growth of the city;
- Enhancing access to economic and social opportunities;
- Efficiency and cost effectiveness;
- Supporting public transport and non-motorised transport;
- Enhancing convenience and quality of life; and
- Creating the necessary population thresholds to support viable commercial activities and community facilities within convenient walking distance of homes and places of work.

To achieve meaningful densification which is able to achieve the above-mentioned objectives, it is important to identify specific focus areas for densification in the city. Densification and compaction should not be a random exercise. The two main criteria for such areas are:

- Areas which are close to major areas of economic and/or social opportunity; and/or
- Areas adjacent to major public transport facilities.

In the majority of cases, responsible densification implies the redevelopment of existing, centrally or strategically located, low density residential areas. This can take place either through Infill (utilising parcels of undeveloped or underdeveloped land) or complete urban renewal whereby existing structures are replaced by new higher density residential developments.

Urban infill development and redevelopment capitalises on mature infrastructure and captures economies of scale based on density.

1.2. Public Transport Facilities and Densification

Transit Oriented Development (TOD) focuses on the integration of major public transport facilities with urban development. The aim is to create compact, vibrant, walkable communities around high quality public transport systems (e.g. train stations). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development and progressively lower-density spreading outwards.

The main components of Transit Oriented design are—

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The neighbourhood is designed for cycling and walking, with adequate facilities and attractive street conditions;

- Streets have good connectivity and traffic calming features to control vehicle traffic speeds;
- The public transport facility is a prominent feature of the neighbourhood;
- Mixed-use development that includes shops, schools and other public services;
- A variety of housing types and prices in each neighbourhood;
- High density development within 10-minute walking radius surrounding the public transport facility;
- Supporting public transport systems such as taxis and buses; and
- Parking Management to reduce the amount of land devoted to parking compared with conventional development, and to take advantage of the parking cost savings associated with reduced automobile use.

In terms of land use and transport integration, it is important to support residential densification and mixed land uses within a walking distance of 500-800 metres from major public transport routes and facilities. On the one hand, this increases the accessibility of a large concentration of residential population to public transport services, while on the other hand creating the necessary population thresholds to support a viable and efficient public transport system. The higher densities, create adequate transit ridership to justify frequent and efficient public transport services.

**Successful land use and transportation integration on local scale that contribute to quality environments is often best characterised by what is known as the “3Ds”: Density, Diversity, and Design, i.e.**

- Areas with medium- and high-density populations provide a critical mass of inhabitants to support shops and public services without requiring access by motorised vehicles. For this reason, a fortuitous circle of relationships exist between urban density, vehicle ownership, energy use, and vehicle emissions.

- **Diversity** refers to creating a mix of uses within a local area. By combining residential and commercial uses into a single area, the number of trips and the length of travel are both reduced. People are able to meet most of their daily needs by walking, cycling, or public transport.

- **Design** refers to the planning of housing, shops, and public transport in a manner that supports a reduced dependence on cars.

1.3. Lifestyle

More and more people begin to prefer urban living over the traditional suburban lifestyle. The primary incentive appears to be time. Daily commutes rob us of valuable personal time, cultural opportunities and community life. When precious free time can be spent enjoying the things we value most, instead of fighting traffic, our quality of life improves. Many are rediscovering the pedestrian joy found inside a city.

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“We have a challenge to provide, in those neighbourhoods where we can grow, enough density to ensure affordability. Enough density to leverage open public space. Enough density to provide vitality and vibrancy of neighbourhoods, while respecting the built fabric of adjacent communities.”

A. Burden

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1. Bus Rapid Transit Planning Guide June 2007, Published by: Institute for Transportation & Development Policy New York, USA

2. [http://www.abc.com/impact/1114444.html](http://www.abc.com/impact/1114444.html)
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The Tshwane Inner City is still the most significant economic node in the metropolitan area with the greatest number of employment opportunities.

While the Inner City has for many years been a fairly inactive development area with very little interest in the residential sector, over recent years the demand for residential accommodation in and around the Inner City has increased drastically. This is evident in the number of office buildings which are being converted into residential apartments. This trend of converting space meant for economic activity into residential apartments is undesirable. If these conversions continue to take place the balance between the various land uses in the Inner City could be disturbed, with the Inner city running the danger of becoming a high density residential suburb instead of a high order mixed-use activity centre.

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As such, the Regional Spatial Development Framework for the Central Western Region has identified the Pretoria West area as a focus area for residential densification.

In addition to its central and strategic location, the study area is also characterised by a number of public transport routes and facilities, the most important being:
- The north-south commuter railway line with the Schutte Street Station; and
- Church Street, which is a Class 2 Strategic Public Transport Route.

The presence of the station calls for an approach of Transport Orientated Development in the study area, as described in paragraph 1.2 of this chapter.

The socio-economic information for the study area (refer to Chapter 3) indicates that the study area is already highly dependent on pedestrian movement and bus transport as modes of transport.

3. DENSITY STANDARDS

There is currently not a specific South African national policy on densities, and different local and international publications advocate different density standards. It is therefore very difficult to provide an exact indication of the densities that should be achieved in certain locations.

The most important qualitative guideline is that density should relate to the accessibility of the locality. From a quantitative point of view, the
The following guidelines could be utilized to determine appropriate densities for specific locations:

<table>
<thead>
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<th>Location</th>
<th>Appropriate Density</th>
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<td>highly accessible locality adjacent to public transport interchanges</td>
<td>between 90 and 100 du/ha</td>
</tr>
<tr>
<td>accessible localities adjacent to corridors</td>
<td>between 60 and 80 du/ha</td>
</tr>
<tr>
<td>localities within 1km walking distance from a corridor or public transport facility</td>
<td>between 40 and 60 du/ha</td>
</tr>
<tr>
<td>suburban localities</td>
<td>between 20 and 40 du/ha</td>
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**4. DENSIFICATION AND THE QUALITY OF THE ENVIRONMENT**

The general perception exists that low density, single residential development equates to a high quality residential environment and that higher density residential development results in lower quality residential environments.

Although the perception of high density residential areas as bland concrete and brick environments comprising block after block of similar looking uninspiring high-rise apartments might be true in some cases, the reality is that higher density environments, when planned, designed and managed correctly, could actually be much higher quality residential environments than a typical low density mono-functional residential neighbourhood.

Design considerations should therefore be part and parcel of high density environments and developments.

---

*Development of an Integrated Urban Corridor Assessment and Strategy Development Process for Transport Authorities and Provinces: National Department of Transport 2001*
CHAPTER 3: CONTEXTUALISATION

1. INSTITUTIONAL CONTEXT

The residential precincts which form the focus areas of this study are situated in Wards 3 and 60 of the City of Tshwane Metropolitan Municipality.

The City of Tshwane has a number of important higher order development frameworks, policies and strategies that provide policy direction for the Pretoria West Integrated Compaction and Densification Strategy.

These frameworks, policies and strategies provide direction for the development of the metropolitan area as whole or specific parts thereof, and therefore indirectly also provide principles for the development of more specific districts or local area such as the study area.

These documents are:

- City Development Strategy
- Metropolitan Spatial Development Framework
- City of Tshwane Compaction and Densification Strategy
- Regional Spatial Development Framework for the Central Western Region
- Pretoria West Spatial Development Framework, 2003

A summary of the key directives that have an influence on the Strategy is provided below. For more comprehensive detail, the specific documents should be consulted.

All these documents indicate in one way or another that the Pretoria West area should be considered as an area for densification.

Figure 3: Wards 3 and 60
### Table 1: Existing Policy Frameworks

<table>
<thead>
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<th>Policy</th>
<th>Key Directives</th>
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| City Development Strategy (CDS) | In terms of the City Development Strategy, “Rather than accepting the current inefficient urban form and its implicit financial unsustainability, this approach seeks to encourage creating places of opportunity that will support a wide range of densification in places that benefit from access to concentrated public investment in services and infrastructure; i.e., create economic opportunities at important interchanges and nodes receiving clusters of social facilities and allow higher density residential development to grow around these places.” The City Development Strategy identified inter alia the following intervention for the Capital City (i.e. the Inner City):  
* Continue to support housing opportunity creation  
"Its wealth also lies in the range of housing opportunities available and the convenient access it provides to all sorts of amenities and work opportunities. Further investment into affordable and diversified housing options within the city will ensure the continuation of its growing vibrancy.” |
| Metropolitan Spatial Development Framework (MSDF) | In terms of the MSDF, the compaction and functional integration of the city are normative directives from national level, and implies (1) higher density urban development; (2) greater mixing of compatible land uses and (3) focused concentration of high-density residential land uses and intensification of non-residential land uses in nodes and along activity corridors. A number of Metropolitan Activity Areas, Corridors and Activity Spines have been identified as part of the MSDF. Densification should specifically be focused around these structuring concepts as first priorities of intervention. The Tshwane Inner City is one of the Metropolitan Activity Areas. |
Tshwane Compaction and Densification Strategy

The purpose of this Strategy is to provide an integrated strategy for urban compaction and densification in Tshwane, in accordance with the directives from national and provincial legislation. It is aimed at addressing the structural composition of the metropolitan area as a whole from a densification point of view, rather than making any detailed proposals for densification in specific areas.

The strategy identified four broad density zones for the metropolitan area, namely:

- Concentration Zones;
- Linear Zones;
- Suburban Densification Zones; and
- Low Density Zones

One of the most important principles contained in the Tshwane Compaction and Densification Strategy is that higher density development should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated.

Regional Spatial Development Framework for the Central Western Region

In terms of the Regional Spatial Development Framework for the Central Western Region, the Pretoria West Area has been identified as a High Density Zone:

"High density Zones in the west of the region are focussed on the Urban Zones where public transport infrastructure can be supported. In Pretoria (West) those parts of the existing residential precincts located north and south of Church Street up to Luttig and Servaes Street are well served by public transport and can at the same time complement the various retail outlets along Church Street and the mixed uses in Von Hagen and Soutter Streets. Around Schulte Street Station which is on the Ring Rail Route even further densification can be promoted. Typical housing typologies that can be supported will be medium rise apartment buildings mixed with stacked simplexes up to three storeys."
**Pretoria West Spatial Development Framework**

The Pretoria West Spatial Development Framework was drafted in 2003 to guide and manage urban growth, based on the stagnation and deterioration of the area. This framework identified the following development objectives for the residential precincts:

- To retain and strengthen the residential character;
- To remove illegal, hazardous and conflicting uses that have been established within the residential neighbourhoods;
- To strengthen the "sense of place/neighborhood";
- To improve the residential quality; and
- To prevent the future invasion of unwanted commercial, retail and industrial uses in the residential precincts.

"The only possible development that can be considered in the residential areas is residential densification... The densification envisaged does not relate to second dwelling units or subdivision of single residential erven, but only to focused redevelopment to establish walk-ups, flats, town houses or semi-detached units... Densification should, nonetheless, take place in a scale intensive manner ensuring that the development contributes to the area."

---

**Inner City Housing Strategy**

The eastern part of the study area (precinct 3) was included as part of Precinct 8 of the Inner City Housing Strategy. In terms of this document, "The part of Pretoria West included in the focus area of this strategy has tremendous opportunity for residential densification and redevelopment. Although this area is not part of the inner city area itself, its close proximity to the inner city makes it ideal for intensification. As is the case with Precinct 7, it is important that these developments shall be done in such a way that it enhances the urban character of the inner city. A strong focus should also be the simultaneous development of convenience and social facilities, to support the residential development. Because of its location outside the inner city, a semi-suburban character (low to medium rise developments) will be appropriate in this area, provided that all developments contribute to the overall environmental quality of this area."

---
2. **SOCIO-ECONOMIC CONTEXT**

2.1. Demographics

This section provides a general broad overview of the socio-economic characteristics of Wards 3 and 60. It should however be borne in mind that -

- Wards 3 and 60 cover an area much larger than the study area. The demographic data does therefore not pertain specifically to the study area only; and
- The statistical data is based on the Stats SA Census 2001, which is fairly outdated.

Nonetheless, it will give a broad indication of the general socio-economic status of the area, when compared to Tshwane as a whole. The following are some pertinent socio-economic facts about the study area:

- The population in the study area is relatively young with most residents in the 20 - 34 years age group. In relation to the rest of Tshwane, there are fewer children and elderly people in the study area.
- The majority of the population (62%) has a grade 12 or higher education, which is much higher than the average for Tshwane (48%).
- The estimated average annual household income in 2008 is R130,000.00
- Only 10% of the population is regarded as unemployed, compared to the 22% average in Tshwane as a whole.
- The largest portion of the population (57%) rent their dwelling unit, which is much higher than the Tshwane average of 20%. The study area can be regarded as a predominantly rental area, as is the case with Sunnyside, Arcadia and Pretoria Central.
- The largest portion of the population (28%) moves on foot, which is higher than the 9% average for Tshwane as a whole. This is mainly due to the central location and number of job opportunities available in the area. Transport by means of bus is also an important mode of transport in the study area (13%) against the 7% average for the City.
- The average household size in Pretoria West is 3.3 persons. 29% of households comprise only one person and 43% of the households comprise between 2 and 3 persons.
- 17% of the dwelling units in Pretoria West comprise of only one room, and 44% of the population comprise between two and four rooms.⁴

---

⁴ Statistics SA defines a "room" as:
(1) A structural sub-division of a dwelling with walls to the ceiling (or almost to the ceiling), at least large enough to hold a bed for an adult.
(2) A dwelling with no internal sub-division (other than a traditional dwelling) is also referred to as a room.
Prepared for the
City of Tshwane Metropolitan Municipality
by
Riana du Plessis Urban Planners
and
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July 2008
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CHAPTER 1: INTRODUCTION

1. BACKGROUND

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City. This area, which was established in 1892, is one of the oldest townships in Pretoria. Originally this area was a residential suburb, but over the years the character of the area has changed to that of a mixed-use area comprising light industrial developments, business, flats and single residential precincts.

Three so-called residential precincts remain in the area. Although these precincts still comprise predominantly single residential developments, a number of higher-density developments as well as non-residential developments have taken place which are slowly changing the character of the area.

A previous framework for the Pretoria West area, namely the Pretoria West Spatial Development Framework, 2003, included the three residential precincts as part of the study area, but at that time this framework merely proposed that the residential character of these areas should be retained and strengthened, but did not provide any specific development guidelines.

The change in the character of the area, the strategic location of the area and development principles put forward in documents such as the City Development Strategy, Tshwane Metropolitan Spatial Development Framework and the Regional Spatial Development Framework for the Central Western Region have compelled the City of Tshwane to investigate the future of these three precincts from an urban regeneration and specifically a densification perspective.

This has led to the appointment of a consultant to draft the Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts.

2. STUDY AREA

The study area comprises three residential precincts in the Pretoria West area, situated between D.F. Malan Drive, Bultenkant Street, Mitchell Street and Vorn Hagen Street. The study area excludes the Mitchell, Scouting and Church and Vorn Hagen Streets commercial spines, as these formed the subject matter of the Pretoria West Spatial Development Framework, 2003.

Refer to Figure 1 - Study Area

For ease of reference, the three precincts have been numbered from 1 to 3.

3. PURPOSE OF THE STRATEGY

In terms of the project brief, the purpose of the strategy is to compile a comprehensive and multi-disciplinary Integrated Compaction and Densification Strategy for the Pretoria West Residential Precincts, in order to manage and ensure harmonious, coordinated and integrated residential development in and around these areas.

This strategy must:

- Look at the relevance of this area as a densification focus area from a metropolitan and regional perspective;
- Identify the opportunities that exist for densification;
- Identify the constraints that exist that could negatively impact on meaningful densification; and
- Make proposals with regard to land uses, design principles and the overall improvement of the quality of the environment.
Figure 1: Study Area
CHAPTER 2: BUILDING A CASE FOR DENSIFICATION IN THE PRETORIA WEST CONTEXT

1. RATIONALE FOR DENSIFICATION

1.1. Efficiency and Sustainability

There are a number of acts and policies from National and Provincial Government across a range of sectors that provide directives and guidelines for the spatial and functional restructuring of South African cities. The key urban development objectives that are pursued in the national policy framework can be summarised as follows:

- Minimise unmanaged or unfocussed urban growth;
- Create opportunities for the densification of existing low density areas;
- Promote higher density and integrated environments with typical urban characteristics to balance suburban developments;
- Ensure that residents have access to a range of choices with regard to housing typologies as well as locations;
- Integrate residential development, movement systems, social facilities, employment opportunities and activity areas; and
- Focus residential densification around areas of opportunity (employment opportunity, activity areas, transport opportunities etc.).

It is important to understand that densification and compactness is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Densification should therefore not be done for the sake of densification, but to achieve a range of other urban goals such as:

- managing the spatial growth of the city;
- enhancing access to economic and social opportunities;
- efficiency and cost effectiveness;
- supporting public transport and non-motorised transport;
- enhancing convenience and quality of life; and
- creating the necessary population thresholds to support viable commercial activities and community facilities within convenient walking distance of homes and places of work.

To achieve meaningful densification which is able to achieve the above-mentioned objectives, it is important to identify specific focus areas for densification in the city. Densification and compactness should not be a random exercise.

The two main criteria for such areas are:

- Areas which are close to major areas of economic and/or social opportunity; and/or
- Areas adjacent to major public transport facilities,

In the majority of cases, responsible densification implies the redevelopment of existing, centrally or strategically located, low density residential areas. This can take place either through infill (utilising parcels of undeveloped or underdeveloped land) or complete urban renewal whereby existing structures are replaced by new higher density residential developments.

Urban infill development and redevelopment capitalises on mature infrastructure and captures economies of scale based on density.

1.2. Public Transport Facilities and Densification

Transit Oriented Development (TOD) focuses on the integration of major public transport facilities with urban development. The aim is to create compact, vibrant walkable communities around high quality public transport systems (e.g. train stations). This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival. A TOD neighborhood has a center with a rail or bus station, surrounded by relatively high-density development and progressively lower-density spreading outwards.

The main components of Transit Oriented design are:

-
• The neighbourhood is designed for cycling and walking, with adequate facilities and attractive street conditions;

• Streets have good connectivity and traffic calming features to control vehicle traffic speeds;

• The public transport facility is a prominent feature of the neighbourhood;

• Mixed-use development that includes shops, schools and other public services;

• A variety of housing types and prices in each neighbourhood;

• High density development within 10-minute walking radius surrounding the public transport facility;

• Supporting public transport systems such as taxis and buses; and

• Parking Management to reduce the amount of land devoted to parking compared with conventional development, and to take advantage of the parking cost savings associated with reduced automobile use.

In terms of land use and transport integration, it is important to support residential densification and mixed land uses within a walking distance of 500-600 metres from major public transport routes and facilities. On the one hand, this increases the accessibility of a large concentration of residential population to public transport services, while on the other hand creating the necessary population thresholds to support a viable and efficient public transport system. The higher densities create adequate transit ridership to justify frequent and efficient public transport services.

• Successful land use and transportation integration on local scale that contribute to quality environments is often best characterised by what is known as the "3Ds": Density, Diversity, and Design, i.e. -

• Areas with medium- and high-density populations provide a critical mass of inhabitants to support shops and public services without requiring access by motorised vehicles. For this reason, a fortuitous circle of relationships exist between urban density, vehicle ownership, energy use, and vehicle emissions.

• Diversity refers to creating a mix of uses within a local area. By combining residential and commercial uses into a single area, the number of trips and the length of travel are both reduced. People are able to meet most of their daily needs by walking, cycling, or public transport.

• Design refers to the planning of housing, shops, and public transport in a manner that supports a reduced dependence on cars.1

1.3. Lifestyle

More and more people begin to prefer urban living over the traditional suburban lifestyle. The primary incentive appears to be time. Daily commutes rob us of valuable personal time, cultural opportunities and community life. When precious free time can be spent enjoying the things we value most, instead of fighting traffic, our quality of life improves. Many are rediscovering the pedestrian joy found inside a city.

Many people are leaving a single larger home in favour of multiple smaller homes that allow for variety in their living accommodations; a pied-a-terre in the city and another smaller home out in the country. Simplifying life by downsizing and learning to live with less of the "stuff" that comes with a large house can translate to new freedoms.2

"We have a challenge to provide, in those neighbourhoods where we can grow, enough density to ensure affordability. Enough density to leverage open public space. Enough density to provide vitality and vibrancy of neighbourhoods, while respecting the built fabric of adjacent communities."

A. Burden

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1 Bug, Rapid Transit Planning Guide June 2007. Published by Institute for Transportation & Development Policy New York, USA

2. SUITABILITY OF PRETORIA WEST AS A FOCUS AREA FOR DENSIFICATION

Pretoria West is a neighbourhood that lies directly west of the Tshwane Inner City, to the west of D.F. Malan Drive. This area is a former low density residential area that has over the years undergone a gradual transition in character. Although large sections of the area are still exclusively residential, there is an influx of non-residential developments into the area.

The Tshwane Inner City is still the most significant economic node in the metropolitan area with the greatest number of employment opportunities.

While the Inner City has for many years been a fairly inactive development area with very little interest in the residential sector, over recent years the demand for residential accommodation in and around the Inner City has increased drastically. This is evident in the number of office buildings which are being converted into residential apartments. This trend of converting space meant for economic activity into residential apartments is undesirable. If these conversions continue to take place the balance between the various land uses in the Inner city could be disturbed, with the Inner city running the danger of becoming a high density residential suburb instead of a high order mixed-use activity centre.

In order to address the need for housing in the area, it is necessary to look at opportunities for redevelopment and residential densification around and in close proximity to the Inner City. The Pretoria West area is considered to be an ideal opportunity for such development. Not only is it directly adjacent to the Inner City, but it has over the years been increasingly characterised by urban decay. The area is considered to be ripe for redevelopment and urban renewal.

As such, the Regional Spatial Development Framework for the Central Western Region has identified the Pretoria West area as a focus area for residential densification.

In addition to its central and strategic location, the study area is also characterised by a number of public transport routes and facilities, the most important being:

- The north-south commuter railway line with the Schutte Street Station; and
- Church Street, which is a Class 2 Strategic Public Transport Route.

The presence of the station calls for an approach of Transport Oriented Development in the study area, as described in paragraph 1.2 of this chapter.

The socio-economic information for the study area (refer to Chapter 3) indicates that the study area is already highly dependent on pedestrian movement and bus transport as modes of transport.

The rationale for considering Pretoria West as a strategic densification area is founded in three characteristics of the area, namely:

- The proximity to a major employment and activity centre, namely the Tshwane Inner City;
- The proximity to major public transport opportunities; and
- The decaying character of the area which makes it ripe for urban renewal and development intervention.

3. DENSITY STANDARDS

There is currently not a specific South African national policy on densities, and different local and international publications advocate different density standards. It is therefore very difficult to provide an exact indication of the densities that should be achieved in certain locations.

The most important qualitative guideline is that density should relate to the accessibility of the locality. From a quantitative point of view, the
The following guidelines could be utilized to determine appropriate densities for specific locations:

<table>
<thead>
<tr>
<th>Location</th>
<th>Appropriate Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>highly accessible locality adjacent to public transport interchanges</td>
<td>between 60 and 100 du/ha</td>
</tr>
<tr>
<td>accessible localities adjacent to corridors</td>
<td>between 60 and 80 du/ha</td>
</tr>
<tr>
<td>localities within 1km walking distance from a corridor or public transport facility</td>
<td>between 40 and 60 du/ha</td>
</tr>
<tr>
<td>suburban localities</td>
<td>between 20 and 40 du/ha</td>
</tr>
</tbody>
</table>

![Figure 2: Densities vs. Locality](image)

4. DENSIFICATION AND THE QUALITY OF THE ENVIRONMENT

The general perception exists that low density, single residential development equates to a high quality residential environment and that higher density residential development results in lower quality residential environments.

Although the perception of high density residential areas as bland concrete and brick environments comprising block after block of similar looking uninspiring high-rise apartments might be true in some cases, the reality is that higher density environments, when planned, designed and managed correctly, could actually be much higher quality residential environments than a typical low density monofunctional residential neighbourhood.

Design considerations should therefore be part and parcel of high density environments and developments.

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CHAPTER 3: CONTEXTUALISATION

1. INSTITUTIONAL CONTEXT

The residential precincts which form the focus areas of this study are situated in Wards 3 and 60 of the City of Tshwane Metropolitan Municipality.

The City of Tshwane has a number of important higher order development frameworks, policies and strategies that provide policy direction for the Pretoria West Integrated Compaction and Densification Strategy.

These frameworks, policies and strategies provide direction for the development of the metropolitan area as whole or specific parts thereof, and therefore indirectly also provide principles for the development of more specific districts or local area such as the study area.

These documents are –

- City Development Strategy
- Metropolitan Spatial Development Framework
- City of Tshwane Compaction and Densification Strategy
- Regional Spatial Development Framework for the Central Western Region
- Pretoria West Spatial Development Framework, 2003

A summary of the key directives that have an influence on the Strategy is provided below. For more comprehensive detail, the specific documents should be consulted.

All these documents indicate in one way or another that the Pretoria West area should be considered as an area for densification.
<table>
<thead>
<tr>
<th>Policy</th>
<th>Key Directives</th>
</tr>
</thead>
</table>
| City Development Strategy (CDS) | In terms of the City Development Strategy, "Rather than accepting the current inefficient urban form and its implicit financial unsustainability, this approach seeks to encourage creating places of opportunity that will support wide range of densification in places that benefit from access to concentrated public investment in services and infrastructure; i.e. create economic opportunities at important interchanges and nodes receiving clusters of social facilities and allow higher density residential development to grow around these places."

The City Development Strategy identified inter alia the following intervention for the Capital City (i.e. the Inner City):

- Continue to support housing opportunity creation

"Its wealth also lies in the range of housing opportunities available and the convenient access it provides to all sorts of amenities and work opportunities. Further investment into affordable and diversified housing options within the city will ensure the continuation of its growing vibrancy."

| Metropolitan Spatial Development Framework (MSDF) | In terms of the MSDF, the compaction and functional integration of the city are normative directives from national level, and implies (1) higher density urban development, (2) greater mixing of compatible land uses and (3) focused concentration of high-density residential land uses and intensification of non-residential land uses in nodes and along activity corridors.

A number of Metropolitan Activity Areas, Corridors and Activity Spines have been identified as part of the MSDF. Densification should specifically be focused around these structuring concepts as first priorities of intervention. The Tshwane Inner City is one of the Metropolitan Activity Areas. |
<table>
<thead>
<tr>
<th>Policy</th>
<th>Key Directives</th>
</tr>
</thead>
</table>
| Tshwane Compaction and Densification Strategy | The purpose of this Strategy is to provide an integrated strategy for urban compaction and densification in Tshwane, in accordance with the directives from national and provincial legislation. It is aimed at addressing the structural composition of the metropolitan area as a whole from a densification point of view, rather than making any detailed proposals for densification in specific areas. The strategy identified four broad density zones for the metropolitan area, namely:  
- Concentration Zones;  
- Linear Zones;  
- Suburban Densification Zones; and  
- Low Density Zones  
One of the most important principles contained in the Tshwane Compaction and Densification Strategy is that higher density development should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. |

| Regional Spatial Development Framework for the Central Western Region | In terms of the Regional Spatial Development Framework for the Central Western Region, the Pretoria West Area has been identified as a High Density Zone:  
"High density Zones in the west of the region are focussed on the Urban Cores where public transport infrastructure can be supported. In Pretoria (West) those parts of the existing residential precincts located north and south of Church Street up to Lutig and Serves Street are well served by public transport and can at the same time complement the various retail outlets along Church Street and the mixed uses in Vort Hagen and Soouter Streets...Around Schute Street Station which is on the Ring Rail Route even further densification can be promoted. Typical housing typologies that can be supported will be medium rise apartment buildings mixed with stacked simplexes up to three storeys". |
The Pretoria West Spatial Development Framework was drafted in 2003 to guide and manage urban growth, based on the stagnation and deterioration of the area. This framework identified the following development objectives for the residential precincts:

- To retain and strengthen the residential character;
- To remove illegal, hazardous and conflicting uses that have been established within the residential neighbourhoods;
- To strengthen the “sense of place/neighbourhood”;
- To improve the residential quality; and
- To prevent the future invasion of unwanted commercial, retail and industrial uses in the residential precincts.

“The only possible development that can be considered in the residential areas is residential densification... The densification envisaged does not relate to second dwelling units or subdivision of single residential erven, but only to focussed redevelopment to establish walk-ups, flats, town houses or semi-detached units... Densification should, nonetheless, take place in a scale intensive manner ensuring that the development contributes to the area.”

Inner City Housing Strategy

The eastern part of the study area (precinct 3) was included as part of Precinct 9 of the Inner City Housing Strategy. In terms of this document, “The part of Pretoria West included in the focus area of this strategy, has tremendous opportunity for residential densification and redevelopment. Although this area is not part of the inner city area itself, its close proximity to the inner city makes it ideal for intensification. As is the case with Precinct 7, it is important that these developments shall be done in such a way that it enhances the urban character of the inner city. A strong focus should also be the simultaneous development of convenience and social facilities, to support the residential development. Because of its location outside the inner city, a semi-suburban character (low to medium rise developments) will be appropriate in this area, provided that all developments contribute to the overall environmental quality of this area.”
2. SOCIO-ECONOMIC CONTEXT

2.1. Demographics

This section provides a general broad overview of the socio-economic characteristics of Wards 3 and 80. It should however be borne in mind that -

- Wards 3 and 80 cover an area much larger than the study area. The demographic data does therefore not pertain specifically to the study area only; and
- The statistical data is based on the Stats SA Census 2001, which is fairly outdated.

Nonetheless, it will give a broad indication of the general socio-economic status of the area, when compared to Tshwane as a whole. The following are some pertinent socio-economic facts about the study area:

- The population in the study area is relatively young with most residents in the 20 – 34 years age group. In relation to the rest of Tshwane, there are fewer children and elderly people in the study area.

- The majority of the population (62%) has a grade 12 or higher education, which is much higher than the average for Tshwane (48%).

- The estimated average annual household income in 2008 is R130,000.00

- Only 10% of the population is regarded as unemployed, compared to the 22% average in Tshwane as a whole.

- The largest portion of the population (57%) rent their dwelling unit, which is much higher than the Tshwane average of 20%. The study area can be regarded as a predominantly rental area, as is the case with Sunnyside, Arcadia and Pretoria Central.

- The largest portion of the population (26%) moves on foot, which is higher than the 9% average for Tshwane as a whole. This is mainly due to the central location and number of job opportunities available in the area. Transport by means of bus is also an important mode of transport in the study area (13%) against the 7% average for the City.

- The average household size in Pretoria West is 3.3 persons. 29% of households comprise only one person and 43% of the households comprise between 2 and 3 persons.

- 17% of the dwelling units in Pretoria West comprise of only one room, and 44% of the population comprise between two and four rooms.⁴

⁴ Statistics SA defines a "room" as:
(1) A structural sub-division of a dwelling with walls to the ceiling (or almost to the ceiling), at least large enough to hold a bed for an adult.
(2) A dwelling with no internal sub-divisions (other than traditional dwellings) is also referred to as a room.
Figure 4: Socio-economic Status of Pretoria West (Census 2001)
3. SPATIAL CONTEXT

3.1. Regional Context

The Pretoria West area is located directly west of the Tshwane Inner City, and can for all intents and purposes be considered as a fringe area of the Inner City. This location ensures that the study area has a strategic location within the metropolitan and regional context.

The study area is also situated in close proximity to the residential neighbourhoods of Proclamation Hill and Danville to the west and Philip Nel Park to the north.

It lies on the westward extension of the N4, which links the study area with the Hartbeespoort Dam area in Madibeng Local Municipality.

Although the entire study area is perhaps not within walking distance of the employment opportunities offered by the Inner City, it lies on an important public transport route (Church Street) which links the area directly with the inner city.

3.2. General Character of the Study Area and its Surroundings

The study area is a mature built-up area that has been in existence since 1892.

Currently the general land use character of the area can be divided into five broad zones, namely:

- the light industrial zone which has developed along Mitchell Street and Soutter Street;
- the business development along Church Street;
- the emerging commercial/light industrial development along Vom Hagen Street;
- the Pillich/Tshwane Events Centre/Showgrounds precinct; and
- three residential precincts which are the subject matter of this study.

A large regional shopping centre, the Quagg Centre, which also contains a private medici
Clinic is situated to the north-west of the study area, directly adjacent to Precinct 2.

The broader Pretoria West area is characterised by a sense of decay and decline.

Although the three residential precincts still comprise predominantly single residential developments, a number of illegal developments have moved into the area which has compromised the character of the area.

Notwithstanding this gradual land use invasion which has been taking place, it is undisputed that the area still has value as a residential area and that, together with the heritage value of the area, must be protected.

The spatial structure is characterised by a grid layout with streets spaced at regular intervals, resulting in street blocks of equal size. The size of a standard street block is 34260m². Originally these street blocks comprised 12 equally sized erven, each 2855m² in extent. A number of subdivisions and consolidations have however taken place over the years, with the result that there are a number of different erf sizes and erf shapes in the area. However, in general, the following three erf sizes are most prevalent in the area:

- A standard, original erf: 2855m²
- A half-size erf: 1428m²
- A quarter-size erf: 785m²

What is of importance from a development perspective is that there is no vacant land available in the study area. Future developments in this area will therefore focus on brownfield developments and urban renewal.
3.3. Existing Land Uses

Refer to Figure 8 – Land Use

The three residential precincts comprise predominantly single residential dwelling houses whose condition varies between well-maintained and dilapidated. Higher density residential development in the form of apartment buildings ranging in height between 2 and 7 storeys can be found in:

- Precinct 1, mainly in the street block between Servaes, Rose-Elta, Scutler and Court Streets;
- Precinct 2 along Vom Hagen Street (SAVF Old Age Home); and
- Precinct 3 mainly along Christoffel Street.

Although this area has always been a residential area, over the years a number of non-residential land uses, both legal and illegal, have begun to intrude into the area. These include retail developments, home undertakings and, the most worrying, an influx of incompatible scrap yards and light industries. Another worrying land use trend in this area is the so-called “back-yard rooms” phenomenon, where owners of properties erect a number of often illegal structures on their properties which they rent out as cheap accommodation.

Other land uses include social facilities such as schools, churches, open space and day-care facilities.
3.4. Zoning

The majority of the properties in the study area are zoned "Residential 1". Exceptions are -

* The properties along the southern side of Christoffel Street as well as properties between Rebecca, Soutter, Court and Servaas Streets that have been zoned "Residential 4".

* A number of properties have also been zoned "Special" for purposes as set out in Table 3.

When considering land use rights approved for higher density residential uses, the existing rights which will have a bearing on the future land use rights to be approved in the area are set out in Table 2.

Refer to Figure 9 - Zoning

<table>
<thead>
<tr>
<th>ERF No</th>
<th>Location</th>
<th>Zoning</th>
<th>FSR</th>
<th>No of Units</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Precinct 1</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
</tr>
<tr>
<td>Multiple Court, Servaas, Rebecca and Soutter Street</td>
<td>Residential 4</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
<td></td>
</tr>
<tr>
<td>-/3011  Rebecca</td>
<td>Residential 4</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Precinct 2</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
</tr>
<tr>
<td>2/1443  Zeiler</td>
<td>Special</td>
<td>520m²</td>
<td>-</td>
<td>2 storeys</td>
<td></td>
</tr>
<tr>
<td>R/2902  Luttig</td>
<td>Special</td>
<td>0.35</td>
<td>Block of Tenements (52 units)</td>
<td>2 storeys</td>
<td></td>
</tr>
<tr>
<td>R/1312  Luttig</td>
<td>Special</td>
<td>0.4</td>
<td>40 du/ha</td>
<td>2 storeys</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Precinct 3</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
</tr>
<tr>
<td>Multiple Malzcan, Christoffel, Relief and Church Street</td>
<td>Residential 4</td>
<td>Zone 5 (1,5)</td>
<td>-</td>
<td>Zone 5 (19m)</td>
<td></td>
</tr>
<tr>
<td>2/1405 and 4/1405 Luttig</td>
<td>Special</td>
<td>1.2</td>
<td>-</td>
<td>19m</td>
<td></td>
</tr>
<tr>
<td>1/1364 and R/1364 Christoffel</td>
<td>Residential 4</td>
<td>1.5</td>
<td>-</td>
<td>19m</td>
<td></td>
</tr>
<tr>
<td>R/1270 and Luttig</td>
<td>Residential 4</td>
<td>1.2</td>
<td>-</td>
<td>19m</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Existing "Special" Zonings

<table>
<thead>
<tr>
<th>Precinct</th>
<th>Ed No</th>
<th>Annexure B</th>
<th>Land Use Rights</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precinct 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/3165</td>
<td>7744</td>
<td></td>
<td>Guest House</td>
<td>Servani</td>
</tr>
<tr>
<td>3/1684</td>
<td>8073</td>
<td></td>
<td>Industrial 2</td>
<td>Sutter</td>
</tr>
<tr>
<td>R/1665</td>
<td>6513</td>
<td></td>
<td>Industrial 2</td>
<td>Sutter</td>
</tr>
<tr>
<td>1/1695</td>
<td>8544</td>
<td></td>
<td>Industrial 2</td>
<td>Sutter</td>
</tr>
<tr>
<td>R/1702</td>
<td>7186</td>
<td></td>
<td>Storage, display and sale of power tools</td>
<td>Servani/Keller</td>
</tr>
<tr>
<td>3487</td>
<td>6561</td>
<td></td>
<td>Commercial Use, motor-workshop, wash facility</td>
<td>Servani/Zeller</td>
</tr>
<tr>
<td>1/1565</td>
<td>3325</td>
<td></td>
<td>Guest House</td>
<td>Frederick</td>
</tr>
<tr>
<td>3205</td>
<td>58</td>
<td></td>
<td>Warehouses</td>
<td>Frederick (back of Church)</td>
</tr>
<tr>
<td>R/1621</td>
<td>3325</td>
<td></td>
<td>Guest House</td>
<td>Frederick</td>
</tr>
<tr>
<td>3141</td>
<td>804</td>
<td></td>
<td>Warehouses</td>
<td>Frederick</td>
</tr>
<tr>
<td>R/1545</td>
<td>2255</td>
<td></td>
<td>Dwelling House Office</td>
<td>Rose-Ella</td>
</tr>
<tr>
<td>Precinct 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/1315</td>
<td>5249</td>
<td></td>
<td>Offices</td>
<td>Court</td>
</tr>
<tr>
<td>1/1310 and 2/1310</td>
<td>7213</td>
<td></td>
<td>Shop and Parking</td>
<td>Court</td>
</tr>
<tr>
<td>R/1312</td>
<td>6746</td>
<td></td>
<td>Residential Buildings</td>
<td>Luttig</td>
</tr>
<tr>
<td>R/2902</td>
<td>8257</td>
<td></td>
<td>Block of Tenements</td>
<td>Luttig</td>
</tr>
<tr>
<td>1/1331</td>
<td>8630</td>
<td></td>
<td>Offices</td>
<td>Rebecca</td>
</tr>
<tr>
<td>1/438</td>
<td>7239</td>
<td></td>
<td>Shops and residential building</td>
<td>Rebecca</td>
</tr>
<tr>
<td>2/1443</td>
<td>889</td>
<td></td>
<td>Warehouse</td>
<td>Zeller Street</td>
</tr>
<tr>
<td>Precinct 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/1266 and 1/1269</td>
<td>8339</td>
<td></td>
<td>Commercial Use</td>
<td>Mailbean</td>
</tr>
<tr>
<td>R/1269</td>
<td>7772</td>
<td></td>
<td>Commercial Use</td>
<td>Luttig</td>
</tr>
<tr>
<td>R/1269 and 1/1261</td>
<td>2718</td>
<td></td>
<td>Shops</td>
<td>Luttig</td>
</tr>
<tr>
<td>2/1405 and 4/1465</td>
<td>1683</td>
<td></td>
<td>Residential Buildings</td>
<td>Luttig</td>
</tr>
<tr>
<td>3426</td>
<td>3333</td>
<td></td>
<td>Vehicle Testing Centre</td>
<td>Luttig/Christoffel</td>
</tr>
<tr>
<td>2/1512</td>
<td>5928</td>
<td></td>
<td>Repair and service of appliances</td>
<td>Christoffel</td>
</tr>
</tbody>
</table>

5 This table provides a summary of the land use rights. For the full description of land use rights and zoning conditions the respective scheme documents must be consulted.
3.6. Movement System and Public Transport

The east-west road system comprises a number of major routes such as Mitchell Street, Soutter Street, Church Street and Vom Hagen Street, which have a strong impact on the spatial structure of the area. The land use along the major east-west streets have all been developed for commercial purposes. Because of the location adjacent to the Inner City, the general character of these commercial streets tends to lean more towards an urban rather than a suburban character.

The north-south routes tend to be more local, with only Rebecca Street linking this area with the areas to the north of Vom Hagen Street.

There is a north-south commuter railway line running through the centre of the study area, which forms part of an extensive rail network in the region. This line forms a strong barrier between the eastern and western part of the study area.

This railway line links up with Pretoria Station, from where the proposed Ring Rail System as well as the Gautrain can be accessed.

The Schutte Street station is situated adjacent to Precinct 1. The station facilities are however in a state of decay, with very inconvenient and in fact outright dangerous pedestrian access to the station via a hidden pedestrian walkway behind the school. This situation needs to be addressed.

Although road-based public transport such as minibus taxis utilise a number of roads in the study area, Church Street is considered to be the major public transport route running through the area. This road then also runs midway through the three precincts. Church Street is also proposed as an "enhanced" Bus Rapid Transit (BRT) route for phase 1 of the proposed BRT system.

In terms of the Tshwane Strategic Public Transport Plan and Network, 2007, Church Street is classified as a Class 2 public transport route, while Vom Hagen, Rebecca, Soutter, Mitchell and Buitenkant Streets are classified as Class 3 routes.

3.6. Social Facilities

The study area comprises the following social and community facilities:

- There are two schools, namely Burger Right Primary School and Simon Bekker Laerskool, which are both situated in Precinct 1.
- There are a few creches, the majority of which are located in Precinct 1.
- There is one public open space/sports field, which is also situated in Precinct 1.
- There are 14 churches which are distributed throughout the three precincts.
- There is a Medi-cross private medical clinic at the Quagga Centre, directly west of Precinct 2.
- A police station is situated in Church Street, between Zeler Street and the subway.
3.7. Open Space and Environment

There is currently only one functional open space in the study area, namely the park in the southern part of the study area, on the southern side of Soutter Street.

4. INFRASTRUCTURE AND SERVICES CONTEXT

The following information was obtained from the municipality's internal departments with regard to the capacity of engineering services and infrastructure in the area:

- According to the Roads and Stormwater Division, "The study area's does not have sufficient stormwater drainage systems and the existing systems are very old and outdated. The existing stormwater drainage systems will have to be upgraded with any densification or change in land use in the study area. This Division will also require that a detail Stormwater Master Plan (SMP) be done as part of the densification study to determine the effect of the densification on the existing drainage systems as well as the upgrades necessary to cope with the proposed densification."

- In terms of electricity capacity, the Supply Substation (Tunnel) has only 0.81 MVA available spare capacity. It is recommended that the Substation be upgraded from 35 MVA to 70 MVA at estimated cost of R44 million to accommodate the proposed development.

Developers must be encouraged to install a concrete slab roof to the high rise buildings and the roof must have an unobstructed exposure to the sun. This area of the roof must be used by the Developers to install solar water heaters (geysers) to service the entire building.

The Energy and Electricity Division supports the Compaction and Densification Strategy but budgeting for the bulk electricity infrastructure must be ciphered and be ring-fenced by Finance Department at least two years before the commencement of the proposed development.

- The Water and Sanitation Division has provided the following information with regard to water and sanitation capacity in the area:
Precinct 3 falls under Findlay Reservoir Zone. There is a scheduled water network replacement in Pretoria West during the 2008/2009 financial year. According to the Division's Master Plan, the current Average Annual Daily Demand (AADD) for Findlay Reservoir is 25450 kld and the future AADD is 34474 kld. This shows that the available capacity for Findlay Reservoir is 9024 kld. The above-mentioned water consumption is based on the current land uses. This means that the proposed densification water demand must be less than 9024 kld.

Precincts 1 and 2 fall under Heights High Level Reservoir Zone. The existing water network is old Asbestos Cement pipes and it will have to be upgraded to uPVC pipes with any densification or change in land use. According to the current Master Plan, the current AADD for Heights High Level Reservoir is 3616 kld and the future AADD is 5915 kld. This shows that the available capacity for Heights High Level Reservoir is 1399 kld. The above-mentioned water consumptions are based on the current land uses.

The current sanitation services will have to be upgraded in some particular sections with any densification or change in land use.

5. **CONCLUSION: KEY SPATIAL TRENDS AND ISSUES**

This section deals with the synthesis of the contextual analysis, and highlights those spatial elements and trends that have a direct impact on the development proposals for the future.

Three specific aspects are considered of importance —

- Existing trends in land use rights;
- Structuring elements in the form of movement channels such as roads and railway lines, open spaces and large community facilities such as schools; and
- Walking distances (500m) to employment opportunities, public transport facilities and social facilities.

With regard to the interpretation of the current land use rights which can be found in the area, there are a number of distinct patterns that emerge, namely:

1. The Carl Street/Mitchell Street/Soutter Street linear zone, which lies on the southern edge of the study area, is a distinct light industrial zone. This is also a large employment area adjacent to the study area.
2. The erven along Church Street to the west of Maltzan Street have been developed as a linear business strip.
3. The erven along the northern side of Church Street to the east of Maltzan Street are currently predominantly zoned for higher density residential purposes, with a number of business erven in between. In terms of the Pretoria West Spatial Development Framework this area has been earmarked for residential development. These erven, together with the erven between Schutte, Soutter, Maltzan and Church Streets form a cluster of current high density residential land use rights. One other cluster is found in Precinct 1 in the street block between Servaes, Rose, Elta, Soutter and Carl Streets.

4. The erven along Vom Hagen Street are slowly being converted into commercial and business rights.

5. The remainder of the area is predominantly zoned for single residential purposes. However, a few of these properties have obtained rights for non-residential uses, which has set a precedent in the area.¹

Major structuring elements in the study area that form the foundation for the development proposals are —

- Church Street, as the major road based public transport route;
- The commuter railway line together with the Schutte Street Station;
- Mitchell Street, Soutter Street, Vom Hagen Street and Rebecca Street as major

¹ Numbers correspond to numbers on Figure 11
movement routes and minor public transport routes; and

- The public open space and schools.

With regard to walking distances, it is important to note the following three aspects:

- Figure 11 indicates the 500 metres walking distance radius around the Schutte Street station. This is an important focus area for Transit Oriented Development, which includes high density residential development;
- No property in the study area is more than 500 metres away from the Church Street high priority public transport route (Refer to Figure 10; and
- All properties in precinct 1 are within walking distance of the Mitchell Street/Soutter Street employment area.

It is clear from the analysis and the synthesis that the area comprises all the right characteristics of a focus area for densification. The only negative aspect is the fact that the current engineering infrastructure capacity is clearly not adequate to support significant densification in the area, and this will have to be addressed as a priority matter by the municipality.
CHAPTER 4: DEVELOPMENT STRATEGY AND CONCEPT

1. VISION

Although the project brief is to formulate a Densification and Compaction Strategy for the
three residential precincts in Pretoria West, the development vision for the area goes beyond
merely the issue of densification.

Meaningful and successful higher density
environments go hand-in-hand with the concept of
creating sustainable neighbourhoods. Without the
creation of a sustainable neighbourhood,
densification will result in inferior, unpleasant and
bland living environments.

The concept of sustainable neighbourhoods is a
holistic one, aiming to classify the living conditions
within which all people can pursue dynamic and
meaningful lives that simultaneously optimise the
use of natural resources.

Ultimately, this strategy is about the
neighbourhood and improving the neighbourhood
to the extent that it begins to have a positive
impact on the lives of the community and that
lasting social and/or economic change is ensured
in the area.

Sustainable neighbourhood planning seeks to
achieve long-term socially, environmentally and
economically viable communities through design
principles such as:

- Creating socially cohesive and diverse
  communities through a mix of housing types
  and employment opportunities;
- Promoting alternative transportation and
  energy;
- Promoting efficient use of resources;
- Locating residential areas close to
  recreational and commercial services with
  pedestrian and cycling connections; and
- Creating a safe environment through the
  application of the "Crime Prevention
  through Environmental Design" principles.

The benefits of a Sustainable Neighbourhood are:

- Healthier living environments;
- Reduced cost for heating and cooling; (if
  environmentally friendly building practices
  are adhered to);
- Local employment opportunities;
- Safe and liveable environments; and
- Access to public transport.
2. **OBJECTIVES**

Based on the vision of the creation of a sustainable neighbourhood that has been set for the development of the residential precincts in Pretoria West, the following development objectives have been identified:

<table>
<thead>
<tr>
<th>Objective</th>
<th>Explanation</th>
<th>Typical Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To harness the inherent potential for meaningful residential densification</td>
<td>Due to the study area’s strategic location adjacent to the Tshwane Inner City, as well as the fact that it is situated on a major public transport route, the importance of this area as a densification focus area cannot be overemphasised. This area is of metropolitan importance, and the potential that exist for densification should therefore be harnessed optimally. This is however not to say that densification should take place at all cost and to the detriment of the quality of the environment. All densification actions should in the end contribute to the creation of a better environment.</td>
<td>Identify suitable locations for higher density housing. Use existing development trends and precedents to shape the urban structure.</td>
</tr>
<tr>
<td>2. To create an attractive and safe environment</td>
<td>The physical attractiveness of the environment lies in aspects such as the design and appearance of buildings, the quality of the public spaces such as streets, parks and sidewalks, the human scale of development etc. Safety refers to aspects such as the safety of pedestrians of people using the public spaces and how the physical environment is designed to contribute to a generally safer environment.</td>
<td>Identify opportunities in the current road system to create local neighbourhood spaces that contribute to a safe and convenient pedestrian friendly environment. Employ the principles of Crime Prevention through Environmental Design in all private and public developments and interventions.</td>
</tr>
<tr>
<td>3. To create an environmentally sustainable neighbourhood.</td>
<td>With urban renewal comes the opportunity to look at sustainable building practices, alternative forms of energy, the nature of the greenery (endemic plants), cleaner technology etc. These issues are of global concern, but of particular relevance to South Africa at this point in time. These issues should be considered as part of a holistic land use management strategy for the area.</td>
<td>Employ environmentally friendly building practices. Focus on support for non-motorised transport. Identify sustainable energy standards for all developments.</td>
</tr>
<tr>
<td>4. To prevent gentrification</td>
<td>Very often, urban renewal can lead to gentrification in a specific area. As soon as a local authority begins to invest in the quality of an area, it suddenly becomes attractive for private developers catering for higher income groups, with the result that the lower income groups which often</td>
<td>Identify appropriate housing typologies for the context in which it is situated, ensuring diversity in terms of housing and tenure options.</td>
</tr>
</tbody>
</table>

"Poor physical fabric or social problems may have stigmatised an area. But 'problem places' can become 'opportunity places' through a quantum shift in their planning and marketing."
3. THE SPATIAL DEVELOPMENT CONCEPT

Refer to Figure 12.

The development concept is the result of a careful analysis and synthesis of a number of issues such as the national and local policy framework, the spatial characteristics of the area, its context, the structuring elements and the availability of public transport services.

These issues all contribute to the formulation of the desired development direction for the area.

The development concept for the Pretoria West Residential Precincts is based on the following four spatial interventions:

- To harness the development opportunities provided by the strategic location of the study area in relation to the Tshepiso Inner City as well as the Mitchell Street/Souter Street light industrial employment zone.

- To harness the development opportunities brought by the Church Street public transport corridor as well as the commuter railway line and Schutte Street Station. The presence of the station in particular requires the development of the surrounding area as a Transport Oriented Development area (TOD).

- The creation of walkable neighbourhoods with clear spatial structure and identity.

- The provision of local business and social services and facilities to serve the local residential population.

- Ensure a mix of land uses to support an integrated residential environment. This includes social facilities and local businesses.

- Identify areas and opportunities for recreation and open space.

- Ensure ease of access to public transport services through safe pedestrian linkages.

5. To create a convenient, integrated environment

A sustainable neighbourhood is one that is characterised by a mix of land uses and convenient access to public transport. Because of the fact that this area is in fact an extension of the inner city, all future developments should have a distinctly urban character as opposed to a suburban character. The aim is therefore to create a typical walkable, convenient urban environment where people have access to a range of services and facilities in their immediate surroundings.

- Ensure a mix of land uses to support an integrated residential environment. This includes social facilities and local businesses.

- Identify areas and opportunities for recreation and open space.

- Ensure ease of access to public transport services through safe pedestrian linkages.
Figure 12: Spatial Development Concept
CHAPTER 5: DENSIFICATION FRAMEWORK

1. INTRODUCTION

The purpose of this chapter is to provide specific guidelines for future densification in the three identified Pretoria West residential precincts in order to guide and manage private sector investment as well as public sector interventions and investment in the area.

As explained in the chapter dealing with the vision, the approach is to ensure the creation of a sustainable neighbourhood, rather than just looking at densities from a land use management perspective. In order to achieve successful densification in the area, it is important that an attractive, quality environment be created that can support the higher density residential developments. The following three aspects therefore need to be considered when new development takes place in the area:

The first two aspects deal primarily with individual developments, albeit private or publicly driven, and focus on the management of particular developments in order to achieve the desired character in the area. These aspects refer to both the land use management side of development as well as the building control (site development plan) stage, and both sets of guidelines (land use and design) should be taken into consideration when dealing with new developments.

The third aspect, namely streets and public environment, deals with the restructuring of the overall public environment and urban fabric. Although individual projects contribute to this, it is to a large extent the responsibility of local government, or at least public-private partnerships, to intervene in the neighbourhood and invest in the upgrading of the area and the provision of certain facilities and services. These projects should be prioritised as part of the Integrated Development Plan budget allocation process.

2. LAND USES AND DEVELOPMENT CONTROLS

Refer to Figure 13.

The densification strategy for the Pretoria West residential precinct focuses on the creation of five densification or land use zones for the area, namely:

- Density Zone 1
- Density Zone 2
- Density Zone 3
- Activity Streets
- Commercial Spine

Each of these zones will be dealt with in the tables below in terms of location, desired urban form rationale, desired land uses, extent of buildings and general development controls.

Note: Although the area to the east of the railway line, between Matlaz, Church and Stout Street, was not originally included as part of the study brief and therefore the initial study area, it will be included as part of the densification framework for the sake of managing development in those three street blocks as well. These properties already have high density residential land use rights.
### 2.1. Description and Character

<table>
<thead>
<tr>
<th>Density Zone 1</th>
<th>Location</th>
<th>Desired Character</th>
<th>Rational</th>
</tr>
</thead>
</table>
| 1. Precinct 1: | - The erven east of Rebecca Street up to the railway line.  
- The erven to the south of Servaes Street | Density Zone 1 is the priority densification area in the study area, and the area where the highest intensity of residential development needs to be achieved. The development typology envisaged in this zone comprises of medium rise blocks of flats. Because of the fact that this area is the priority densification zone, low intensity developments (other than those that currently exist or permitted in terms of the current zoning) should not be permitted in this specific zone.  
The residential buildings in this area should either be blocks of flats comprising fully functional dwelling units as defined in the Tshwane Town Planning Scheme, 2008 or hotels. No residential developments with communal facilities should be permitted in this area (e.g. Hostels, boarding houses and blocks of tenements).  
Architectural quality and design criteria are also of the highest priority in this area. | There are two factors that determine the importance of these areas for densification, namely:  
- The presence of the Schutte Street Station; and  
- The Church Street high priority public transport route |
<p>| 2. Precinct 3: | - The erven south of Christoffel Street, east of Maltzan Street and west of D.F. Malan Drive. | | |</p>
<table>
<thead>
<tr>
<th>Density Zone 2</th>
<th>Location</th>
<th>Desired Character</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Precinct 1:</td>
<td>The area to the north of Frederick Street, west of Rebecca Street</td>
<td>This area is also a focus area for densification, but at a lower intensity than that envisaged in Density Zone 1. In this area, low rise, walk-up blocks of flats or duplex dwellings are envisaged. Although it is still preferable to only permit developments comprising fully functional dwelling units in this zone, the need for communal type facilities in the study area is recognised, and can be provided in this zone. These developments (such as hostels, block of tenements and boarding houses) must however be carefully managed during the design stage to ensure that sufficient and appropriate communal facilities are provided. As is the case with Density Zone 1, new land use rights with lower intensity should not be approved in this zone.</td>
<td>In Precinct 1 and 2, the rationale for this densification proposal is the proximity (walking distance) to the Church Street high priority public transport route. In Precinct 3, the rationale for proposing this level of densification in the eastern part of the precinct is the proximity to the Inner City, and the transition zone between the higher intensity development in the Inner city and the lower intensity development proposed to the west of Ketjen Street.</td>
</tr>
<tr>
<td>2. Precinct 2:</td>
<td>The area to the south of Christoffel Street, west of the railway line.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Precinct 3:</td>
<td>The area to the east of Ketjen Street and north of Christoffel Street.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Density Zone 3</th>
<th>Location</th>
<th>Desired Character</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Precinct 1:</td>
<td>The area to the west of the railway line, between Frederick and Servaes Streets.</td>
<td>This area is largely seen as an area where the status quo (i.e. single dwelling houses) should be retained, but moderate levels of densification such as second dwelling houses and group housing can be permitted.</td>
<td>The current relatively low rate of higher density development in the city cannot justify a proposal to densify the entire study area in the short to medium term. Rather than allowing higher density development over the entire study area, and in the end creating an area where densification is loosely scattered across the area, the approach is rather to identify specific focus areas for densification to create agglomeration and critical mass in confined spatial locations (i.e. Density Zones 1 and 2). In the long term, once these two densification zones have been developed, this area (i.e. Density Zone 3) can be reconsidered for a higher level of densification.</td>
</tr>
<tr>
<td>2. Precinct 2:</td>
<td>The area to the north of Christoffel Street.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Precinct 3:</td>
<td>The area to the west of Ketjen Street and north of Christoffel Street.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Activity Streets</td>
<td>Location</td>
<td>Desired Character</td>
<td>Rationale</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>The even along Rebecca Street between Church and Soutier Streets.</td>
<td>The Regional Spatial Development Framework for the Central-western Region defines an activity street as “local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework”.</td>
<td>Although Church Street is a business corridor adjacent to the study area, the developments that take place along this street are generally of a higher order nature that provide a service on a regional basis. Because of the potential increase in residential population, there will be an increased need for convenience goods and services to serve the local population of these residential precincts. In line with the vision of attaining a sustainable neighbourhood, the provision of these activity streets is important because –</td>
<td></td>
</tr>
<tr>
<td>The even along Ketjen Street.</td>
<td>General characteristics of an activity street are: - Pedestrian dominated with slow moving traffic - On-street parking - Fine-grain urban fabric, short blocks, low rise buildings - Accommodate pedestrian intensive uses - High level of direct access - Speed calming - Provide public transport facilities - Activity preferably one erf deep</td>
<td>- A sustainable neighbourhood is characterised by a mix of appropriate land uses that complement each other; and - A pedestrian friendly environment, where the local population can access most services and facilities on foot is vital. These streets should therefore have a strong focus on local goods and services and the creation of a pedestrian friendly environment.</td>
<td></td>
</tr>
<tr>
<td>The even along Court Street between Church Street and Luttig Street.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The even along Luttig Street between Rebecca Street and Court Street.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Spine</td>
<td>Location</td>
<td>Desired Character</td>
<td>Rationale</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>The area along Rebecca Street, between Vom Hagen Street and Church Street</td>
<td>In terms of the existing Pretoria West Spatial Development Framework, Vom Hagen Street has been identified as a commercial spine. The framework is however not specific in terms of the land uses or character that should be established along this street. For the purpose of extending the commercial spine into Rebecca Street, the spine shall comprise Commercial Uses as defined in the Tshwanes Town Planning Schema, 2008. The aesthetic quality of the commercial spine is of importance, as it should not adapt the character of an industrial zone such as that found along Mitchell Street.</td>
<td>The land uses along Rebecca Street to the north of Church Street have already begun to show the same character as the development along Vom Hagen Street. It is therefore proposed that a commercial spine with the same characteristics as that of Vom Hagen Street be established along this part of Rebecca Street. However, because this street intrudes into the residential area, developments should preferably have a lower intensity and also be managed more carefully in terms of appearance and the integration with surrounding land uses.</td>
<td></td>
</tr>
</tbody>
</table>
### 2.2. Land Use and Building Controls

<table>
<thead>
<tr>
<th>Density Zone 1</th>
<th>Permitted Land Uses</th>
<th>Minimum/Maximum Height</th>
<th>FRS/Density</th>
<th>Specific Development Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Blocks of Flats</td>
<td>Minimum height: 3 storeys</td>
<td>Maximum FSR: 1.5</td>
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<tr>
<td></td>
<td>(comprising fully</td>
<td>Maximum height: 8 storeys</td>
<td>Provided that the following minimum size standards shall apply for dwelling units:</td>
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<tr>
<td></td>
<td>functional dwelling</td>
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<td>Studio: 25m²</td>
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<td></td>
<td>units as defined in</td>
<td></td>
<td>One bed: 33m²</td>
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<tr>
<td></td>
<td>the Thohwane Town</td>
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<td>Two bed: 40m²</td>
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<tr>
<td></td>
<td>Planning Scheme,</td>
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<td>Three bed: 57m²</td>
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<td>2008).</td>
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<td>The above sizes exclude balcony areas.</td>
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<td></td>
<td>• Hotels</td>
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<td></td>
<td>• Open space and</td>
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<td></td>
<td>sports grounds</td>
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<td></td>
<td>• Social and</td>
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<tr>
<td></td>
<td>community facilities</td>
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<td></td>
<td>(e.g. Place of child care, place of instruction, place of public worship, social hall, clinic, police stations and libraries)</td>
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</tbody>
</table>

Provided that in the area to the east of the railway line, between Maltzan, Church and Scatter Streets, ground floor shops, business buildings and places of refreshment may be permitted in order to achieve vertical mixed land uses in this specific area.

### Specific Development Controls

- Developments must comprise a mix of apartment sizes in the following ratio:
  - Studio apartments: 30%
  - Single bedroom: 40%
  - Two bedrooms: 30%

Provided that the ratio may be adjusted in favour of larger size apartments.

- Parking must be provided either in a basement, behind buildings or below buildings on ground level. Where the latter applies, the building shall be designed in such a manner that the parking shall not be visible from the street.

- Although land assembly is encouraged, the general development footprint must remain of a fine grained nature. A single developer of a large number of properties in a single street block must therefore ensure that diversity in terms of appearance and street frontages are introduced into the design of the development.

---

*Coverage and building lines shall be in accordance with an approved site development plan. No additional height shall be permitted for parking.*
<table>
<thead>
<tr>
<th>Density Zone 2</th>
<th>Permitted Land Uses</th>
<th>Minimum/Maximum Height</th>
<th>FRS/Density</th>
<th>Specific Development Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blocks of Flats</td>
<td>Minimum height: 2 storeys</td>
<td>Maximum FSR: 0.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duplex Dwellings</td>
<td>Maximum height: 3 storeys</td>
<td>Maximum density: 80 dwelling units per hectare</td>
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<tr>
<td></td>
<td>Hostels, Boarding</td>
<td></td>
<td></td>
<td>Parking must be provided either in a</td>
</tr>
<tr>
<td></td>
<td>Houses and Blocks</td>
<td></td>
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<td>basement, behind buildings or below</td>
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<td></td>
<td>of Tenements</td>
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<td></td>
<td>buildings on ground level. Where the</td>
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<td>Open Spaces and</td>
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<td>latter applies, the building shall be</td>
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<td></td>
<td>sports grounds</td>
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<td>designed in such a manner that the</td>
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<tr>
<td></td>
<td>Social and</td>
<td></td>
<td></td>
<td>parking shall not be visible from the</td>
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<td></td>
<td>community facilities</td>
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<td>street.</td>
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<tr>
<td></td>
<td>(e.g. Place of child</td>
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<td>Although land assembly is</td>
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<td>care, place of</td>
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<td>encouraged, the general</td>
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<td>instruction, place</td>
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<td>development footprint must remain of</td>
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<td>of public worship,</td>
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<td></td>
<td>a fine grained nature.</td>
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<tr>
<td></td>
<td>social hall, clinic,</td>
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<tr>
<td></td>
<td>police stations and libraries)</td>
<td></td>
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<tr>
<td>Density Zone 3</td>
<td>Dwelling House</td>
<td>Maximum height: 2 storeys</td>
<td>Maximum density: 25 dwelling units per hectare.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dwelling Units</td>
<td></td>
<td></td>
<td>For backyard rooms the</td>
</tr>
<tr>
<td></td>
<td>Backyard Rooms</td>
<td></td>
<td></td>
<td>following density will apply:</td>
</tr>
<tr>
<td></td>
<td>Guest Houses</td>
<td></td>
<td></td>
<td>A maximum of six (6) rooms</td>
</tr>
<tr>
<td></td>
<td>Home Enterprise</td>
<td></td>
<td></td>
<td>on the property may be</td>
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<tr>
<td></td>
<td>(as defined in the</td>
<td></td>
<td></td>
<td>rented out for the purpose of</td>
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<tr>
<td></td>
<td>Tshwane Town</td>
<td></td>
<td></td>
<td>accommodation.</td>
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<tr>
<td></td>
<td>Planning Scheme,</td>
<td></td>
<td></td>
<td>Backyard Rooms for the purpose of rental</td>
</tr>
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<td></td>
<td>2008)</td>
<td></td>
<td></td>
<td>accommodation shall be subject to the</td>
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<td></td>
<td>Open Spaces and</td>
<td></td>
<td></td>
<td>following conditions:</td>
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<td></td>
<td>sports grounds</td>
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<td>• Backyard rooms are defined as</td>
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<td>Social and</td>
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<td></td>
<td>residential outbuildings which have</td>
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<td></td>
<td>community facilities</td>
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<td></td>
<td>been developed as rental</td>
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<td></td>
<td>(e.g. Crèches,</td>
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<td>accommodation on single residential</td>
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<tr>
<td></td>
<td>schools, churches,</td>
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<td></td>
<td>properties in addition to the existing</td>
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<td></td>
<td>clinics, police</td>
<td></td>
<td></td>
<td>dwelling house.</td>
</tr>
<tr>
<td></td>
<td>stations, libraries)</td>
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<td></td>
<td>The Backyard Rooms shall be</td>
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<td>habitable rooms as defined in the</td>
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<td></td>
<td>Tshwane Town Planning Scheme, 2008</td>
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<td></td>
<td></td>
<td>• The main dwelling house shall</td>
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<td></td>
<td>remain on the property.</td>
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<td>• Only permanent structures with</td>
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<td>approved building plans may be</td>
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<td>permitted</td>
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<td></td>
<td></td>
<td>• The dwelling house must be</td>
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<td></td>
<td></td>
<td>occupied by the owner or his</td>
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<tr>
<td>Permitted Land Uses</td>
<td>Minimum/Maximum Height</td>
<td>FRS/Density</td>
<td>Specific Development Controls</td>
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<td>---------------------</td>
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</tr>
<tr>
<td>Blocks of Flats</td>
<td>Maximum height: 3 storeys</td>
<td>Maximum FSR: 1.2</td>
<td>representative, who will be responsible for managing the backyard rooms.</td>
<td></td>
</tr>
<tr>
<td>Shops and business buildings</td>
<td></td>
<td></td>
<td>No backyard rooms will be permitted between the main house and the street boundary. The rooms shall either be developed on the side of the house or to the back.</td>
<td></td>
</tr>
<tr>
<td>Dwelling House Offices</td>
<td></td>
<td></td>
<td>Communal facilities such as bathrooms and kitchen facilities must be provided to the satisfaction of the City of Tshwane Metropolitan Municipality.</td>
<td></td>
</tr>
<tr>
<td>No motor related activities, commercial uses, light industrial or industrial land uses may be permitted along these streets</td>
<td></td>
<td></td>
<td>All residential developments must comprise a vertical mix of land uses with business developments on ground floor.</td>
<td></td>
</tr>
<tr>
<td>Activity Street (1) Excluding the erven along Luttag Street and Rebecca Street.</td>
<td></td>
<td></td>
<td>Residential buildings must comprise fully functional dwelling units. No developments with communal facilities will be permitted along these streets.</td>
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<td>All uses to be of a local and fine grain nature.</td>
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<td></td>
<td>At least the ground floor of each building shall be used for business purposes.</td>
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<td>All activities on ground level must interact with the adjoining public space.</td>
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<td>Pedestrian walkways must be provided along these streets.</td>
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<td></td>
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<td></td>
<td>Parking of motor vehicles may not inhibit pedestrian or cycling movement.</td>
<td></td>
</tr>
<tr>
<td>Activity Street (2)</td>
<td>Permitted Land Uses</td>
<td>Minimum/Maximum Height</td>
<td>FRS/Density</td>
<td>Specific Development Controls</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| Erven along Luttag Street, between Rebecca and Court Streets | • Dwelling house offices (i.e. dwelling house which have been partially or fully converted to offices uses but which has retained the size and appearance of the original dwelling house)  
  • Purposes as set out in Density Zone 3 as described above.  
  • No shops, commercial uses or light industrial or industrial activities shall be permitted. | Restricted to existing dwelling house | Restricted to existing dwelling house | - |
| Commercial Spine | • Commercial Uses as defined in the Tshwane Town Planning Scheme, 2006 | Maximum height: 2 storeys | Maximum FSR: 1:0 | • Development must incorporate certain design principles such as pedestrianisation of sidewalks, public-private interface, extroverted rather than introverted developments etc.  
  • The privacy and amenity of adjoining residential developments must be respected, and measures must be incorporated into the design of buildings to ensure that the development will have no negative impact in terms of visual quality, sightlines, noise, light pollution or obnoxious smells. |
3. DESIGN GUIDELINES

3.1. General Design Guidelines

In any high density residential area design, both of the building itself as well as the public and private spaces around the building, is of the utmost importance to ensure a high quality and well functioning neighbourhood.

Higher density developments that take place can very often be bland and uninspiring, resulting in an unattractive environment and acting as advocates against densification. It is therefore the responsibility of the local authority to ensure that all developments that take place include design considerations.

The general guidelines that should be incorporated into all developments include:

- Upper levels of tall buildings must be set back to help create a pedestrian scale at street level.
- Orientate new buildings to optimise sunlight and amenity for dwellings, private open spaces and adjoining public spaces.
- All residential buildings must be designed in a manner which allows for views from residential units onto adjacent public spaces while controlling views into these units.
- Avoid creating blank walls, large service areas, car parking, continuous garage doors or dense planting at ground level street frontages of new developments.
- Use low height, transparent or partially open fences to create an impression of openness and permeability. If the site is fenced in, a palisade fence should be used for at least 75% of the length of the site. Solid boundary walls should only be placed where it is critical to provide for privacy of private outdoor spaces.
- Accentuate and identify building entrances by providing good visual and physical connections between the street and the lobby spaces.
- Screen or disguise above-ground parking areas in new developments from the street.
- Ground level parking areas should be broken up in small parcels and spread over the site. A break of at least 3 meters (soft landscaping or dwelling unit intruding and overshadowing the space) should be established between two parking pockets.
- No utilities such as pipes and air-conditioning units may be visible from the street. Where these need to be provided along a street frontage of a building, it must be disguised with architectural features.

Quality high-rise projects provide generous courtyards, rooftop gardens and terraces, decks or walking areas.

3.2. Street Block Design: Densification Zones 1, 2 and Activity Streets

A very important aspect that needs to be taken into consideration when approving developments is not to consider only the site, but rather the site in the context of the street block. All developments should contribute to the development of a specific street block development model, which basically comprise three essential elements:

- Perimeter buildings;
- Internal open spaces in the centre of the block; and
- Pedestrian movement and streetscapes around the edge of the block.
The most desirable outcome will be that a single developer acquires all properties in a single block, and to develop the whole block according to this model. For this reason land assembly should be actively encouraged.

When a street block is developed by a single developer, care should however be taken that a monotonous perimeter façade is not created. The design should therefore make provision for changes in height and appearance to create an interesting street façade.

It is however recognised that a single development on an entire street block will not always be possible, and that in many instances the development of a street block will comprise many single developments. However, all these developments should contribute to an overarching design approach.

When a street block is developed by a number of developers, who all contribute individually to the development of the block, the overall layout of the interior open space must be considered with the site development plan. The desired approach is that each developer will contribute individually to a larger core open space, and that these open spaces will eventually be consolidated and jointly managed and utilised by the residents of the developments in that block. The common boundaries between the various properties must therefore in the interim comprise boundary walls or fences that could be removed at a later stage to create a joint open space.

The advantages of having multi-storey perimeter buildings arranged at the periphery of the block are:

- create continuity in the street façade
- distinguish between public and private realm
- allow for green open spaces at core of block
- encourages richness and continuity

Figure 16: Brickfields Development Johannesburg Inner City
Figure 16: Schematic Street Block Development Model
4. STREETS AND PUBLIC ENVIRONMENT

Having provided guidelines for the developments on even, it is also important to consider the public environment as far as streets and public open spaces are concerned.

4.1. Public Open Spaces

There is currently only one park/sports ground in the study area, namely the park in the block between Scutter, Rose-Etta, Mitchell and Court Streets. This park is situated right on the edge of the study area in Precinct 1, and is for all intents and purposes inaccessible to the residents of Precincts 2 and 3, unless they drive there. The three precincts are physically and functionally separated from each other by either Church Street or the railway line, both physical barriers that are difficult to cross.

It is therefore important that a public open space be created in each of these precincts. As the municipality does not own land in these precincts, it means that the municipality will have to buy up land to accommodate these open spaces.

Not only is the public open space necessary to provide leisure activities and create opportunities for community social interaction, but it also provides natural and visual relief from a densified built environment. Overall the public open spaces contribute to more liveable environments.

The size of these public open spaces will depend on the success of the street block model with the joint open space in the core of the block. The more successful this model is applied, the less public open space will have to be provided for recreational activities.

4.2. Streets

The streets in the study area are currently characterised by a regular grid pattern that allows for an equal distribution of traffic movement throughout the study area. None of the streets are only local in nature.

An important component of the creation of a sustainable neighbourhood is the encouragement of pedestrian and cycling movements as opposed to vehicular movement. This means that certain areas should only be accessible to local traffic and rather focus on the creation of dedicated lanes for non-motorised transport. Streets should be made safe and attractive for pedestrians by creating attractive, shaded sidewalks and dedicated lanes for cyclists.

In terms of the existing Pretoria West Spatial Development Framework, 2001, "While the dominant grid pattern is very useful and works well, it may in future start to detract from the area, especially if congestion on the major roads should become a problem and people start rat-racing through the neighbourhoods

... it is proposed that certain strategic entrances to residential streets be narrowed and landmarked making it clear that the driver is entering a residential street where pedestrians have priority."

Within the road, between the two narrowed intersections, several options can be exercised, including:

- The curb/sidewalk can be extended on one side, or both, or curved to increase the green space along the tarmaced surface. Such space is then suitable for play/walking/gardening etc.
- The sidewalks can be narrowed to introduce a central park/green space with a single lane road on either side thereof.

The proposal with regard to streets is therefore as follows:

- a restructuring of the movement routes in the residential precincts to prevent through traffic from utilising these streets.
- The creation of dedicated lanes for pedestrians and cyclists; and
- The planting of street trees and landscaping along all streets to provide shade and an attractive environment for pedestrians. Landscaping should however consider the safety of pedestrians and no shrubs that may pose a security risk may be allowed.

All private developments must take cognisance of these requirements, and ensure that landscaping and paving on the sidewalks of developments contribute to the overall functionality and continuity of facilities along the streets.
CHAPTER 6: IMPLEMENTING THE DENSIFICATION STRATEGY

There are mainly two role players involved in the future development of the Pretoria West residential precincts, namely —

- Private developers; and
- The City of Tshwane.

The City of Tshwane has two responsibilities with regard to the successful development of this area, namely —

- Management and facilitation
- Investment

1. Management and Facilitation

Management and facilitation refer to the municipality's responsibility to manage land use and the quality of buildings. Should the municipality wish to successfully implement this densification strategy, then it is vital that the municipality take an active interest in the manner in which developments take place through ensuring that the guidelines in this Strategy are implemented. The successful implementation of this Strategy calls for a hands-on approach to development facilitation.

2. Capital and Operational Funding

As previously stated, the development of this area cannot be left entirely to the private sector. If the municipality is serious about urban renewal in the Pretoria West area and the creation of a high-quality higher density residential environment to support the Inner City, then the municipality will have to make certain operational and capital investments in the area. These projects must be budgeted for and included in the Integrated Development Plan budget process.

The regeneration of the Inner City is one of the priority development initiatives of the municipality. The regeneration of the Pretoria West area is closely linked to the regeneration of the Inner City and should therefore be afforded a high level of priority in terms of the budgeting process.

The following are some of the areas in need of intervention that have been identified.

- The municipality must identify and purchase centrally located parcels of land in each precinct for the creation of parks.

- A detailed traffic management plan and urban design framework for the street space in the study area must be drafted. This plan must indicate which streets can be closed (either partially or completely), where specific lanes for non-motorised transport can be provided and how the sidewalks can be upgraded to make provision for pedestrian movement as well as landscaping. This plan must ensure that future traffic can be accommodated on the road network of the area, and at the same time create opportunities for non-motorised transport and the improvement of the public environment through the downsizing of certain roads.

- The upgrading of engineering services such as electricity, water, sanitation, roads and stormwater.

- The drafting of a detailed Stormwater Master Plan. This plan must determine the effect of the densification on the existing drainage systems as well as the upgrades necessary to cope with the proposed densification.
Attention Mr. Ntobozo Zuma

Re: ANC LEP Desalination Strategy

The above refers. We wish to inform you that the ward committee and myself have no objections to the strategy we fully support it.

Yours Faithfully,

[Signature]

[Stamp: City of Tshwane]

[Stamp: City Planning]

[Stamp: 2008-08-07]
### ATTENDANCE REGISTER

**MEETING:** Public Participation for the Pretoria West Integrated compaction, and Densification strategy for the ward committees for ward 3.

**VENUE:** Danville Clinic

**DATE:** 03 March 2008

**TIME:** 17:00

<table>
<thead>
<tr>
<th>Name and Surname</th>
<th>Department/Organisation</th>
<th>Tel</th>
<th>Cell</th>
<th>Fax</th>
<th>Email</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebecca Dinyela</td>
<td>Council War Committee</td>
<td>021 354 1608</td>
<td>082 562 2437</td>
<td>071 371 49</td>
<td><a href="mailto:rebecca.dinyela@gmail.com">rebecca.dinyela@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td>Chris Moleko</td>
<td>War Committee Member</td>
<td>012 358 495</td>
<td>071 910 02</td>
<td></td>
<td><a href="mailto:Maliborko.Lesole@gmail.com">Maliborko.Lesole@gmail.com</a></td>
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<tr>
<td>Maliborko Lesole</td>
<td>War Committee Member</td>
<td>078 468 403</td>
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<tr>
<td>Reckson Munei</td>
<td>NPA Committee Member</td>
<td>012 674 7081</td>
<td>072 850 7252</td>
<td>(012) 673 2384</td>
<td><a href="mailto:reckson@mobile.com">reckson@mobile.com</a></td>
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<tr>
<td>Fhebele Singh</td>
<td>War Committee Member</td>
<td>012 323 1017</td>
<td>083 460 7353</td>
<td>012 323 1017</td>
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<tr>
<td>Ramondu Plessis</td>
<td>Plessis</td>
<td>085 452 822</td>
<td>083 458 7351</td>
<td>083 452 822</td>
<td><a href="mailto:Monarduplessis1@live.co.za">Monarduplessis1@live.co.za</a></td>
<td></td>
</tr>
<tr>
<td>Nthobacu Zuma</td>
<td>Ximba</td>
<td>012 584 7762</td>
<td>084 162 0013</td>
<td>021 556 9881</td>
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<td>Malukane T. Elle</td>
<td>Education Ward Committee</td>
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<td><a href="mailto:mohlaloga@ymail.com">mohlaloga@ymail.com</a></td>
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<td>Andile Mkhalo</td>
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<td>Rodney Mulenga</td>
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<td>Joel Masupha</td>
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<td>Letitia Morale</td>
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<td>Ntobeko Zuma</td>
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