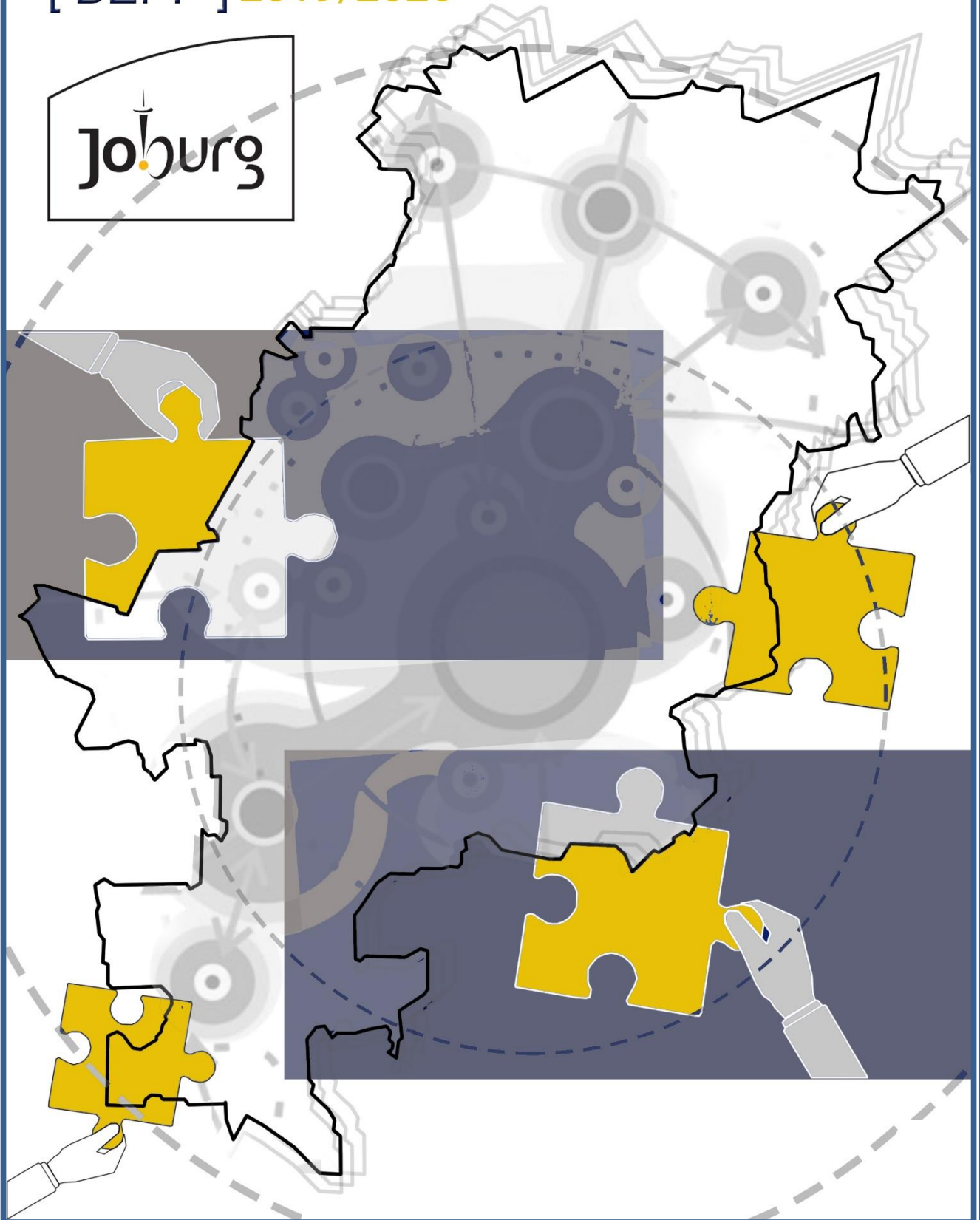


Draft - Built Environment Performance Plan [BEPP] 2019/2020

Joburg



ACRONOMYS

ABMF	Area Based Management Framework	JOSHCO	Johannesburg Social Housing Company
BEPP	Built Environment Performance Plan	JPC	Johannesburg Property Company
BEVC	Built Environment Value Chain	JSIP	Johannesburg Strategic Infrastructure Platform
BRT	Bus Rapid Transit	MFMA	Municipal Finance Management Act
CBD	Central Business District	MMC	Members of the Mayor Committee
CID	City Improvement District	MTREF	Medium Term Revenue and Expenditure Framework
CIF	Capital Investment Framework	NDPG	Neighbourhood Development Partnership Grant
CIP	Consolidated Infrastructure Plan	NMT	Non-Motorised Transport
CIPA	Capital Investment Priority Area	PICC	Presidential Infrastructure Coordinating Commission
CoJ	City of Johannesburg	PRASA	Passenger Rail Agency of South Africa
COSO	Committee of Sponsoring Organisation	RDP	Reconstruction and Development Programme
CRUM	Citizen Relation and Urban Management	RSDF	Regional Spatial Development Framework
DORA	Division of Revenue Act	SAF	Strategic Area Framework
GCR	Gauteng City Region	SCM	Supply Chain Management
GDS	Growth Development Strategy	SDBIP	Service Delivery Budget Implementation Plan
GMA	Growth Management Area	SDF	Spatial Development Framework
GMS	Growth Management Strategy	SHSUP	Sustainable Human Settlement Urbanisation Plan
GRAS	Group Risk and Advisory Services	SIP	Strategic Integrated Project
HSDG	Human Settlement Development Grant	SIPTN	Strategic Integrated Public Transport Network
ICDG	Integrated City Development Grant	SPLUMA	Spatial Planning Land Use Management Act
IDP	Integrated Development Plan	STIA	Spatially Targeted Investment Area
INEG	Integrated National Electrification Grant	TOD	Transit Oriented Development Corridor
ISO	International Organisation for Standardization	UDB	Urban Development Boundary
IPTN		UDF	Urban Development Framework
ITN	Integrated Transport Network	UJ	University of Johannesburg
JDA	Johannesburg Development Agency	USDG	Urban Settlement Development Grant

TABLE FOR WORDS USED INTERCHANGEABLY

SDF	BEPP
Deprivation areas	Marginalized areas
Corridors of freedom	Transit Oriented Developments (TODs)
Transformation zones	Integration zones
Unlocking Soweto as a True City District	Hub
Inner City (metropolitan core)	CBD/ Inner City
Consolidation Zone	Marginalized areas plus established sub-urban areas
Urban Development Zone	Integration zones

TERMINOLOGY

The following terminology is taken from the National Treasury Guidance Note: BEPP Framework v.5.5 08/2017.

Catalytic Urban Development Programmes

Catalytic urban development programmes and associated projects are programmes that:

- a) Enable integration, that is mixed and intensified land uses where the residential land use caters for people across various income bands and at increased densities that better support the viability of public transport systems;
- b) Are strategically located within integration zones in metropolitan municipalities; and are game changers in that the nature and scope of the projects are likely to have significant impact on spatial form and unlock economic activity.
- c) Involve major infrastructure investment;
- d) Require a blend of finance where a mix of public funds is able to leverage private sector investment as well as unlock household investment;
- e) Require specific skills across a number of professions and have multiple stakeholders.

Catalytic development programmes are an ensemble of related projects (public: municipal, public: non-municipal and private (Public Private Partnerships, Special Purpose Vehicles, and pure private development projects) needed to be implemented within a specific spatial targeted area and from which the total intergovernmental project pipeline is updated for all public-sector projects in the programme.

The catalytic programme development process delivers a series of built environment projects to be implemented by either national, provincial, municipal or private sector which will progressively put cities on the path to achieving compact cities and transformed urban spaces and are therefore outcomes led.

Densification

Increased use of space, both horizontally and vertically, within existing areas/properties and new developments, accompanied by an increased number of units and/or population threshold.

Economic/Employment Node

Employment or economic nodes are localised urban agglomeration economies with the highest number of jobs per unit of area (job densities). They are the primary urban destinations and therefore are mostly located on major transit routes and accessible via a variety of transport modes. In terms of land use, employment nodes can either be mixed – a cluster of office, retail, industrial, community and residential land uses; or uniform - homogenous land uses such as industrial or office complexes. Building heights and land coverage in economic nodes are much higher compared to average urban places. In terms of life cycle stage, they can be segmented into emerging (township nodes or urban hubs), established (decentralised commercial nodes) and declining nodes (CBDs). Size and

catchment area of economic nodes are characterised into a descending hierarchy, e.g. Regional, CBD, Metropolitan, Suburban and Neighbourhood.

Human Settlements Development

The Department of Human Settlements defines a human settlement as a developed and/or developing human community in a city, town or village – with all the social, material, economic, organisational, spiritual and cultural elements that sustains human life. Human settlement development refers to the establishment and maintenance of habitable, stable and sustainable public and private residential environments to ensure viable households and communities within a space and/or areas providing for economic opportunities, health, educational and social amenities in which all citizens and permanent residents of the Republic, within a municipal space will, on a progressive basis, have access to permanent residential structures with secure tenure, internal and external privacy and providing adequate protection against the elements; and potable water, adequate sanitation facilities and domestic energy supply.

Informal Settlement

The National Upgrading of Informal Settlements Programme refers to two UN Habitat definitions of Informal Settlements. An 'Informal Settlement' exists where housing has been created in an urban or peri-urban location without official approval. Informal settlements may contain a few dwellings or thousands of them, and are generally characterised by inadequate infrastructure, poor access to basic services, unsuitable environments, uncontrolled and unhealthy population densities, inadequate dwellings, poor access to health and education facilities and lack of effective administration by the municipality. (NUSP 2013, taken from UISP Consolidation Document-2014).

Another definition in use which is similar to the above is: "Residential areas where 1 inhabitants have no security of tenure vis-à-vis the land or dwellings they inhabit, with modalities ranging from squatting to informal rental housing, 2). the neighbourhoods usually lack, or are cut off from, basic services and city infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas". The UN-Habitat (2015).

Integrated Planning

Integrated planning refers to the co-operation of different sector department, different spheres of government, parastatals and the private sector in order to achieve publicly participated and accepted development outcomes.

Intensification / Mixed Land Use

Achieving a greater spectrum of land uses (commercial, industrial, residential or social) through the increased use of space, both horizontally and vertically, within existing areas or properties and new developments, within a TOD precinct, resulting in increased population thresholds that support public transport ridership, walkability, economic development and inclusivity.

Integration Zone (IZ)

The Urban Network consists of a number of Integration Zones. Each zone is a part of a city or city region-wide TOD network. An integration zone is a spatial planning element facilitating spatial targeting of investment aimed at spatial transformation. Each zone consists of a transit spine connecting two anchors via mass public transport (rail/bus) e.g. the CBD and an 'urban hub' (township node with the best investment potential). It can also comprise of the CBD and another primary metropolitan business node. Between the two Integration Zone anchors area limited number of Integration Zone intermediate nodes that are strategically located at key intersections connecting to marginalised residential areas (townships and informal settlements) and economic nodes (commercial and industrial nodes) via feeder routes. The Urban Hub connects to secondary township nodes within the marginalised peripheral township. The Integration Zone includes a hierarchy of TOD precincts located and prioritised within the structure of the nodes described above.

Intergovernmental Project Pipeline

The intergovernmental project pipeline consists of both catalytic and standard projects (not all projects, only that of a strategic/priority nature) within the metropolitan space whether it is a project of the national, provincial or metropolitan government, or that of a public entity. The main purpose of the pipeline is for it to incorporate projects from all spheres and entities to prioritise collective public investment in particular spaces.

Land Value Capture (LVC) / Land Based Financing

A policy and regulatory mechanism that allows a public entity to "capture" a portion of the increased value (direct or indirect) of land resulting from either investment in infrastructure or the allocation of use rights by the public sector.

Marginalised Areas

Marginalised areas are areas, primarily residential in function with related land uses, which are in decline and/or where people are deprived. These are areas that are typically informal settlements and dormitory residential townships in need of redress. These are areas that do not tend to be the focus of the private sector developers and will thus require some kind of intervention from government to start with if they are to flourish as liveable neighbourhoods with high accessibility to the broader urban network.

Mixed Land Use

A mix of land uses or achieving greater spectrum of land uses. More specifically it relates to an area of existing or proposed horizontal and/or vertical integration of suitable and compatible residential and non-residential land uses within the same area or on the same parcel of land; implies contextually appropriate intensity of land uses that should facilitate efficient public transport and a vibrant local urban environment.

Spatial Targeting

A built environment investment prioritisation approach where specific areas are prioritised for investment at a range of geographic scales, within an urban system, to achieve particular development outcomes. Spatial Targeting is an approach recommended by the National Development Plan.

Spatial Transformation:

The legacy of apartheid – communities segregated from one another based on race (and class) - as well as the impacts of the legacy of the modernist trend of city building based on the automobile and functional separation of land uses have left South Africa with cities that are inefficient, inequitably developed, and expensive – environmentally, socially and fiscally – to live in and to manage. The NDP states that a national focus on the spatial transformation of our cities should, by 2030 ensure that a larger proportion of the population should live close to places of work and travel distances and costs should be reduced, especially for poor households. Urban systems – hard (physical structures and networks) and soft (governance systems including urban management and land use management) that facilitate and enable compact cities and transformed urban spaces of social and economic inclusion on an equitable basis are key levers to overcome the debilitating impact of distance and separation on the fortunes of the individual, household, business and the state, as well as the environment and the resilience of the system as a whole. The equitable redistribution of resources within cities, as well as building systems that facilitate affordable and safe access to the full ambit of resources that makes urban living productive are critical to spatial transformation.

Transit-Oriented Development (TOD)

TOD directs public and private investment to areas of maximum public access in a city, doing it in a way that creates liveable environments. In the context of the BEPP, included in TOD would be spatially targeted areas. TOD is designed to maximize access to rapid/frequent public transport and encourage ridership.

The symbiotic relationship between land use, built form and public transport lies at its core. From a transport perspective TOD is focussed on promoting sustainable public transport while minimising the travel mode share of private motor vehicles and the negative externalities of this mode including reduced rates of private car parking. From a spatial development perspective, the focus is on mixed land use and increased residential densities in an improved public environment (high quality public spaces and streets, which are pedestrian and cyclist friendly) with high pedestrian accessibility within 500 metres to transit stations/TOD precinct.

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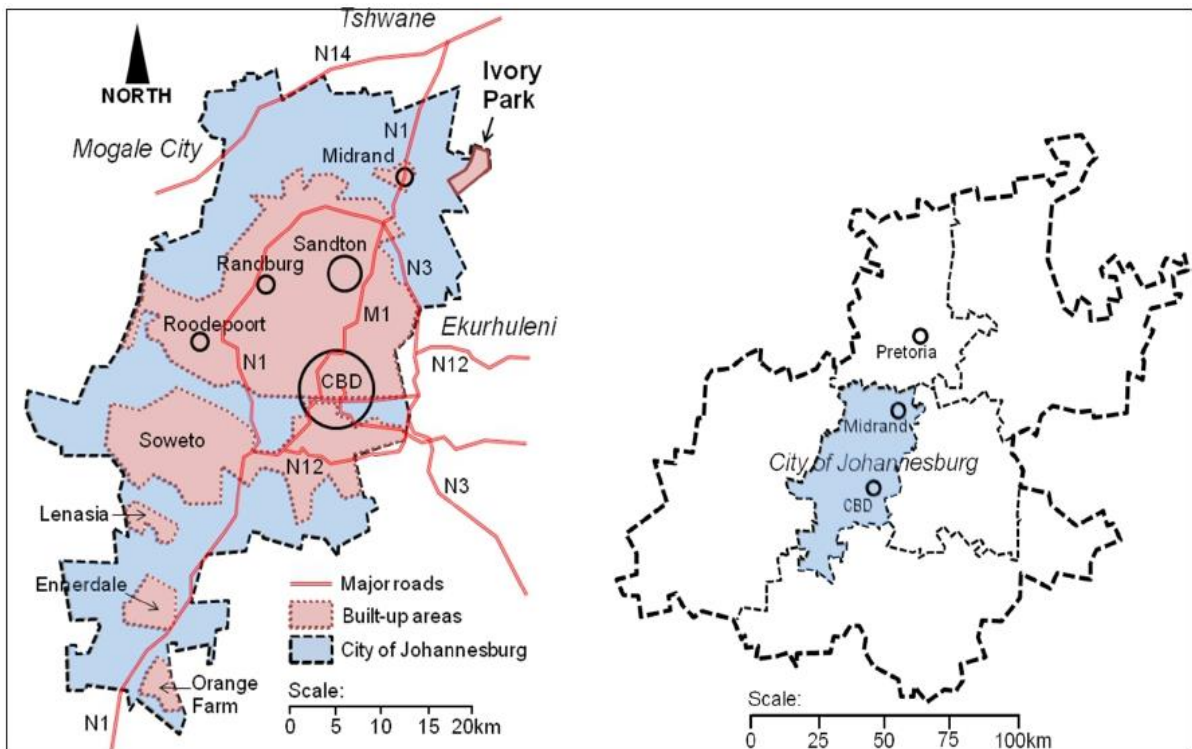
Confirmation of Adoption

City of Johannesburg Metropolitan Municipality Council resolution stating the adoption of the BEPP 2019/20 is attached and submitted to National Treasury by 31 May 2019 in compliance with the DORA (see attached Council resolution).

SECTION A: INTRODUCTION

A1. INTRODUCTION

The City of Johannesburg (CoJ) is a vibrant and culturally rich city, located at the centre of South Africa’s economic heartland, Gauteng province (see **Map 1: CoJ Locality Map in Gauteng Province**). CoJ struggles with the typical concerns associated with Cities in developing countries such as rapid population growth, sprawling development contributing to urban poverty, housing shortages, infrastructure backlogs, and environmental degradation. This is as a result of migrants (nationally and internationally) seeking political asylum, economic refuge and economic opportunities. The estimated population of CoJ was at 5.05 million people in 2017, which makes it the biggest metropolitan municipality by population size in South Africa. It is projected that this population could increase 5.4 million by 2021 and to 7.6 million by 2037. CoJ residents make up 36% of Gauteng’s population, and 8% of the population of South Africa. A great deal of the city’s population is young with a third of its residents being under the age of 35 years.



Map 1: CoJ locality map in Gauteng Province

CoJ was said to be contributing approximately 15% of national Gross Domestic Product (GDP) in 2016. The City has 2.04 million employed people which is 41.64% of the total employment in Gauteng. CoJ has, for much of its history, been a magnet for entrepreneurs and work seekers from across South Africa. However, over the past couple of years, growth in crucial job creating industries such as manufacturing and mining has declined significantly. This, compounded with the low economic growth in the city has contributed to the high rate of unemployment. This requires the city to pursue *inter alia* extensive investment in old and new infrastructure to support economic growth and create jobs. CoJ

has an inequality and poverty challenge and the ability of the city to drive a pro-poor agenda depends primarily on sustainable economic growth and a distribution of the benefits of growth. Given the rate of population growth and high structural unemployment, stronger economic growth is required to deal with the challenge of poverty.

CoJ is not immune to the impact of shifts in the global economy. With a global economy influenced mainly by shifting economic centres, new technology and fiercely competitive markets, the current trend in the city is slower economic growth in many of its business sectors. As such CoJ's ability to deliver on its social and economic goals is impacted by the developments in the larger global economic context. Thus CoJ's baseline economic growth is projected to reach 2.6% in 2021 from an average of 1.2% in 2018. The combined effect of slow economic growth and fewer jobs presents the challenge of social instability, which is characterised mainly by high levels of crime. In order to achieve the political target of 5% economic growth in 2021, several bold but pragmatic solutions will need to be adopted. A thriving private sector, and a city that attracts local and foreign investment are key to addressing the triple challenges namely unemployment, poverty and inequality thereby paving the path towards the City achieving its 5% growth target.

The CoJ continues to fight unemployment, which is one of the major problems facing South Africa as a whole. Unemployment is currently at 29.6% and youth unemployment estimated to be approximately 40% (Stats SA, QLFS 2017 Q3). In CoJ, the finance sector is the biggest employer in the region, accounting for 26.6% of total employment, followed by the trade sector which employs 21.1% of formal sector workers. The agricultural sector employs the least share of formal sector workers with only 0.4% (IHS Markit, 2017). The informal sector employs almost 285 000 people in Johannesburg. The biggest number of informal economy jobs are generated in trade.

CoJ explores the following innovative approaches to stimulate growth:

- Catalytic development projects which change the economic growth and investment narrative for the city, including rejuvenation of the inner city.
- Deepening and broadening small business development, township economy and local spatial economic development in the city
- Expanding economic opportunities for young people and empowering the poor to transform their own lives
- Pursuit of investors of defined profiles (industry, value chains and type of investor) and understanding and offering them what they need.
- Attracting firms focusing on both domestic and export markets for goods and services
- Measures and investment to make the city function better and improve the locational offering for business in terms of attractiveness to work and live.
- Differentiation of the city from the rest of the country and other Metros to attract a larger share of the available investment pool.

The economic growth resulting from such measures should result in meaningful redress by expanding social support, providing access to services, investing in spatial development, addressing homelessness and landlessness, building inclusive communities and advancing human capital by the poor.

CoJ has a fragmented urban form. The city's current urban form is a consequence of apartheid planning that contributed immensely to the fragmentation of the city, with race-based townships deliberately developed on the periphery of the city, away from opportunities and resources. Accordingly, CoJ places of work are far from where the vast majority of the city's population lives. The historical north-south divide has contributed considerably to increased travel times given the reality that a large number of people live in the south of the city, commuting to jobs that are located predominantly in the north. The inner city is centrally located, closer to economic activity in the north, with demand for housing steadily increasing and now outpacing supply. The CoJ's spatial vision envisaged in the Spatial Development Framework (SDF) 2040 seeks to create a compact polycentric city with a dense urban core linked by efficient public transport networks to dense, mixed use, complimentary sub-centres, situated within a protected and integrated natural environment. This will address fragmentation, spatial disconnection, limited land use diversity, spatial inequality and the job-housing mismatch. These challenges are not foreign to other Cities in the country and therefore addressing them would result in achieving the desired spatial destination for South Africa envisaged in the National Development Plan (NDP) 2030. Thus the city spatial direction contributes immensely to the achievement of the greater vision of the province and the country.

CoJ faces a number of transport challenges. Key public transport interventions such as the Gautrain (a provincially led project) and the Rea-Vaya Bus Rapid Transport (BRT) system (a City-led initiative) have laid the foundation for a new era of mass public transport, but the use of these interventions is still relatively low when compared to other modes of transport such as minibus taxis. According to the GCRO's 2015 Quality of Life Survey, a majority (44%) of CoJ residents commute with taxis. However, the mini bus taxi sector is often seen as being unstable and often besieged with violence and crime. This is followed by 31% who utilise their private cars with only 0.6% and 0.3% who use the BRT and the Gautrain respectively. The increased use of private cars and taxis has resulted in increased traffic congestion and the City's transport sector continues to be the highest (38%) carbon emitter when compared to other sectors such as the industrial (28%) and the residential (26%) sectors.

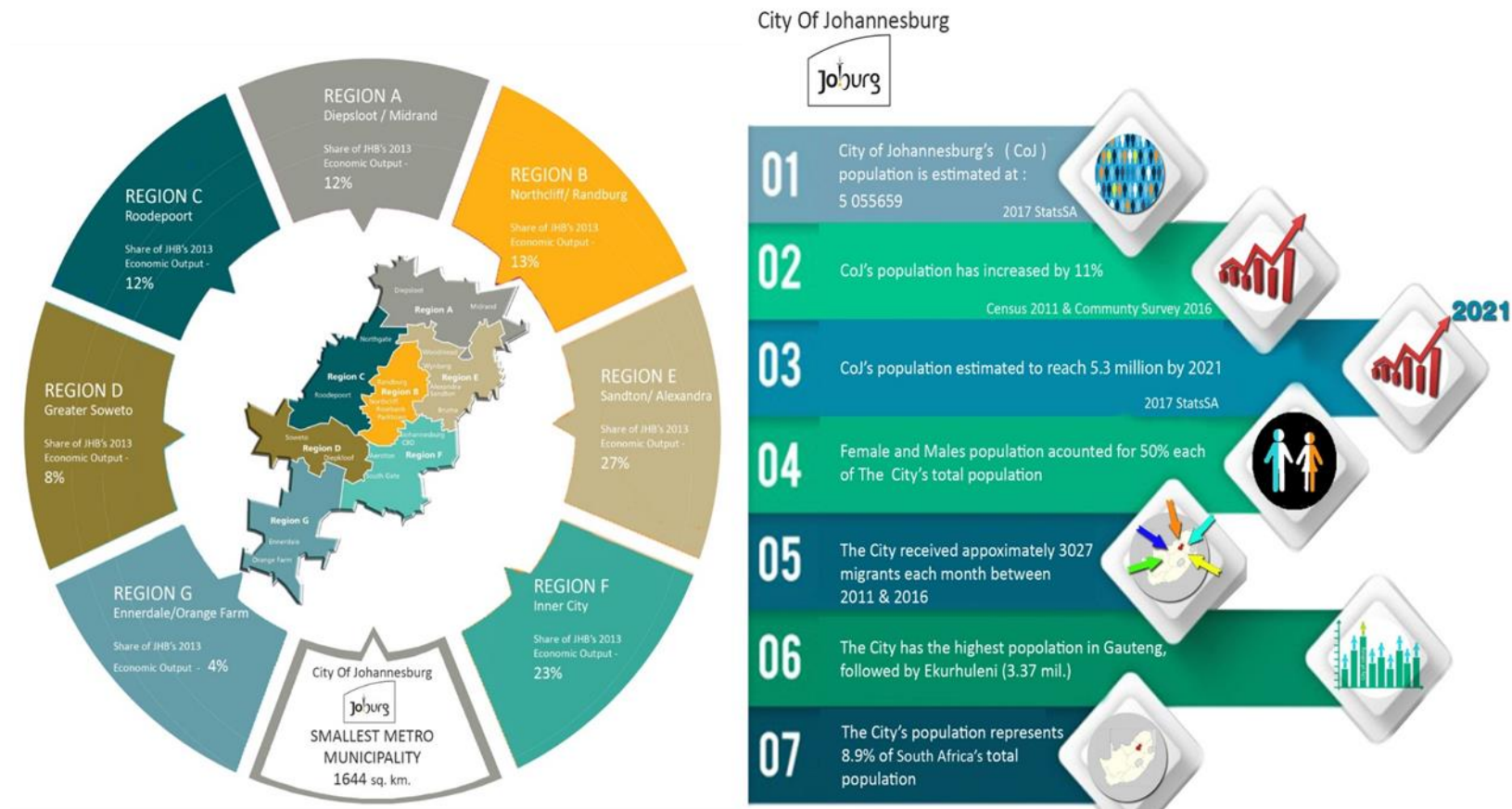
The strategic importance of the Johannesburg inner city is in its location in an economically valuable part of the city. It is strategically located in an area with a high number of rental apartments, business centres, and major transportation and economic nodes. In addition, the inner city provides marginalized communities – particularly from the south of the inner city - an entry point into the formal economy. It is home to the Gauteng Provincial and CoJ Metropolitan governments, and to some of the most established businesses in the country. The inner city boasts the biggest transport node in Africa, with trains, busses and up to 4 000 taxi's bustling through the city on a daily basis culminating at centres such as Park Station.

The inner city has a large asset base, with much of its service infrastructure under-utilised and in decline. The inner city is rich in cultural, sporting and heritage assets, including some of Johannesburg's most important facilities and venues, such as the University of the Witwatersrand, the Civic Theatre and Ellis Park stadium amongst many others. This contribute making the City an outstanding investment destination, offering the best access to markets across Africa, an investor-friendly environment, a stable democracy as well as excellent telecommunications and road infrastructure.

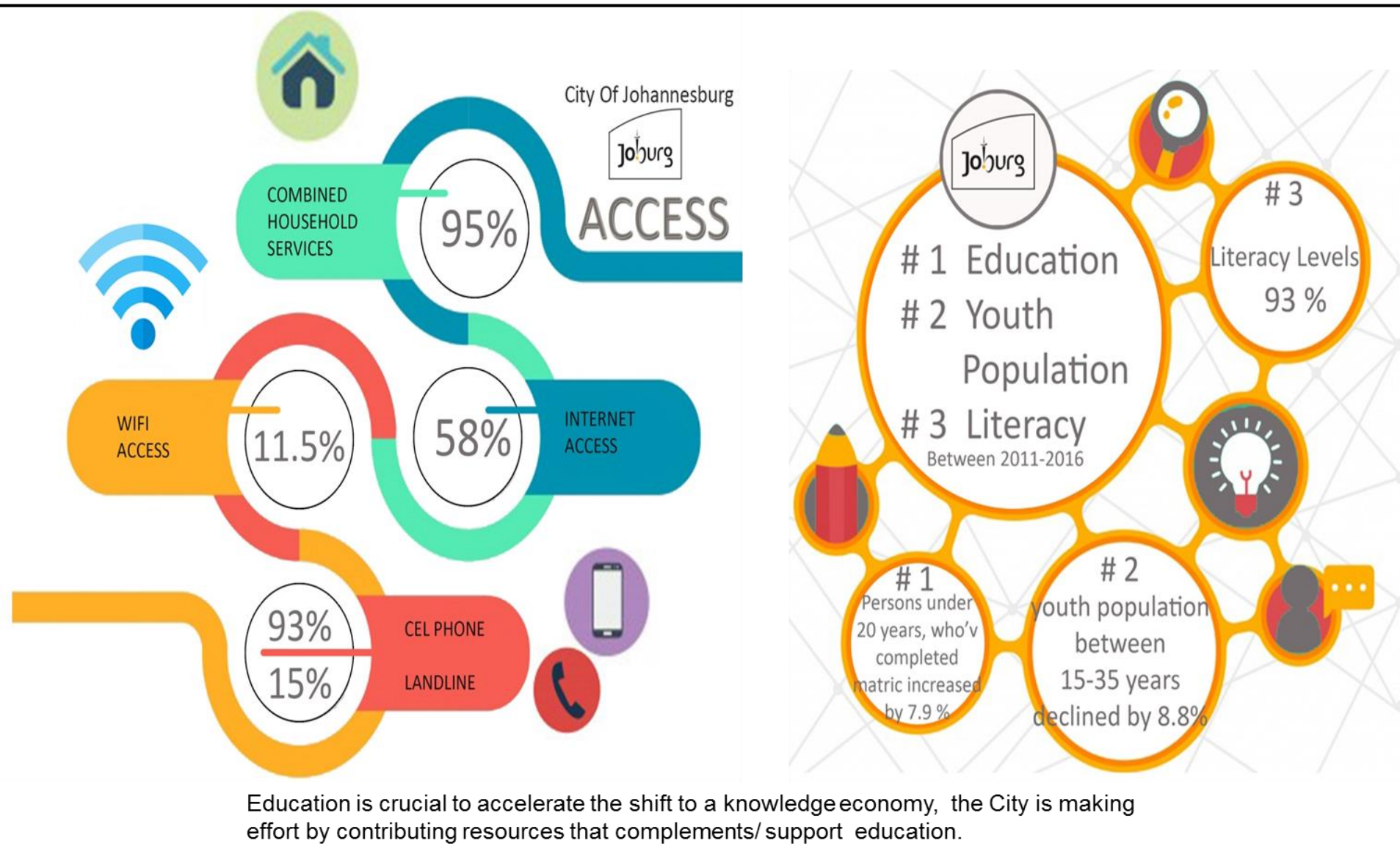
The housing backlog remains a major concern for the City. The formal dwelling backlog (number of households not living in a formal dwelling) is currently the highest backlog at 19.43% or 311 222 households. In 2006 the number of households not living in a formal dwelling stood at around 260 000 whereas in 2016 it reached 311 000. To add to this, not only has the number of households living informally increased but the backlog as a proportion of total household dwelling units has been growing at a rate of 1.81% annually. Ensuring residents live in formal dwellings offers a means to assure that people are getting basic services (water, electricity, waste removal). Improving housing provision is therefore a central driver underpinning many of the City's plans.

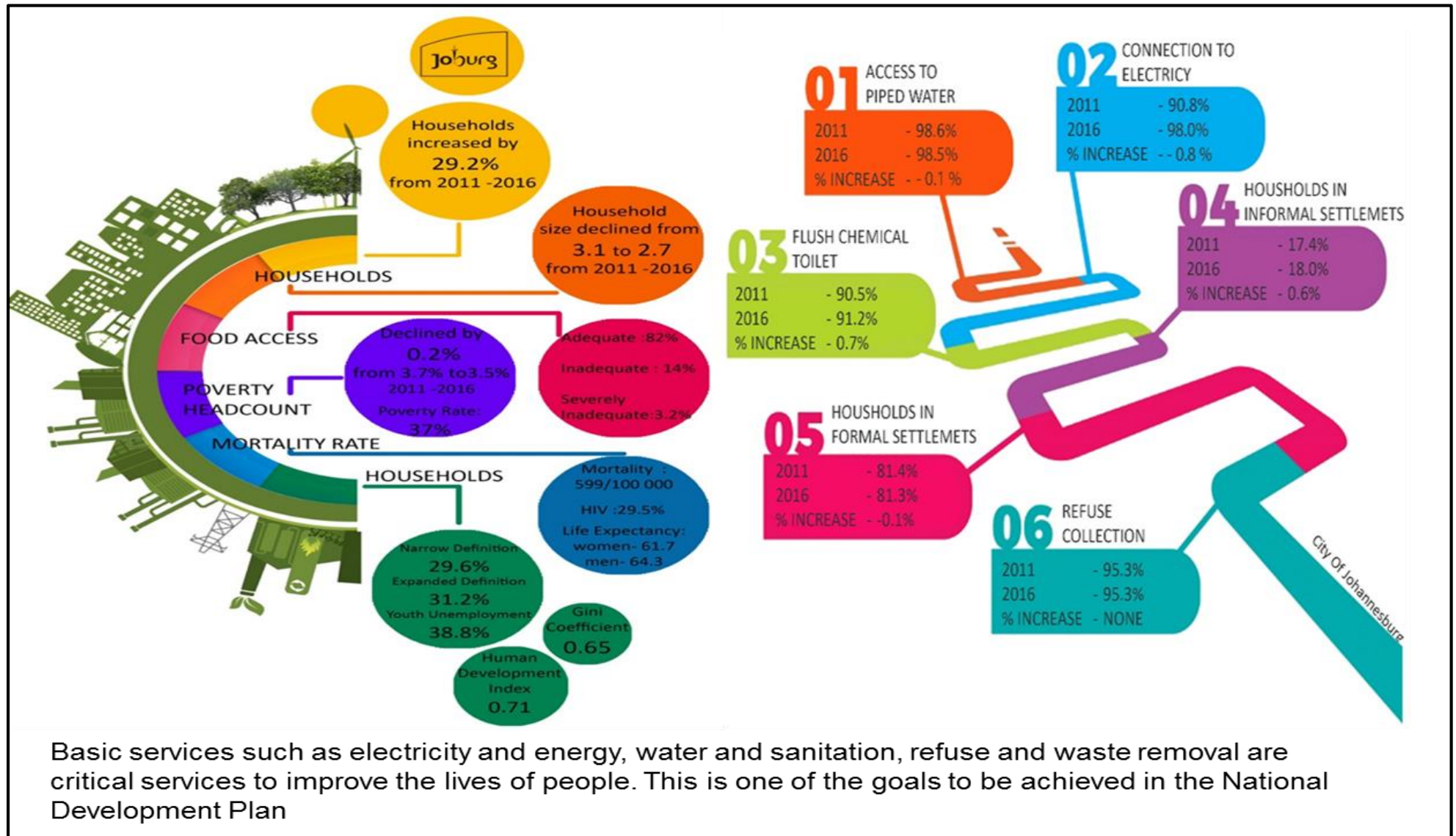
1 290 000 households or 80.58% of all households in the City live in formal dwellings. This leaves a total number of 289 000 (18.02% of total households) living in informal dwelling units, while a small proportion, 1.4%, live in either traditional or other types of dwelling units.

Figure 1: City of Johannesburg in Summary (Demographics)



The City is divided into 7 regions for ease of management, given the population size which is high





Basic services such as electricity and energy, water and sanitation, refuse and waste removal are critical services to improve the lives of people. This is one of the goals to be achieved in the National Development Plan

Long term vision

The 2018/19 BEPP Review marks the first iteration of the Integrated Development Plan driven by the new administration elected by the residents of the City of Johannesburg in the 2016 Local Government Elections: a DA-led coalition government.

The DA-led coalition government has proposed a new vision and mission for the City of Johannesburg in order to deliver on its mandate for change:

Vision:

“A Johannesburg that works, is a South Africa that works”.

Mission:

“To create an enabling economic environment by making Joburg more responsive in the delivery of quality services.”

The long-term plan of the City is to realise the City’s Vision in the Growth and Development Strategy 2040 (GDS 2040) which is under review. This change ushers in more than just a new administration, but a new strategic direction for the City in response to the mandate received by the coalition and their strategic partners. As the foundation for this strategic direction, the Mayor has adopted 5 pillars for his administration in order to address the challenges facing the City:

1. A growing, diverse and competitive economy that creates jobs;
2. Enhanced, quality services and sustainable environmental practices;
3. An inclusive society with enhanced quality of life that provides meaningful redress through pro-poor development;
4. Caring, safe and secure communities; and
5. An honest, transparent and responsive local government that prides itself on service excellence.

In addition to the 5 pillars, the Mayoral Committee adopted a set of 9 priorities as an expansion of this strategic focus:

1. Promote economic development and attract investment towards achieving 5% economic growth that reduces unemployment by 2021.
2. Ensure pro-poor development that addresses inequality, poverty and provides meaningful redress.
3. Create a culture of enhanced service delivery with pride.
4. Create a sense of security through improved public safety.
5. Create an honest and transparent City that fights corruption.
6. Create a City that responds to the needs of citizens, customers, stakeholder and businesses.
7. Enhance our financial sustainability.
8. Encourage innovation and efficiency through the Smart City programme.

9. Preserve our resources for future generations.

In driving a transformative agenda in the 2018/19 financial year that brings about change and making a real difference for the residents of Johannesburg, the City has identified key non-negotiable that will form the basis of the interventions and programmes the City will pursue for the remainder of the term. The City has taken these values and priorities and developed the *Diphetogo Project*. In SeSotho, *Diphetogo* means transformation, real changes. It demands that the City ensures residents and stakeholders of Johannesburg experience exceptional service standards.

SOUTH AFRICA AND JOHANNESBURG'S APPROACH TO CLIMATE CHANGE

South Africa's approach to climate change flows from the National Climate Change Response Policy or simply Climate Change White Paper. An exhaustive consultation process that started during the 2005 National Climate Change Conference preceded the development of the White Paper. This process was concluded successfully with the approval by cabinet in October 2011 in time for the COP17. The White Paper aims to reduce the rate at which climate is changing to levels that occur naturally, and especially reducing the atmospheric concentrations of Greenhouse Gas (GHGs) – mitigation, and responding to adverse effects of climate change – adaptation. The two instruments: mitigation and adaptation are universally accepted approaches to tackling climate change. Johannesburg climate change programme is in line with these imperatives. Furthermore, the programme is aligned to the 2040 GDS outcome that seeks to achieve provision of a resilient, liveable, sustainable urban environment underpinned by infrastructure supportive of a low-carbon economy. The following are the flagship projects that transition Johannesburg through the passage to the Joburg 2040 GDS vision:

Transport

- Implementation of the Rea Vaya Bus Rapid Transit System the first ever for Africa which has displaced over 500 taxis and minibuses and is used by over 50 000 patrons daily.
- It is estimated that if 15% of existing car users who live within 500m of the Rea Vaya corridors switch to the new system, there will be savings of 382 940 tons of carbon dioxide (CO₂) equivalent emissions by 2013.
- With the full implementation of Bus Rapid Transit it is estimated that the City will save 1.6 million tons of carbon dioxide equivalent emissions by 2020.
- Promotion of walking and cycling: Walking and cycling replaces car use which is more environmentally friendly and leads to a reduction in greenhouse gas emissions. The City has implemented the construction of cycling lanes along major routes in areas around the CBD.

Existing Buildings

- The City aims to reach emissions neutrality by 2050. One of the biggest energy consumers in cities are buildings. CoJ currently does not have specific city-wide policies towards achieving the aspirational “2030 net zero carbon new building” target. Hence the City has just initiated a two-year New Building Efficiency policy and by-law formulation process to outline the pathway towards net zero emissions. The New Building Efficiency policy will be a key instrument to inform new built in the City, and forms part of a larger programme of resource efficiency
- Five municipal buildings have been retrofitted with energy efficient lighting with a total saving of 100 tons of carbon dioxide.
- One hundred and four municipal buildings have been identified to be retrofitted under a larger energy efficiency building retrofit programme. This building retrofit programme will include lighting, cooling, and heating systems.
- Energy audits are currently being conducted in these buildings.

Water

- In a bid to encourage the reduction of water demand the city has embarked on an operation “gcina-amanzi” (Zulu word for save water) programme aimed at converting conventional to prepaid meters.

Waste Management and Energy Supply

- Waste minimization project through: reduce, re-use recycle and recover.
- The yield of electricity to be produced from landfill gas project in the 5-landfill sites is higher than expected.
- Already, since the start of the flaring of methane gas at Robinson Deep landfill site, the daily pumping of landfill gas at Robinson Deep is at 1500 cubic meters per hour and should rise to 3000m³ when the flare is operated at full capacity.
- This translates into 5MW of renewable electricity which will provide power for approximately 4-5000 houses reducing the greenhouse potential of landfill gas by approximately 149,000 tons of CO₂ per annum
- All five of the city’s landfill sites, Marie Louise, Robinson Deep, Ennerdale, Linbro Park and Goudkoppies will, in the near future, be converted from methane gas flaring to power generation sites and will be producing approximately 19mW of electricity which can supply 12 500 medium-size households over 20 years and beyond

Outdoor Lighting

- Nelson Mandela Bridge as another City Power’s initiatives has been retrofitted with 60 street lights of 9 watts of light emitting diode (LED) which replaced 150 watts metal halide gas lights in order to save energy and thereby saving costs.
- City Power also switches off the lights at Nelson Mandela Bridge, Queen Elizabeth Bridge, Orlando Stadium and Orlando West Regional Park during “Earth Hour” as a symbolic gesture to address Climate Change.

Urban Land Use

- The main challenge to biodiversity within the City of Johannesburg like the rest of the Gauteng Province of the Republic of South Africa is rapid urbanisation.
- The influx of people into the City of Johannesburg also results in the establishment of informal settlements.
- These settlements crop up in any open space including wetlands and riparian zones.
- This results in loss of critical biodiversity areas and poor catchment integrity due to pollution and siltation resulting from the removal of vegetation from the river banks.
- Alien vegetation is also a challenge within the City of Johannesburg.
- Residential densities are very low and land use patterns are characterized by segregated mono-functional land uses.

Solutions

- As one of the 21 Pioneer Cities of the ICLEI Local Action for Biodiversity Programme (LAB) the City of Johannesburg has conducted its Biodiversity Assessment.
- It went further to develop the City of Joburg Biodiversity and Action Plan 2015.
- Through Johannesburg City Parks the City has partnered with the Working for Water programme in controlling alien vegetation within municipal owned entities.
- The City's spatial policies is aimed at transformative densities and intensification of land uses, related to public transport and walkable neighbourhoods.

Human Settlements

- Cosmo City Climate Proofing Project which involves the provision of low pressure solar water heaters to over 1000 low income households including the provision of energy efficiency lights and planting of fruit trees.

Food and Agriculture

Tree planting and greening programme

- The City has made an impactful progress with its greening programme. This includes the 200 000 trees that have been planted since 2006.
- The project largely complemented the award winning Greening Soweto campaign aimed at developing and upgrading world-class parks in areas such as Soweto, Orange Farm and Cosmos City.
- These projects have led to an improvement in air quality in the city, and have acted as a catalyst in developing civic ownership, resulting in a decrease in littering, vandalism and dumping in parks.
- Furthermore, there has been rehabilitation of the southern catchments, park developments in disadvantaged areas, and the provision of green servitudes and ecological assessments of the City's catchments.

Food Gardens

- Overconsumption of processed foods has led to over consumption of fossil fuels. Organic food gardens produce fewer greenhouse gases and are better for the environment and our health.
- Organic food gardens are started at schools and communities. Prior to starting up the organic food garden youth and communities are trained to develop and sustain the garden thereby alleviating poverty.
- This project also allows community members to generate income through the production and sale of vegetables.
- A total of 30 vegetable gardens were developed within the City of Johannesburg, predominantly in schools, between 2010 and 2011. The project is aimed at supplementing the school feeding programmes and affords city parks a vehicle to grow green minds and hearts.

JOHANNESBURG, LOCAL AND INTERNATIONAL COLLABORATIONS

C40 cities represent a collective global population of about 300 million people. These cities are engines of economic growth collectively generating 18% of global GDP and 10% of CO₂ emissions. C40 cities find themselves having to balance the need to grow their economies on the one hand, and to curb anthropogenic (man-made) greenhouse gases emissions on the other. Having said this in May 2013, global CO₂ emissions reached a milestone level of 400ppm (parts per million). In 2005, when Intergovernmental Panel on Climate Change (IPCC) fourth assessment report (AR4) was released there were 379ppm CO₂ concentrations in the atmosphere. The (AR4) stated unequivocally that the increase of CO₂ concentrations in the atmosphere is as a result of human activities.

C40 announced at the global Rio+20 climate summit that C40 cities' existing actions would reduce global annual GHG emissions by 248 million tons in 2020, with the potential to reduce over 1 billion tons by 2030. Currently C40 cities have performed nearly 5000 climate change actions spanning a range of sectors. Most of these actions are focused more on mitigation initiatives, and C40 Mayors implemented only 450 adaptation actions. Climate Change adaptation seeks to address the challenges related to: risk of flooding; tropical cyclones; heavy rainfall urban heat island.

A more visible and memorable collaborative action yet, that seeks to address the climate change challenges mentioned above was the signing of the Adaptation Charter during the COP17 by over 11000 cities including all South African cities. The Adaptation Charter was a pioneering effort of South African government, South African Local Government Association (SALGA), South African Cities Network and ICLEI. Together, these stakeholders convened a local government summit during the COP17 in Durban, and at the end all cities committed themselves to the charter.

Current and Future Climate of Johannesburg

Current Climate

Gauteng province in which Johannesburg is located, sits at a relatively high altitude, with a summer rainfall subtropical climate and annual average rainfall of less than 800mm/year (Dyson, 2009). The high altitude results in moderate temperatures throughout most of the year, except for mid-summer when heat waves occur and winter night time temperatures can drop below 0°C. Historical rainfall trends across Gauteng show almost no changes over the past 60 years except for a possible slight decrease in overall autumn rainfall. However, the number of rain days has been declining during the summer months. While night-time minimum temperatures have been steadily increasing, daytime maximum temperatures show no significant trends which is unexpected given the regional patterns of warming (GCCRVA, 2007).

The climate of Johannesburg is also characterised by summer thunderstorms that tend to happen in the afternoons resulting at times in flash flooding. Hail, strong damaging winds and occasionally tornadoes sometimes accompany these storms, a recent case being that of Protea Glen on 30 Dec 2017.

Future Climate

Gauteng province continues to experience cycles of wet and dry years, with dry years tending to be warmer than wet years. However, increasing temperatures reach 2°C higher than the recent past sometime between 2040 and 2060, resulting in increased frequency and duration of hot spells in summer. Increased subtropical high-pressure belts produce enhanced subsidence over the province, suppressing convective activity, and moisture transport into the region. The result is reduced frequency and magnitude of rainfall events, and generally reduced annual rainfall totals. However, convective events, when they occur are more intense resulting in localised flooding and related damage (GCCRVA, 2007).

Gauteng province continues to experience cycles of wetter and drier years, with drier years tending to be warmer than wetter years. However, increasing temperatures reach 2°C higher than the recent past sometime between 2040 and 2060, resulting in increased frequency and duration of hot spells in summer. An intensified heat flow, driving enhanced moisture transport into the province, results in marginally increased annual rainfall totals. Convective rainfall events, when they do occur are more intense resulting in localised flooding and related damage (GCCRVA, 2007).

Climate Risk Assessment

A comprehensive climate risk assessment was conducted during the development of the 2009 City of Joburg climate change adaptation plan. At the centre of this assessment was that the City faces key climate hazards, viz: extreme temperatures and extreme storms. These climate hazards remain unchanged and they pose a risk to key sectors of the City including infrastructure. *Please note, this risk assessment can be corroborated by recent risk assessments done by Disaster Management.*

Change in Temperatures (Including Extreme Heat Wave Events)					
Risk	Likelihood	Magnitude	Confidence Level in Prediction	Key Sector	Overall Risk Rating
(T1) Increased Occurrence of Heat-related Deaths	2 - 3	2 - 3	Medium - High	Health, Disaster Management, Community Development & Livelihoods	Action Level A
(T2) Increased Energy Demand (Includes effects of increased humidity)	3	2	High	Infrastructure, Environmental	
(T3) Stress on Water Supply from Increased Water Demand (See related Risk X1 in Table 10d)	2 - 3	2	Medium - High	Infrastructure, Community Development & livelihoods, Environmental	
(TP4) Biodiversity impacts – Health Risks (Increased habitat range of diseases vectors for malaria, bilharzias etc. Includes effects due to changes in precipitation & humidity).	1 - 2	2 - 3	Medium	Environmental, Health, Community Development & Livelihoods	
(T6) Increased Urban and Veld Fire Risks	1	3	Low - Medium	Disaster Management, Community Development & Livelihoods, Infrastructure	Action Level B
(TP6) Biodiversity Impacts – Degradation of Ecosystems (Includes effects due to changes in precipitation & humidity)	2	1 - 2	Medium - High	Environmental	
(P7) Disruption to Public Transport: Increased Rail Track Warping	1 - 2	1 - 2	Medium	Infrastructure, Community Development and Livelihoods	
(T8) Air Quality Impacts – Increased ozone levels	1 - 2	1 - 2	Low - Medium	Environmental, Health, Community Development and Livelihoods	

Table 1: Extreme Temperature risks and associated impacts to sectors.

Change in Precipitation Patterns (Including Flooding and Spring Drought Events)					
Risk	Likelihood	Magnitude	Confidence Level in Prediction	Key Sector	Overall Risk Rating
(P1) Urban Flood Risk – Damage to Water Supply & Sanitation (Including related human health risks)	2 - 3	3	Medium	Infrastructure, Disaster Management, Community Development & Livelihoods, Environmental	Action Level A
(P2) Urban Flood Risk – Damage to property, personal injury and loss of livelihood	2 - 3	3	Medium	Infrastructure, Disaster Management, Community Development & livelihoods	
(P3) Urban Flood Risk – Increased traffic congestion and road accident	2 - 3	3	Medium	Infrastructure, Disaster Management, Community Development & livelihoods	
(P4) Urban Flood Risk – Damage to Electricity & IT	2	2 - 3	Medium	Infrastructure, Disaster Management, Community Development & livelihoods	
(P5) Increased Urban and Veld Fire Risks	2	2	Medium	Infrastructure, Disaster Management, Community Development & livelihoods	Action Level B
(P6) Increased Urban Flood Risks – Other Impacts: Environmental Damage	2	2	Medium	Infrastructure, Community Development & livelihoods, Disaster Management	
(P7) Water Supply shortage in CoJ Reservoirs (Spring Drought)	1 - 2	2	Low - Medium	Infrastructure	
(P8) Lost Construction Days	2	1 - 2	Low - Medium	Finance & Economy	
(P9) Business Disruption to Informal Traders	2	1 - 2	Medium	Community Development & Livelihoods, Finance and Economy	

Table 2: Change in rainfall patterns (e.g. floods and drought)

The risk matrix in Tables 1 and 2 can be explained thus: Magnitude and Likelihood for specific risks have been rated from 1 to 3. Qualitatively, these can be considered as: 1 - Low; 2 Medium; and 3 – High.

Action Level A: Prioritise for Adaptation: This action level requires attention at both senior management (i.e. director) level and at operational level within relevant departments. Consequences arising from climate change are considered to be probable and the impacts are likely to be very serious for the City.

Action Level B: Review Opportunities/Adapt within Constraints Current adaptations and controls, if any, should be reviewed to see whether there is room for improvement. If no controls are in place at present, some recommendations can be made to implement these. When capacity is available, risks at this level should be given more comprehensive attention. Risks should be periodically monitored through a regular review function (i.e. once every two years). The party responsible for monitoring the risk should be clearly defined.

Action Level C: Surveillance Monitoring: Risks should be periodically monitored to ensure that the risk assessment has not changed (i.e. once every two years). The party responsible for monitoring the risk should be clearly defined.

Action Level D: No Concern, Not regarded as a significant issue.

Johannesburg co-creation approach to adaptation

The City of Johannesburg is adopting a co-creation/co-design approach to building adaptation. This approach is in line with the systems and complex thinking that underpins the adaptive capacity development. This exercise is currently being undertaken as part of the review of the 2009 Adaptation Plan. Following the co-creation approach, the City of Johannesburg Departments' personnel identified several climate risks based on current climate variability, and projected future climate change concerns at a series of workshops organised within the City. The findings did not deviate significantly from previous assessments in the previous adaptation plan (e.g. increases in heat and related impacts; increases in energy and water demand; urban flood risks; biodiversity impacts and migration concerns).

Additions in recent workshops have included a key focus on the need for effective climate change governance across and between Departments; waste management and food security. Priority areas of focus, for the City, are being identified and revised by Departmental representatives. Strategies to address and implement an action agenda for adaptation are also underway as part of the City's Climate Action Plan development.

Following the co-creation approach, the process of identifying issues, selecting priorities and developing associated strategies also took place. This process took into account, the need to: (a) link adaptation to equitable economic development, (b) build upon and enhance the City's existing capacities, and (c) foster inter-departmental linkages, and linkages between the City and the Gauteng Province.

Priority areas for the beginning of a CCA Plan

The following six areas of focus for adaptive capacity development were identified in workshops that were attended by CoJ Department personnel. They will be expanded on in the next phases of adaptation planning with the wider City of Johannesburg. The identified KRAs are provided below (in their order of importance as identified by those at the workshops held):

1. **Climate change adaptation governance:** The main issues identified are low levels of mainstreaming climate change responses across the City, lack of integration of climate change responses into City Key Performance Indicators (KPIs), under-resourcing of climate change adaptation, and job insecurity.
2. **Water scarcity:** It is caused by droughts, destruction and degradation of water catchment areas and wetlands, water pollution, and increase in water demand that is worsened by a growing urban population (and urbanization).
3. **Floods and storm water:** They are caused by heavy rains and increased runoff, and worsened by old drainage infrastructure, inappropriate infrastructure, poor maintenance of storm water infrastructure, settlements and developments in low lying areas and wetlands. This has resulted in rising groundwater levels in some areas.
4. **Heat waves, human and environmental health:** Increased temperature, heat islands and heat waves are having negative impacts on human health, animal life and vegetation. Concerns about food insecurity linked to periods of heat and water stress are also concerns.
5. **Informal settlements and urbanisation:** The main issue is human settlements in climate vulnerable areas (especially exposed to floods) and affecting wetlands, worsened by increased urbanisation and associated pressure on open spaces, urban infrastructure and ecological resources.
6. **Infrastructure:** Many roads, bridges, drainage systems and buildings that are either too old, or in need of repair, no longer adequate or do not factor in energy efficiency and extreme weather events. Infrastructure challenges are worsened by inadequate maintenance.

Institutionalising climate change in the City of Johannesburg

The Environment and Infrastructure Services Department (EISD) is the champion department entrusted with the responsibility of coordinating climate action in the City. The EISD plays this role by developing climate change policies and plans, and coordinate climate actions across departments and entities.

Strategic Climate Action Plan (CAP)

International city networks like C40, of which Joburg is a member, have harnessed the energy of member cities towards the fight against climate change. In particular, C40 galvanised its member cities behind Deadline 2020 goal – a commitment to produce climate action plans that chart a pathway towards a net-zero carbon by 2050. Johannesburg is

currently in the throes of CAP development that will be delivered by 2020. Structures like the CAF are enablers to ensure that the plan is participatory, and also that it can enjoy widespread support and ownership. Policy instruments like the BEPP are critical entry points that can facilitate mainstreaming towards ensuring a climate resilient Johannesburg.

Climate Action Forum

Recently, a Climate Action Forum (CAF) was established in order to entrench trans-disciplinary collaboration. The CAF has been established to fulfil this need with an expressed intention to do the following:

- Enhance **knowledge sharing and data gathering**:
- Promote **intra-governmental coordination and cooperation**:
- Promote **policy integration and implementation of climate actions**:
- Identification of **research needs**

The formation of CAF promotes the transversal requirements that were proposed by the City's Chief Operations Officer (COO).

Institutionalising climate change through the CAF

Working together with C40, the City of Johannesburg has completed a strategic appraisal report wherein it reviewed climate change policies and strategies; and identified roles and responsibilities in mainstreaming climate change using the CAF as a platform. This process is being undertaken as part of the development of the City's integrated Climate Action Plan (CAP) that seeks to implement the goals set out in the Paris Agreement. Figure 1 illustrates how the City of Johannesburg plans to institutionalise climate change. The process of institutionalising climate change is an on-going one that includes identifying where the climate change core functions resides; strategic and policy drivers; identifying key implementers; and sections within the City that are responsible for finance mobilization. Climate Change is also being institutionalised through continuous engagement with the political leadership through the City's political cluster system.



Institutionalising climate change in the City of Johannesburg

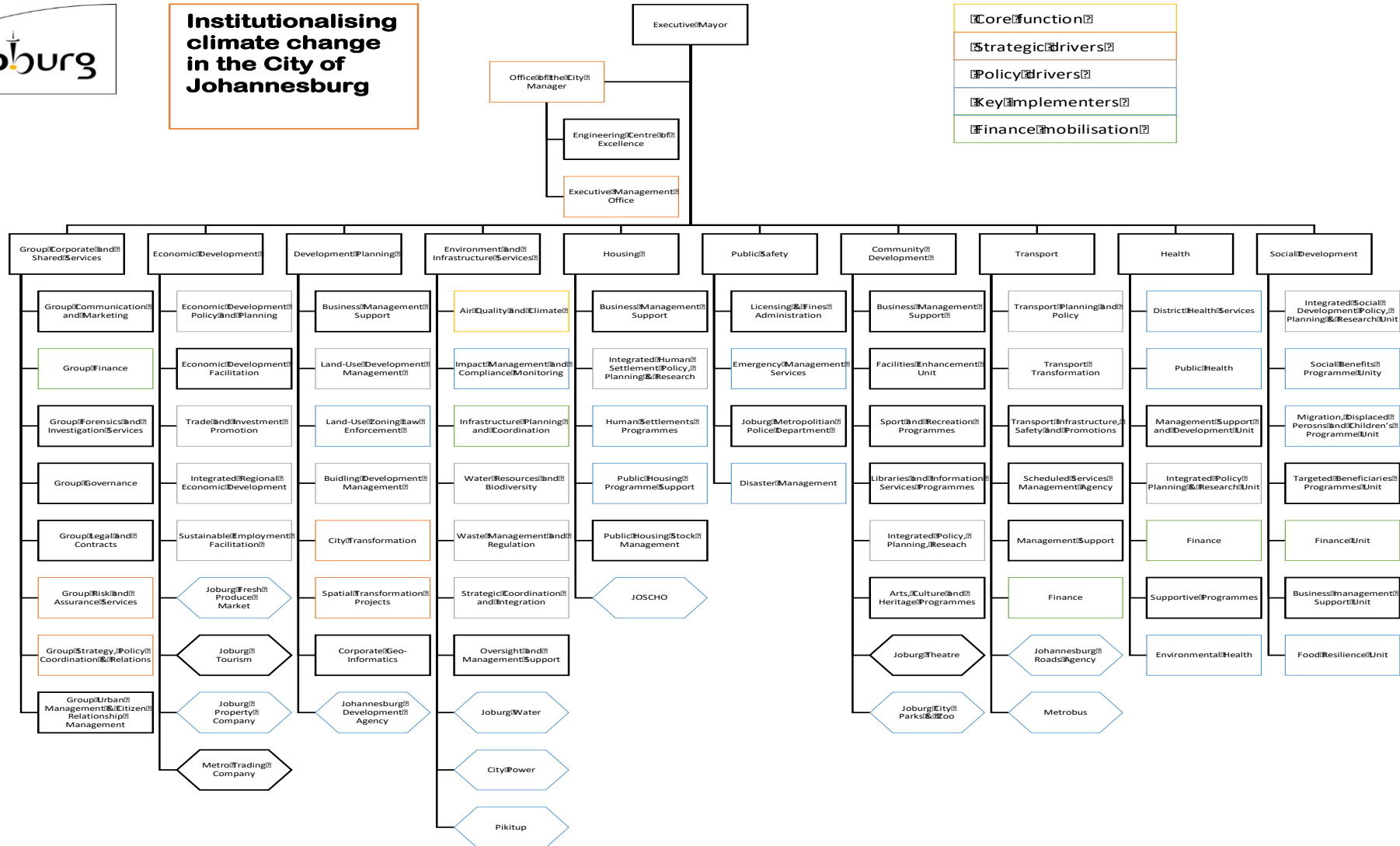


Figure 2: Institutionalising climate change in the City of Johannesburg

Management of climate change mitigation

The City of Johannesburg developed Greenhouse Gas (GHG) emissions inventory to manage its carbon footprint. The first Greenhouse Gas (GHG) emissions inventory of the City was developed in 2007, followed by the second Global Protocol for Community Scale GHG Emission Inventory (also referred as GPC) compliant inventory in 2015. Last financial year, the City also finalised its first ever GPC compliant Local Emissions Inventory, looking and focusing in emissions from City operations. In the current year, as a requirement of CAP, the City is in the process of developing its third GHG emissions inventory.

In order to effectively manage climate change mitigation, the City currently uses the scorecard system. The need to utilise the scorecard system came about in 2015, after the City of Johannesburg (through EISD) developed a Climate Change Strategic Framework (CCSF), building on the existing Energy and Climate Change Strategy and Action Plan. The CCSF culminated into the implementation of the scorecard system as part of the EISD's M&E structure. The CCSF also culminated into the inclusion of Key Environmental Indicators (KEI) to manage the performance of the data capturing, reporting and realization of the City's climate change objectives. Through the scorecard system, EISD is currently playing a central role in assessing the climate impact of projects and initiatives. City's entities do collect and make available relevant carbon offset data for the purposes of using EISD's expertise to make the necessary carbon calculations. Currently, key climate change mitigation indicators have been allocated to various departments and entities, namely City Power, on the energy sector; Johannesburg Water, on the water sector; Pikitup, on the waste sector; and the transport sector. The EISD currently receives carbon offset data on a quarterly basis and report these through the scorecard system.

City of Johannesburg Revitalization of Ecological Corridors

The City's natural resources are experiencing the negative impacts of urbanisation, which has resulted in encroachment into floodplains, loss of wetlands, and recharge areas, increased runoff of stormwater from hard surfaces, and pollution from a wide range of sources. The State of Rivers for instance has highlighted the poor state of the City's rivers, characterised by extensive erosion and channel formation, sediment build up, loss of riparian vegetation and aquatic biodiversity, increased flood risk and loss of amenity of rivers for City's residents. River and wetland rehabilitation projects are aimed at addressing these problems by undertaking bank stabilisation and prevention of ongoing erosion and sedimentation, restoration of vegetation and aquatic habitat and the introduction of bio filters to improve water quality, and the development of useable parkland alongside watercourses to improve the amenity of the City's rivers for residents.

Meanwhile open space planning aims to improve the protection and management of the whole landscape and to secure critical natural processes underpinning development, including important habitats and ecological linkages, protection of water catchments, and harnessing the benefits of 'Green Infrastructure' both natural and engineered. The function also considers important hydrological processes and the promotion of sustainable urban drainage and water sensitive urban design principles to reduce environmental degradation,

mitigate against flood risks and build resilience in the face of climate change. The open space planning function also seeks to ensure that there is adequate provision of social open space for recreation, to support a growing population and densifying city. Integrated open space plans help to ensure the application of findings within spatial planning processes and greening programmes.

Mainstreaming Climate Change into the BEPP

At the beginning of the adaptation plan review and update process, the BEPP as a critical policy lever was not interrogated. The city support programme from the National Treasury initiated a process to repurpose the BEPP so that it takes into account climate change adaptation and particular resilience concerns. Treasury have conducted a climate change screening exercise, and below is a summary of their findings about findings. *Please note: Ms Anthea Stephens presented the summary from the National Treasury. This is for illustrative purposes, and should you wish to publish the information, please contact her.*

Analysis of framework: COJ

- Review of IDP, SDF & BEPP against framework

Considerations for Integrating Climate Change in City Planning	City of Johannesburg
Climate risks: Understand and incorporate climate risk and vulnerability in city plans	Low
Project pipeline: Prioritise projects and programs that strengthen climate response efforts	Med
Strategic outcomes: Climate change is a strategic priority in city institutions, budgets and KPIs	Med



Guiding Factors for Analysis of Local Government Instruments		Plan	COJ
1	Takes into account climate change vulnerabilities and risks in the municipality during the lifespan of the planning instrument	IDP	Yes
		SDF	Partly
		BEPP	No
2	Identifies specific municipal assets and services likely to face the greatest impact from climate change	IDP	No
		SDF	No
		BEPP	No
3	Takes into account major sources of greenhouse gas emissions from within the municipality within the domain of the planning instrument	IDP	Partly
		SDF	Partly
		BEPP	No
4	Articulates (relevant) desired outcomes for climate change responsiveness in the municipality (either adaptation or mitigation or both, as the case may be)	IDP	Yes
		SDF	Partly
		BEPP	No
5	Contains (or directly supports) projects that are responsive to climate risks and vulnerabilities and help achieve the articulated adaptation outcomes	IDP	No
		SDF	No
		BEPP	No
6	Contains (or directly supports) projects that target greenhouse gas emissions levels and help achieve the articulated mitigation outcomes	IDP	Yes
		SDF	Yes
		BEPP	No
7	Reflects formal commitment and political buy-in at the municipal level for climate change response	IDP	Yes
		SDF	Yes
		BEPP	No
8	Estimates and/or earmarks additional investment and finance needed for climate change elements of the instrument, above business-as-usual allocations	IDP	No
		SDF	No
		BEPP	No
9	Identifies implementation responsibilities, partners, and governance arrangements for climate change components	IDP	Yes
		SDF	No
		BEPP	No
10	Includes climate-specific M&E indicators (if the instrument has a self-contained M&E framework), or includes climate related indicators from local govt. M&E frameworks	IDP	Yes
		SDF	No
		BEPP	No

Figure 3: A Snapshot of the Presentation given to National Treasury on Mainstreaming Climate Change into the BEPP

- *“The City of Johannesburg needs to build resilience to more heavy rainfall events, and be better prepared for flooding. It also needs to respond to the growing threat of high temperatures and heat waves (exacerbated by the urban heat island effect), as well as public health challenges fuelled by climate change.*
- *There is a need to evaluate whether the 2009 strategy and action plan had a tangible effect on city governance and administration, as well as in increasing the adaptive capacity of Johannesburg and reducing vulnerability. Given the advances in climate change science since the strategy was developed, the city recently embarked on the creation of a climate change strategic framework. This revised document may be a useful tool to ensure greater mainstreaming moving forward.*
- *Johannesburg has taken a number of important actions to respond to climate change. However, there are gaps in reflecting the prioritization of climate change across the three key strategic planning documents. Input from stakeholders in Johannesburg suggests that the city has been able to mainstream climate change into the implementation and periodic review and updates of its IDP and SDF, since both documents articulated the need for further mainstreaming. Moving forward, the city intends to devote greater attention to climate change adaptation / resilience, which historically had received less emphasis in planning and budgets than mainstreaming.” – Anthea Stephens*

Currently, Treasury is conducting interviews with critical sectoral personnel in the City with the view to explore in detail some of the issues highlighted in the table above. Whilst, the Environmental Infrastructure Service Department (EISD) is busy with the update of the 2009 Climate Change Adaptation CCA Plan.

The 2009 CCA Plan highlights the following climatic risks and associated impacts to the City:

- Increase in Heat related deaths;
- Increased energy demand;
- Increased water demand;
- Biodiversity impacts on disease vectors (health risks);
- Urban flood risk - damage to water;
- Supply and sanitation infrastructure;
- Urban flood risk - damage to property;
- Personal injury and impacts on livelihood;
- Urban flood risk - increased road;

- Accidents and traffic congestion;
- Urban flood risk to electrical and telecommunication infrastructure; and
- Disruption to water security (arising from outside the CoJ).

A2. THE PURPOSE AND ROLE OF THE BEPP

The Built Environment Performance Plan (BEPP) for the CoJ is a requirement by the Division of Revenue Act (DoRA) (Act no 3 of 2018), in respect of infrastructure grants related to the built environment of metropolitan municipalities. The CoJ first compiled the BEPP for the 2011/12 financial year as part of its motivation to seek the Urban Settlement Development Grant (USDG) (formerly known as the Municipal Infrastructure Grant - Cities). The document provides a brief strategic overview of the City's built environment and related capital investment. It provides a framework to measure and monitor the built environment. The BEPP is a long-term outcomes based strategic plan to be revised on an annual basis. Its primary purpose is to facilitate the spatial integration and transformation of the City through strategic programmes. The BEPP indicates how the City applies its capital financing including grant resources and other sources of finance. Other monetary components that are indicated within the BEPP include fiscal and regulatory instruments, incentives within its jurisdiction intended to impact on the outcomes of these interventions.

The BEPP is a document that seeks to strengthen government relations between the City, Gauteng Province and relevant National Departments. Furthermore it intends to provide better clarity in relation to the link between capital budgeting and various other resources allocated to the City. In turn the municipal plan provides a guideline for future Provincial and National Government programmes and funding. The BEPP is meant to complement existing strategic and spatial documents within the City, specifically the Growth and Development Strategy (GDS) – Joburg 2040, the Integrated Development Plan (IDP), the Spatial Development Framework (SDF) 2040, and the Service Delivery Budget Implementation Plan (SDBIP), see *Figure 4: Strategies and processes that inform the BEPP*, since the 2014/15 financial year, the BEPP acts as a motivation for a 'basket of grants' and not only the USDG.

NAME OF GRANT	PURPOSE OF GRANT
Integrated City Development Grant (ICDG)	To provide a financial incentive for metropolitan municipalities to integrate and focus their use of available infrastructure investment and regulatory instruments to achieve a more compact urban spatial form.
Urban Settlement Development Grant (USDG)	Supplements the capital revenues of metropolitan municipalities in order to support the national human settlements development programme focusing on poor households
Human Settlements	To provide for the creation of sustainable human settlements

Development Grant (HSDG)	
Public Transport Network Grant	To provide for accelerated planning, construction and improvement of public and non-motorised transport infrastructure
Neighbourhood Development Partnership Grant (NDPG)	To support and facilitate the planning and development of neighbourhood development programmes and projects that provide catalytic infrastructure to leverage third party public and private sector development towards improving the quality of life of residents in targeted under-served neighbourhoods (generally townships)
Integrated National Electrification Grant (INEG)	To implement the Integrated National Electrification Programme by providing capital subsidies to municipalities to address the electrification backlog of occupied residential dwellings, and the installation of bulk infrastructure and rehabilitation and refurbishment of electricity infrastructure in order to improve quality of supply.

Table 3: Municipal Grant Allocations to Municipalities – Division of Revenue Act.

The BEPP 2018/19 and the basket of grants will be aligned through:

- i. The Identification of priority areas for infrastructure delivery within the City of Johannesburg;
- ii. An amendment of conditions and output indicators used to measure the performance of the grants that highlight critical inter-dependencies such as the number of housing opportunities provided within 500m of a public transport stop or station;
- iii. Inclusion of provisions in DoRA relating to the alignment of infrastructure grants to a pipeline of prioritised projects;
- iv. Introduction of fiscal and regulatory instruments to catalyse private sector investment;
- v. Improving the management of strategic precincts and public transport operations within the urban network.

In addition to the above highlighted functions, the BEPP 2018/19 provides the baseline for human settlement indicators devised by National Treasury. It also measures urban integration within the City over an extended period of time. Future revisions of the BEPP will report on progresses of the discussed indicators to illustrate successes and areas that require more work.

A2.1 Positioning the BEPP in the Municipal System

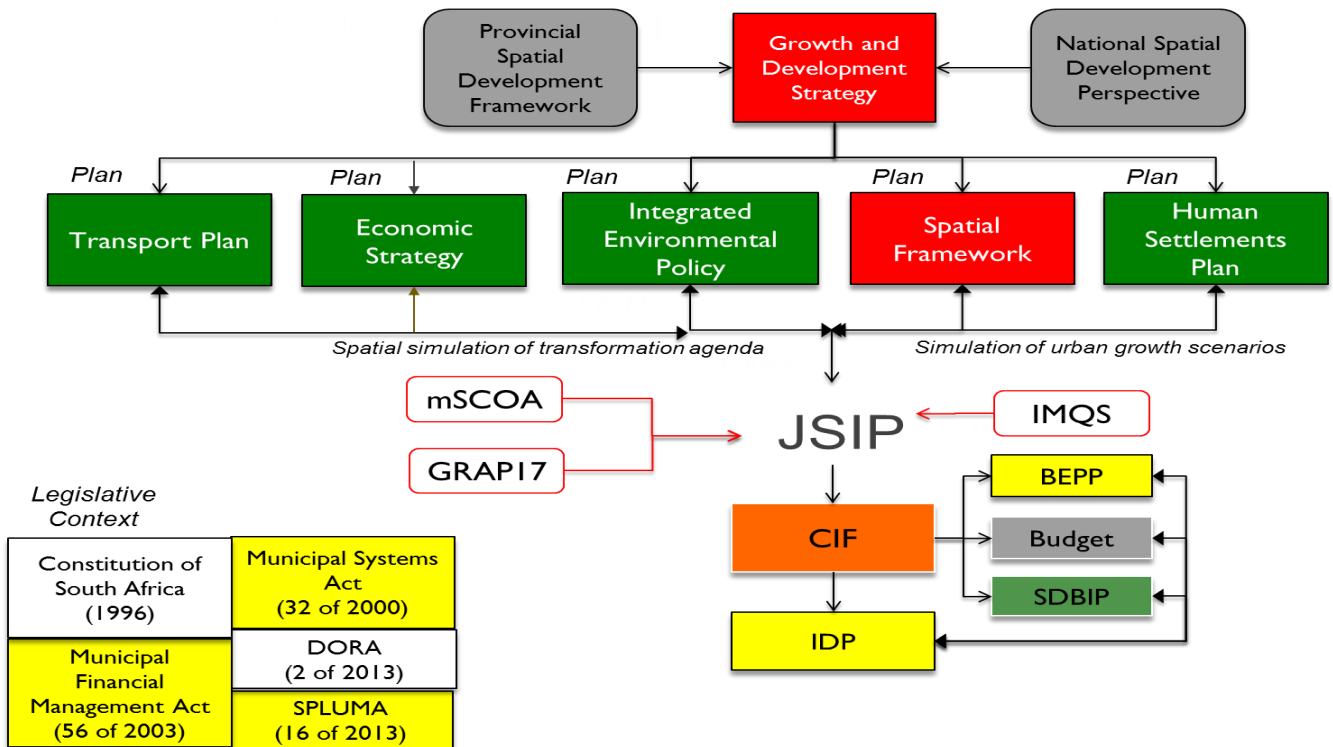


Figure 4: Strategies and processes that inform the BEPP

The Spatial Planning & Land use Management Act (SPLUMA) requires that the SDF has a Capital Investment Framework (CIF) to show how the municipal budget is implementing SDF priorities. The BEPP is designed to link the IDP/SDF to the municipal budget, it is a response to the challenge of misalignment of planning and the weak linkage between monitoring, planning and budgeting frameworks. It sits within the municipal planning system and bridges the gap between planning intention and implementation programmes and corresponding resource allocation, within a clear outcome led approach consistent with higher order plans and their governing legislation in the system.

A2.2 Alignment of SDF, IDP, BEPP and BUDGET

SPATIAL ELEMENTS	SDF	IDP	BEPP	BUDGET
UNS strategy	√	√	√	
TODs	√	√	√	√
Urban Management	√	√	√	√
Catalytic projects		√	√	√
Deprivation areas	√	√	√	√
Climate Change	√	√	√	√
Process plan		√	√	√
Spatial Model (polycentric compact city)	√	√	√	√
Capital investment	√	√	√	√

Table 4: Alignment of SDF, IDP, BEPP and Budget

The table (Table 4) above confirms alignment between the SDF, IDP, BEPP and Budget in respect of the Spatially Targeted Areas and the catalytic urban development programmes. The City's Growth and Development Strategy (GDS) and IDP are the primary point of reference for the Medium term budget.

The BEPP approach is to align, integrate and prioritise the spatial investment programs of the key sectors of the economy, transport and housing. The BEPP is intended to be a reference point for municipal, provincial and national spheres and all key stakeholders to make informed decisions and investments in the built environment and for these role players to align their plans and budgets.

A3. THE BEPP METHOD: AN OUTCOME LED BUILT ENVIRONMENT VALUE CHAIN

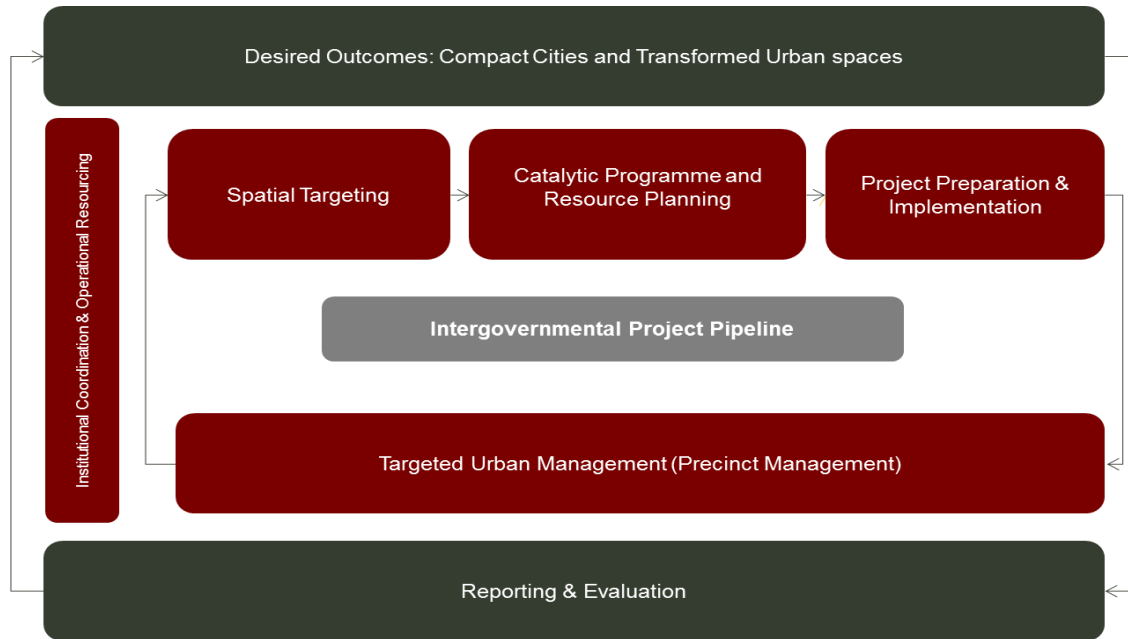


Figure 5: Built Environment Value Chain

The focus for the BEPP of the 2018/19 Medium Term Revenue and Expenditure Framework (MTREF) is to strengthen the overall application of the Built Environment Value Chain (BEVC) through:

- a. Clarifying development objectives, strategies and targets relative to agreed productivity, inclusion and sustainability outcomes.
- b. Consolidating spatial planning, project preparation and prioritisation via transit-oriented development plans and programmes in prioritised integration zones.
- c. Establishing an actionable intergovernmental project pipeline of catalytic projects via a portfolio management and project preparation tools.
- d. Clarifying long term financing policies and strategies for sustainable capital financing of the intergovernmental project pipeline.
- e. The content of each section is presented to address concerns and to provide particular information requested by National Treasury.

A3.1 Institutionalisation of the BEPP Method



Figure 6: Planning, budgeting and implementation process

Figure 6 above illustrates the manner at which the city links planning and budgeting to achieve desired outcomes. The city begins with the planning phase where all role players in the project including implementing agencies come together to formulate sound programme implementation plans which covers all the gaps that might be experienced during the rolling out of plans. Gaps identification process is done through in depth analysis of challenges of similar projects which have been rolled out in the past. The planning process is followed by the facilitation to ensure that all the implementing agencies carry out the implementation as envisaged in the planning process. The last step to this process is urban management which basically refers to the long term management and running of facilities implemented as a result of the planning process. It is critical to have a direct link between planning, budgeting and outcomes if the city’s long term objectives are to be realised.

Planning is implemented through the capital budgeting process through its prioritisation of projects linked to the spatial plans. All the plans (including financial plans) are guided by the City’s strategic vision contained in the SDF. The implementation of plans is facilitated by the development planning department.

A3.2 BEPP Process

This phase entails the approval of the 2018/19 BEPP, IDP Review, the Budget, Municipal Entities Business Plans, the Institutional Service Delivery Budget Implementation Plan (SDBIP) and Tariffs by Mayoral Committee and Council. COJ’s BEPP approval process is aligned to City’s Budgeting process to ensure the alignment with the Budget, IDP and MSDF.

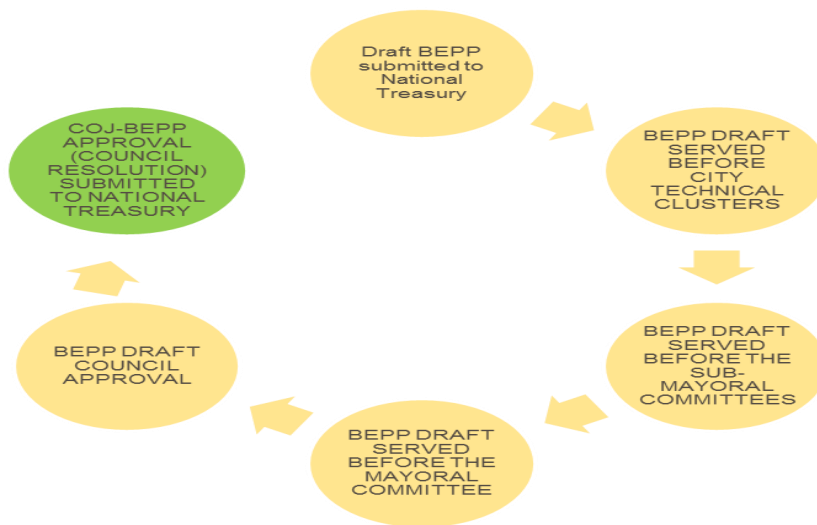


Figure 7: CoJ BEPP approval process

A3.3 Summary of the 2018/19 City of Johannesburg BEPP process¹

The table 5 below provides the timeframes for the key milestones and process within the work-streams outlined above.

Key milestones and Processes	Timeframes
Human Settlement Intergovernmental and Budgeting (National Treasury Workshop)	23-25 August 2018
National Treasury joint session on Built Environment Grants Frameworks between national sector departments and Metros	Mid-September 2018
National Treasury Planning Alignment Task facilitated planning meetings between sector departments/SOEs/Provincial Governments and Metros	September 2018
National Treasury PTNG Hearings	September-October 2018
Review of SDF guidelines, production of Technical notes and knowledge products relating to BEPP and Planning Reforms	September-October 2018
Submission of Process Plan for formulation of BEPP 2018/19 MTREF	2 October 2018
CoJ workshop with CSP coordinator (National Treasury) on the tracking of catalytic programmes and projects	October 2018
Medium Term Budget Policy Statement	25 October 2018
Preliminary allocation letters issued to Departments by National government	27 October 2018
Budget Lekgotla I	7-9 November 2018
Technical Budget Steering Committee (TBSC Hearings: IDP, Budget, Tariff, SDBIP and BEPP)	27-28 November 2018

¹ The dates are subjected to slight alterations.

Final allocation letters issued to Departments by National government	
Budget Steering Committee (<i>BSC Hearings: IDP, Budget, Tariff, SDBIP and BEPP</i>)	17-18 January 2019
Mid-year budget review	01-02 February 2019
CoJ Mid-year Review	26 January 2019
Budget Lekgotla II	13-15 February 2019
Mayoral Committee (Table IDP, Budget, Tarrifs, SDBIP and BEPP)	8 March 2019
Council (Table IDP, Budget, Tarrifs, SDBIP and BEPP)	20 March 2019
Draft BEPP submission	31 March 2019
Budget Benchmarking Meeting	17-18 April 2019
Incorporation of benchmarking comments/ Draft BEPP comments	April 2019
Draft BEPP presented to CoJ Technical Cluster	9 April 2019
Governance Sub-Mayoral Committee: draft BEPP, final draft Budget, IDP and Tariffs	23 April 2019
Human and Social Development Sub-Mayoral Committee: draft BEPP	23 April 2019
Sustainable Services Sub-Mayoral Committee: draft BEPP	24 April 2019
Economic Growth Sub-Mayoral Committee: draft BEPP	24 April 2019
Mayoral Committee (Final IDP, Budget, Tarrifs, SDBIP and BEPP)	May 2019
Council(Final IDP, Budget, SDBIP and BEPP)	May 2019
Council approved BEPP	31 May 2019
Annual BEPP Evaluation Workshop	June 2019
2018/19 BEPP Evaluation Report finalised	July 2019

Table 5: Timeframes for the key milestones and process within the work-streams

SECTION B: SPATIAL PLANNING AND TARGETING

B1. SPATIAL DEVELOPMENT FRAMEWORK 2040

The Johannesburg Spatial Development Framework (SDF) 2040 is a metro-wide spatial policy document that identifies main challenges and opportunities in the city, sets a spatial vision, and outlines strategies to achieve that vision. The framework was approved by Council in June 2016 after extensive public participation and through collaboration between the City of Johannesburg, UN Habitat, The Urban Morphology and Complex Systems Institute, Iyer Urban Design and the French Development Agency. The SDF is described by the Municipal Systems Act (MSA) (Act 32 of 2000) as a component of Integrated Development Planning for municipalities. More recently, it has been mandated by the Spatial Planning and Land Use Management Act (SPLUMA) (Act 16 of 2013). The SDF is influenced by the following:

Plans and strategies informing the SDF

- The Growth Management Strategy (GMS), which determines where, and under what conditions, growth can be accommodated, in order to achieve the desired urban form presented in the SDF.
- The Sustainable Human Settlement Urbanisation Plan (SHSUP),
- The Economic Development Strategy 2015.
- The Regional Spatial Development Frameworks (RSDFs) provide an area-specific interpretation of the SDF and GMS for each of the 7 Administrative Regions. The Department of Development Planning refers to these policies to assess development applications received by the City. This provides guidance to achieve the desired urban form for the City.
- The Capital Investment Framework (CIF), through the application of the strategies and guidelines of the SDF, is the component of the IDP by which the City identifies and prioritises capital projects from which the medium-term capital budget for the City is finalised.
- Precinct Plans and Urban Development Frameworks (UDFs) provide detailed design and infrastructure requirements and associated policy for localised areas and defined sections of the City (respectively). The Strategic Area Frameworks (SAFs) for the Transit Orientated Development Corridors (ToD's) formerly known as Corridors of Freedom fall within this category of plan; and

- The Strategic Integrated Transport Plan Framework and the Integrated Transport Network Plan.

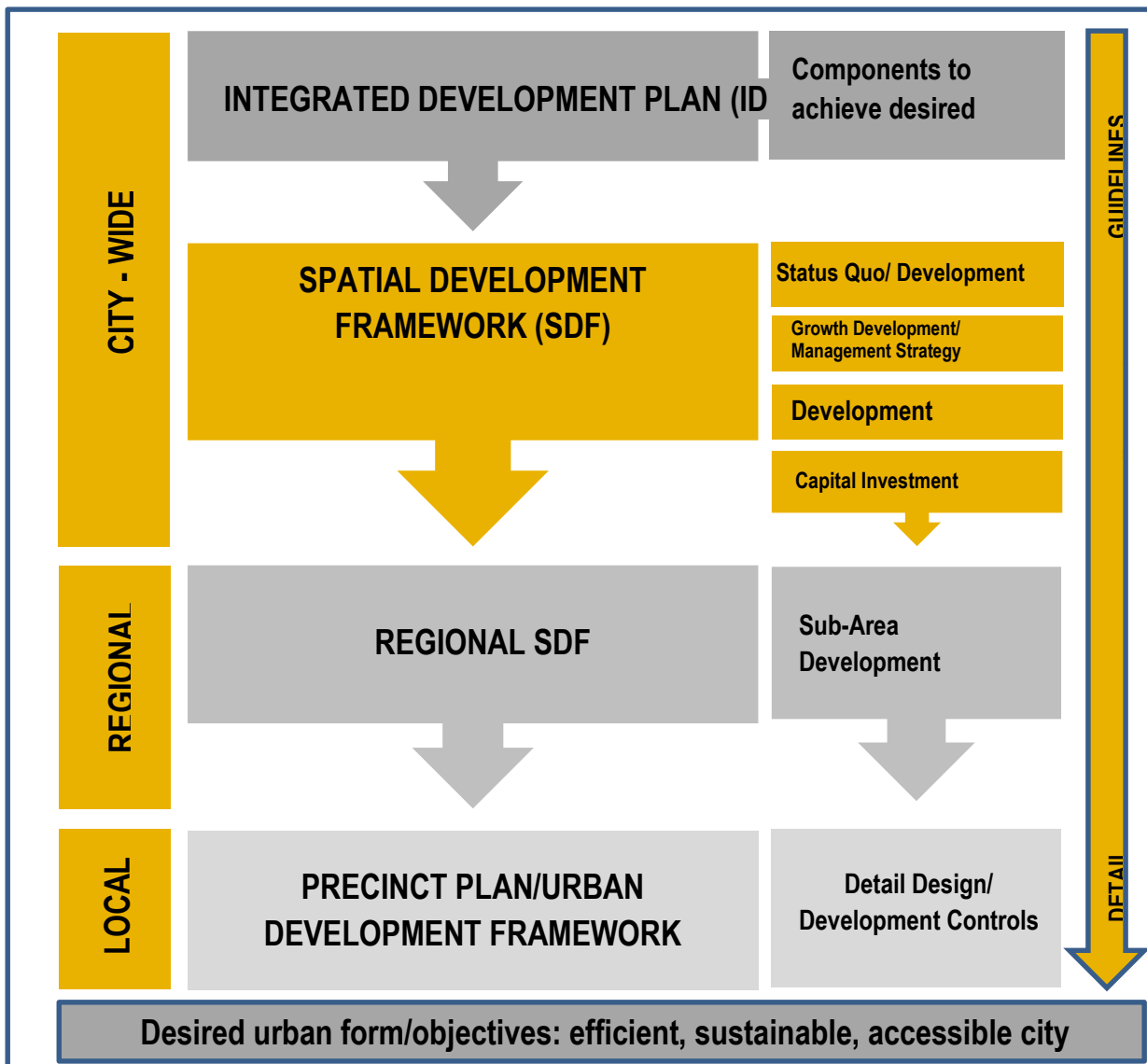


Figure 8: Spatial Policy in relation to the IDP

Transformation Agenda: towards a spatial just city

The Johannesburg SDF 2040 defines the priority transformation areas to be used in the City's capital investment prioritisation model (Johannesburg Strategic Infrastructure Platform – JSIP). This ensures that infrastructure investment is directed to priority areas as defined in the SDF.

The core objective of the SDF 2040 is to 'create a spatially just city'. The SDF 2040 is premised on the notion of spatial transformation, defined through the principles of equity, justice, resilience, sustainability and urban efficiency which the SDF seeks to translate into a development policy.

The Johannesburg SDF 2040 is not a static master plan; it is rather a dynamic model of strategic planning that will be cyclically reviewed, adjusting the focus and direction based on city transformation that takes place on the ground.

Spatial vision: A compact polycentric city

The vision is based on a modelling exercise testing three development scenarios, each hypothesising the growth of Johannesburg from 4.3 million to 7 million people by 2040. The first model describes a scenario with dispersed, sprawled growth. The second describes a 'linear development' scenario where future development occurs along an expansive public transport network (corridor development) linking all marginalised areas of the city, through vast development corridors to the inner city. The third scenario is 'a compact polycentric model' which concentrates growth in a compact urban core and around priority transformation areas and key urban and transit oriented development nodes. The compact polycentric city model performed significantly better than the other two in terms of economic, environmental and social indicators.

Therefore, the spatial vision of the SDF 2040 is a compact polycentric city. Here the Inner City would form the strong urban core linked by efficient public transport to dense, mixed use (residential and commercial), sub-centres, situated within a protected and integrated natural environment.

The spatial transformation vision of the SDF 2040 seeks to create a spatially just city. The plan is premised on the principals of equity, justice, resilience, sustainability and urban efficiency which it seeks to translate into a development policy. A compact polycentric City encompasses the above principals. It seeks to bring jobs to residential areas and housing opportunities to job centres. It will create complete, walkable nodes where people can live, work and play that are efficiently connected by public transport. It will bridge spatial and social barriers and build a framework for a spatial just city. To facilitate the spatial transformation needed in the city, the SDF 2040 endorses the following intertwined concepts of the new image of Johannesburg:

- **Compact city** – combining density, diversity, proximity and accessibility, reducing distances, travel times and costs, bringing jobs and social amenities to single use, marginalised residential areas, reducing energy consumption and infrastructure costs.
- **Inclusive city** – ensuring balanced service provision (hard and soft) and opportunities for all by diversifying land uses, promoting social mixing and bridging social, spatial and economic barriers.
- **Connected city** –enhancing public transit, walkability and ICT infrastructure at provincial and urban scales to re-connect the city, starting from 'Transit Oriented Developments' (previously known as Corridors of Freedom) to street and neighbourhood-level connectivity.
- **Resilient city** – building a metropolitan open space system as a protection buffer, preserving valuable green infrastructure and areas of high agricultural potential, promoting sustainable energy use, reinforcing the urban development boundary and protecting biodiversity resources.
- **Generative city** – focusing investment in transformation areas and nodes towards: achieving positive social, economic and environmental returns on investment; spurring

economic growth and job creation and enhancing public space and promoting sustainability (social, environmental and economic).

The Spatial Framework

The spatial framework for Johannesburg 2040 builds on the spatial vision for the future city as a Compact Polycentric City. The framework entails a series of strategies and interventions in focus areas and at a city-wide scale. The spatial framework envisions Johannesburg as a hierarchy of dense mixed use transformation areas, corridors and nodes, that integrate the natural ecological system as a structuring layer, and that are connected by an efficient public transit system.

In realising a compact polycentric city form and ensuring transformation, the SDF identifies the following layers of focus for which it outlines development strategies:

- **An integrated natural structure**

The natural environment is an essential element in the structuring of the future city. It is the environment around which all planning, development and land use decisions should be made. The natural structure should be seen as an irreplaceable city asset that provides valuable ecosystem services and not merely as unused land available for development. Protecting these areas is not done for the sake of conservation alone, but to make surrounding developed parts of the city more sustainable, liveable and valuable (socially, financially and in terms of green infrastructure). As such, the protection of the City's natural assets must be a starting point for all development. See approved SDF 2040

- **Transformation Zone**

The Transformation Zone includes areas where investment is prioritised for future urban intensification and growth, as they have the capacity to trigger positive effects on a metropolitan scale. The Transformation Zone also indicates areas where the development of detailed spatial plans, where they do not exist already, will be prioritised.

- **Strengthening the metropolitan core**

Through Inner City Transformation Roadmap and Inner City Housing Implementation Plan, building on the opportunities of the inner city as a dense economic core of the city and tackling issues of fragmented developments, crime, 'bad buildings' and lack of affordable housing. The strategy suggests creating compact precincts of inclusive residential densification structured around public transit and economic activity. An investment programme in social facilities and engineering infrastructure to support development is critical. It further supports economic growth in the Inner City through various measures. The strategy proposes consolidating the Inner City through a public space/street network and expanding it towards the southern industrial area and the Turffontein.

- **Transit Orientated Development Corridors (The Corridors of Freedom)**

Consolidating growth and development opportunities around existing and future public transport nodes, starting from the Transit Oriented Development linking Soweto, through the Inner City, to Sandton (along Empire-Perth and Louis Botha Avenues) and linking Turffontein into the Inner City. This will also include a focus on Transit Oriented Development nodes at Rea Vaya, PRASA and Gauteng stations.

- **Unlocking Soweto as a True City District**

Diversifying and intensifying Soweto to address its largely residential nature by developing mixed land uses (particularly economically productive, job creating ones) and social services, making use of its good street pattern and public transport network. The strategy is to develop Soweto into a series of self-sufficient mixed-use nodes (starting around public transit stations and nodes) as drivers of economic growth and job creation, allowing Soweto to function as a liveable city district in its own right with access to jobs and the full array of urban amenities.

- **Developing a Randburg-OR Tambo Development Corridor**

Establishing a strategic connection between the northern parts of the city (Randburg, Sandton and Alexandra) and Ekurhuleni (OR Tambo Airport and its surrounding Aerotropolis) incorporating the Modderfontein, Frankenwald and surrounding areas; develop Alexandra into an intensive, liveable mixed-use area well-connected into the surrounding urban opportunities: creating a regional logic for the development of strategic land parcels using current development dynamics to drive growth and reduce expansion pressure on the periphery.

- **Unlocking the Mining Belt**

This historical spatial discontinuity presents significant opportunities for development and public open space that could integrate the north with the south of Johannesburg and improve cross-border linkages with Ekurhuleni and the West Rand. By identifying strategic interventions along the belt – road linkages, mixed use redevelopments, rehabilitation of degraded and damaged land – this feature could become one of inclusion.

- **Consolidation Zone**

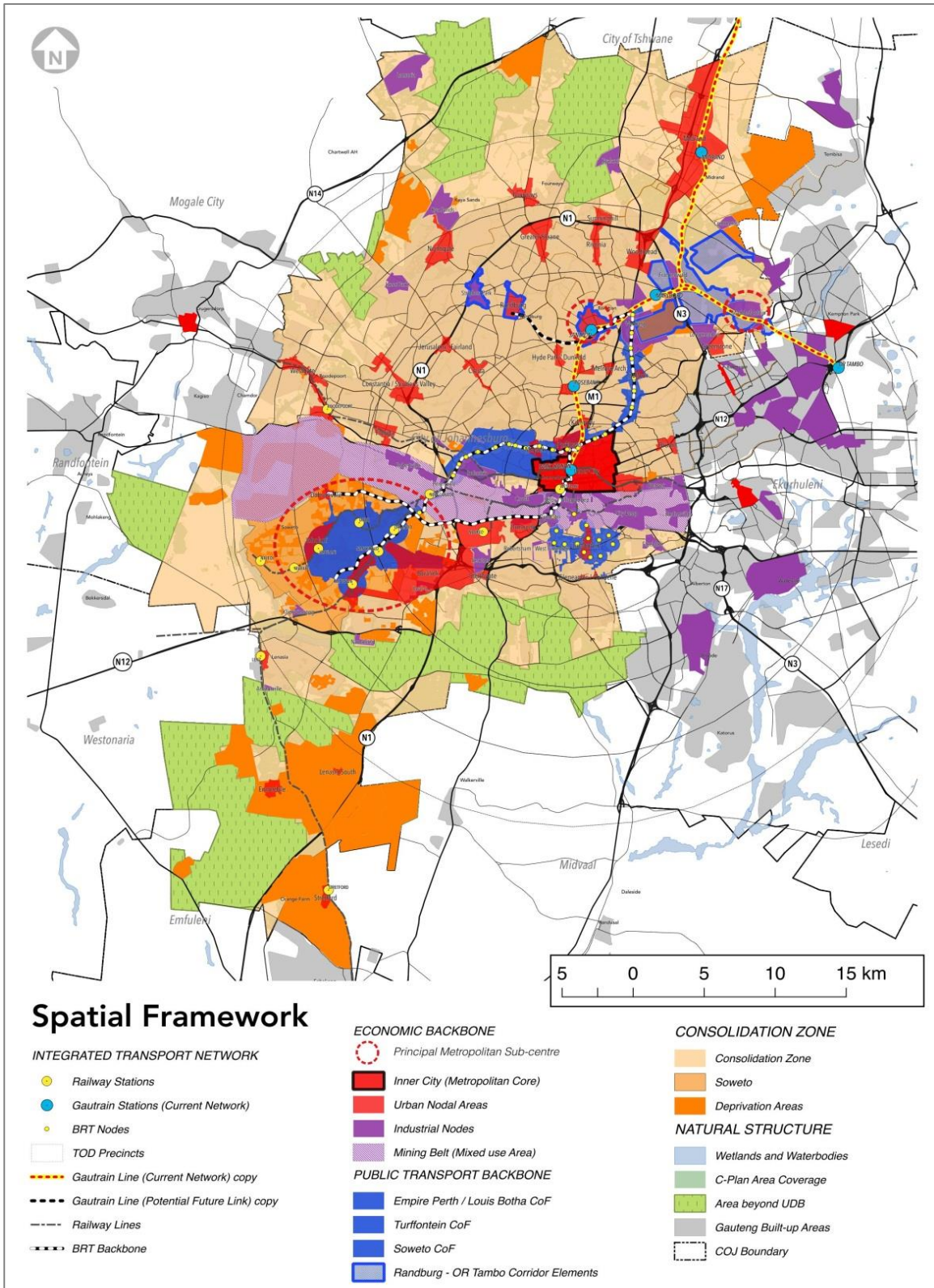
This area (neither within the Transformation Zone, nor outside the urban development boundary) is viewed as a focus of urban consolidation, infrastructure maintenance, controlled growth, urban management addressing backlogs (in social and hard infrastructure) and structural positioning for medium to longer term growth. The policy intent in these areas would be to ensure existing and future development proposals are aligned as far as possible with the broader intent of the SDF, specifically in terms of consolidating and diversifying development around existing activity nodes and public transport infrastructure. In this broad area, new development that does not require bulk infrastructure upgrades should be supported, however underserved parts of the city (informal settlements and marginalised areas) should receive investment.

- **The Spatial Economy**

The previous SDF defined a number of metropolitan, regional, district and neighbourhood nodes as catalytic areas for growth in the city. Added to these are TOD nodes. These will be supported as focal points for growth in the city through extended development rights (in terms of density and land use mix) and through significant infrastructure investment by the city. Nodes should develop into compact, walkable, liveable, mixed use and mixed income areas. Industrial nodes will be a focus of future job creation, as well as diversification.

- **Reinforcing the Urban Development Boundary and defining development zones**

Re-emphasising the Urban Development Boundary (UDB) and limiting new development outside of it and protecting the natural environment. Emphasis is on ecological resource protection and management, food production, low intensity social services and amenities, agriculture related investment, leisure and tourism and green energy initiatives. In addition to the UDB, two other development zones are introduced, the priority and consolidation zones, discussed above.



Map 2: Spatial Framework

Implementing the SDF: Capital Investment and Growth Strategy

The spatial framework above, along with the spatial policies and design guidelines, will be implemented through a targeted capital investment and growth strategy. See the approved SDF 2040

Capital Investment Focus

The main purpose of the SDF is to provide clear direction for future growth through development policies and strategies. The implementation of the SDF in order to achieve the desired outcome takes place at mainly two levels:

Firstly, the implementation of state and private sector development initiatives is overseen by the city as part of its regulatory functions for approval of development. The implementation and application of the Spatial Framework intent, policy guidelines and requirements and various legal and policy mechanisms directs the development initiatives to ensure compliance and achievement of overall goals and outcomes of the SDF.

Secondly, the implementation of the SDF relies on infrastructure capital investment that supports the growth directions and ambitions for future development. The SDF guides both private and public investment in bulk infrastructure and services. Public sector investment in infrastructure and services represents the most significant portion of capital investment in the city and the link of the spatial framework with the capital investment programme is essential for successful implementation.

This aspect of integrated spatial and investment planning is well established in Johannesburg. A well-established institutional capital budget process that ensures alignment to the strategic growth objectives and spatial plans has been established within the City administration. The process also ensures compliance with the requirements and regulations of the MFMA and the guidelines of National Treasury. The process consists of a number of extensive consultations between all departments and entities responsible for capital investment and the Planning Department, who is the custodian of the SDF and related development strategies and also coordinate and direct the capital planning process and formulation of the capital budget.

Capital Investment Framework

There are broadly three main categories for capital investment that contribute to the overall strategy and the Capital Investment Framework.

a. Engineering Infrastructure: Optimisation Strategy

The Consolidated Infrastructure Plan (CIP) aim to assist in forecasting future demand for engineering infrastructure and to integrate planning, implementation and management of infrastructure and related programmes, to ensure sustainable and cost-effective infrastructure delivery and operational practices. The CIP's optimization strategy was developed to determine savings in engineering infrastructure investments by minimising the overlap between bulk refurbishment projects and bulk capital projects within the same asset class. In some instances, maintenance work is required on a specific piece of infrastructure to keep it functional and an upgrade is planned shortly after the maintenance work, which would result in the refurbished infrastructure's being replaced. The strategy is, therefore, based on the principle that: it is valuable to align refurbishment with upgrades to maximise the return on investment by saving on the cost of refurbishment. The value from the

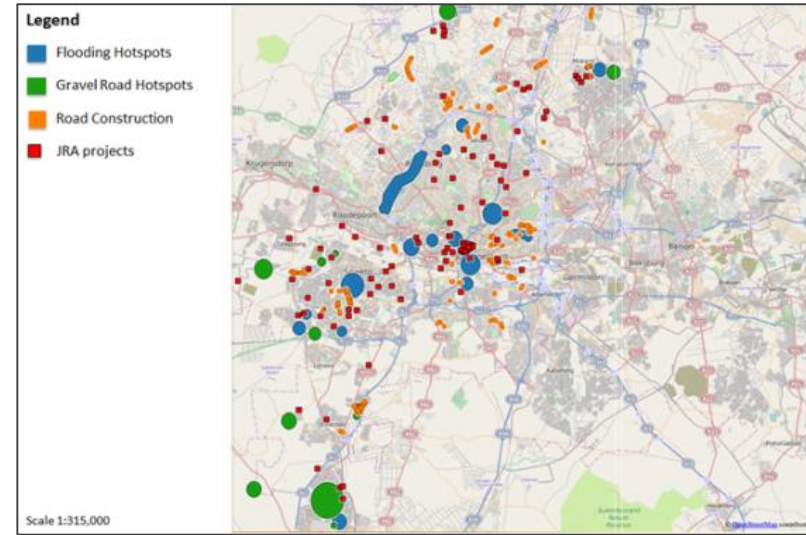
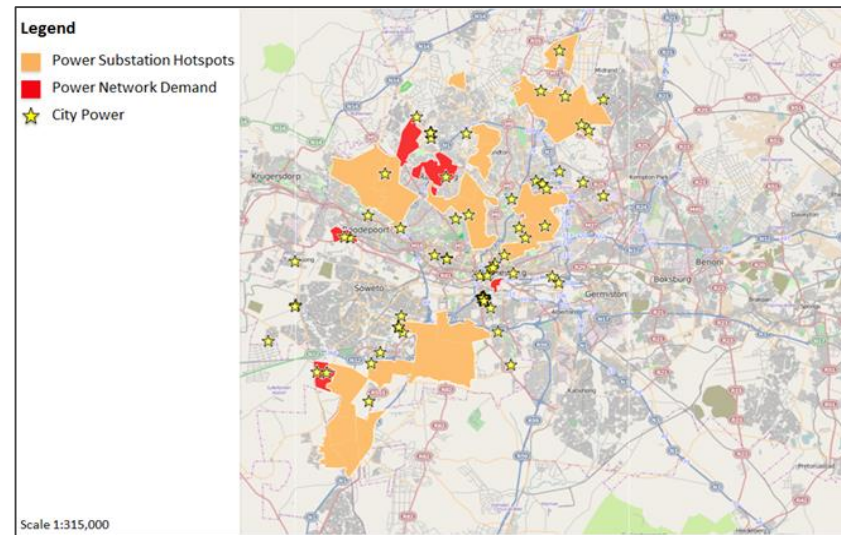
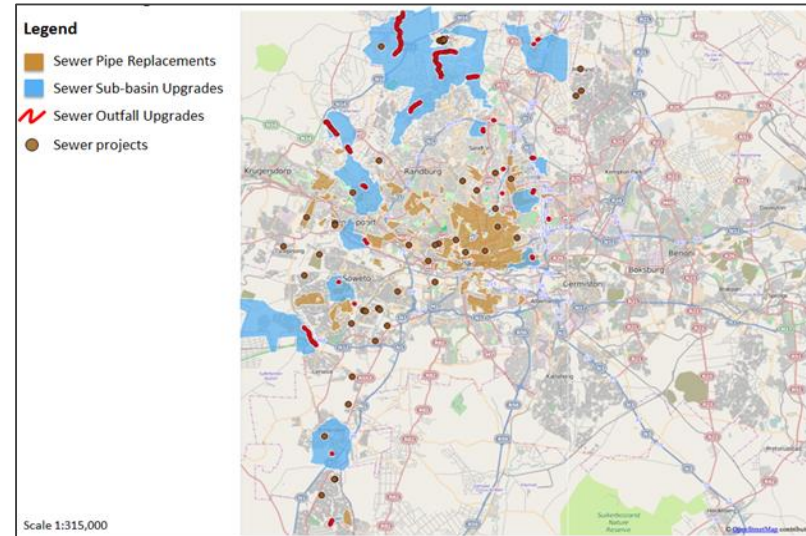
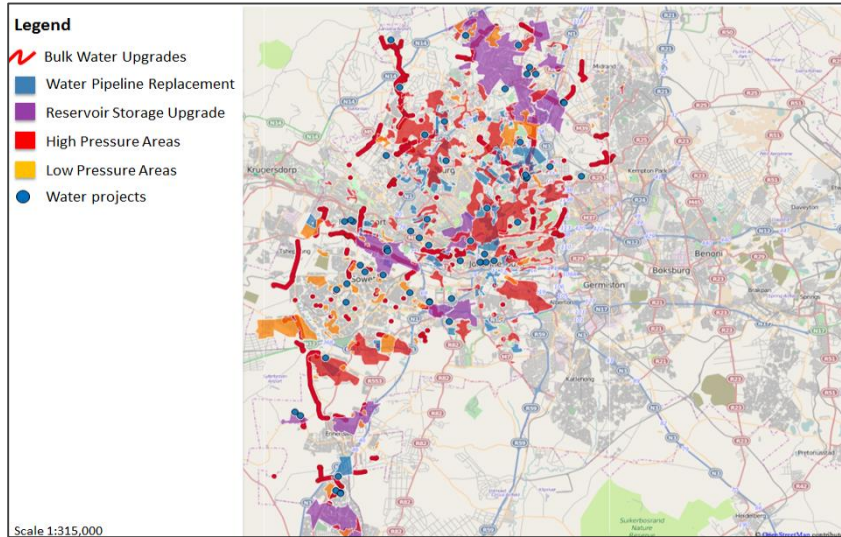
exercise is a direct saving in refurbishment cost which would be wasted otherwise. The CIP phase 1 investigated the bulk infrastructure components and was able to make a 30% saving on the refurbishment budget. This provides for a significant portion of the budget to be re-invested. The following table presents the potential cost saving for the relevant sectors. The percentage saving per sector indicates the saving compared to the total 20-year refurbishment budget. The overall saving compared to the sectors combined budget is also indicated.

Sector	Savings amount	Percentage saving
Water	R60 655 766	36%
Sanitation	R52 535 400	32%
Electricity	R52 535 400	25%
Total	R165 726 566	30%

Table 6: Investment optimisation strategy savings amount per sector

b. Financial information on the Infrastructure Investment

Well-functioning infrastructure has always been very important to both the local economy and the society. Both components require infrastructure to enable people to work and live in a sustainable and functional environment. This information will be discussed further in section E



Map 3: Infrastructure Hotspots (Water, Sewer, Power, Roads)

B1.1 Urban Network and IZ planning and Prioritisation

Spatial Targeting within the Urban Network Strategy aims to bring together **three key elements** into an integrated framework. See Figure 9 below:

1. **Economic nodes / Areas of Employment** – shown in blue and red
2. **Marginalised Residential Areas and Informal Settlements** - shown in orange
3. **Strategic Public Transport Corridor** linking the above two elements.

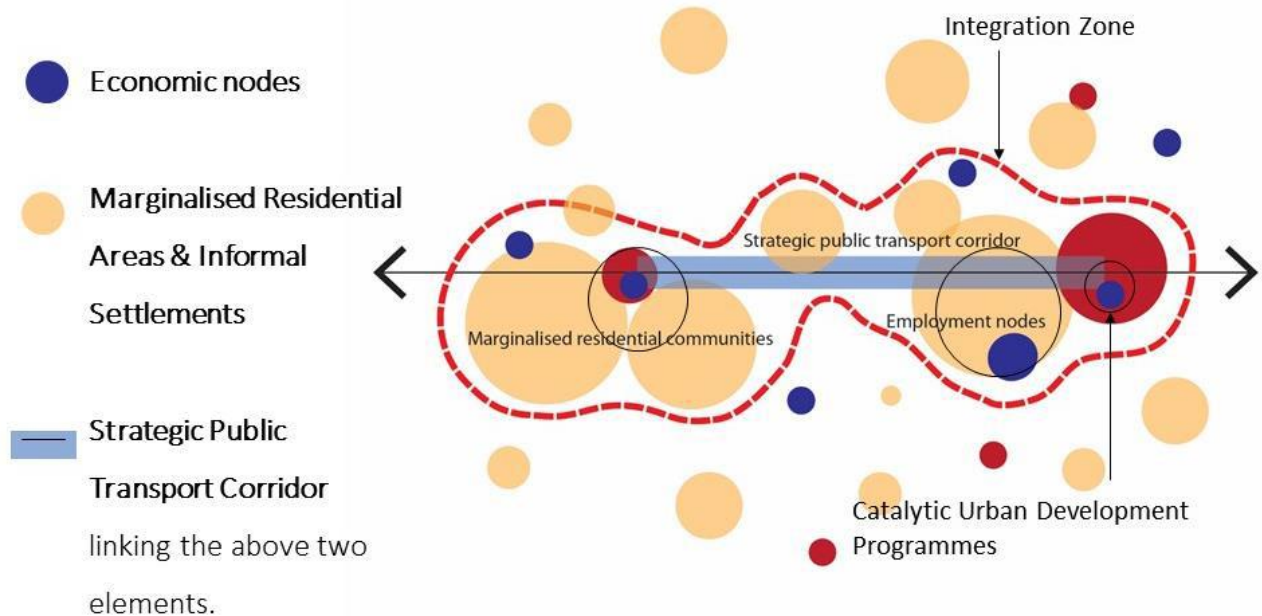


Figure 9: The Urban Network Plan, and specifically the identification of prioritised spatial targeting areas, provides a mechanism for integrated planning and in particular, the spatial alignment of investments in public transport and housing’ (NT Guidance Note: 2017). This concept to a certain extent aligns with the vision of the City which model as the Compact polycentric City (see page 35)

B1.1 Central Business District/ inner City

The CBD remains an important area of economic, residential and social interaction catering for a diverse range of incomes, cultures and races – incorporating both the formal and the informal sector in complex relationships. The key policy guiding the City’s engagement with the CBD is the Inner City Road Map. The Inner City has had a relatively short but turbulent history. It has witnessed gold rushes, building booms, decline and capital flight, and large-scale regeneration. Today the inner city is a crucial hub within a sprawling metropolis of multiple centres. The role of the Inner City remains the key metropolitan node, as confirmed in the CoJ SDF 2040.

The inner city is unique. It is already a place of opportunity for the poor and the wealthy for income and housing, and is to a large extent a place of inclusivity, as an example to other cities in South Africa. It attracts great investment from both private and public sectors, and is

a retail and transportation hub serving a market that stretches across the sub-continent. This role as a place of opportunity for informal traders to Johannesburg Stock Exchange listed companies is critical to the growth of the South African economy. This inter-relationship between small enterprises and large must be protected to ensure a continued vibrant economy.

Despite, the positive advances in many precincts, the issues of crime, grime and urban management still need urgent attention. The prevalence of bad buildings, where management and maintenance of buildings is severely lacking, remains one of the root causes of these issues. These bad buildings are one of the only places in the inner city that poorer residents can find afford to live, but in inadequate housing conditions. Aside from the lack of decent inclusionary housing, other major challenges include unsustainable and underperforming urban services like electricity and sewerage, and an undersupply of public space, education and health facilities. In dealing with these issues the City of Johannesburg has introduced ‘*Buya mtheto*’ programme as well as the ‘*A re sebetseng*’.

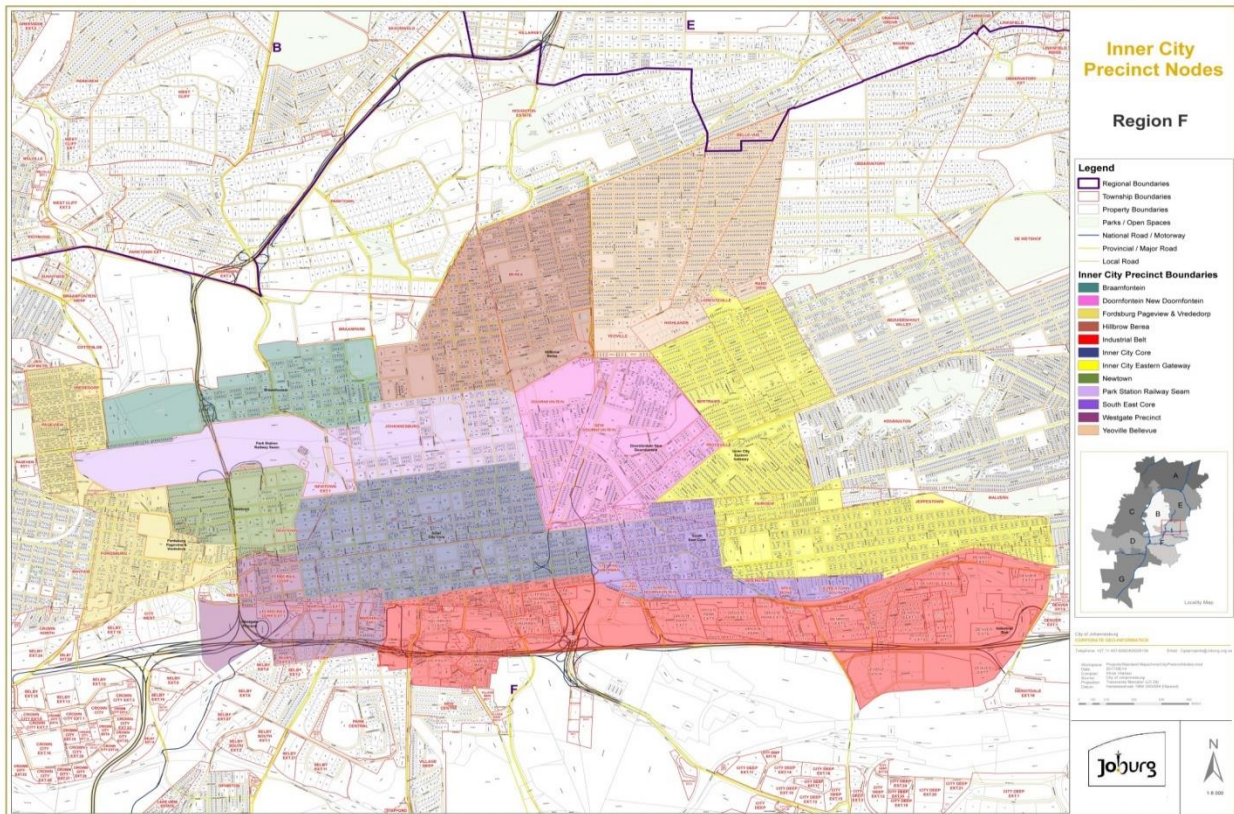
The Inner City Transformation Roadmap is the statement of intent for Inner City and the approved policy of the City to guide the regeneration of the Inner City. It puts forward a clear vision, aligned with the City’s Growth and Development Strategy (GDS). Several long-term outcomes make up the vision for the inner city, represented as five ‘pillars’ (see section 4, below). Each pillar has clear outcomes and outputs, each of which has a lead City department or unit. The Roadmap Implementation Plan is the extensive list of these outputs, and is the working document for initiating and tracking the outputs set out by the Roadmap. The Implementation Plan consolidates capital interventions, and strategies for urban management and municipal services, focused in priority areas.

Vision for the inner city
A place of opportunity: a well-governed, transformed, safe, clean and sustainable inner city of Johannesburg, which offers high quality, sustainable services; supports vibrant economic activity; and provides a welcoming place for all residents, migrants, commuters, workers, traders, investors and tourists.

The Inner City Roadmap Office oversees implementation, and is based in the Office of the City Manager.

- **An Area-Based, Partnership Approach**

The City and key private stakeholders have planned, upgraded and managed several precincts in the inner city through an area-based approach. This focused attention has been highly successful. Inner City is officially defined by the Urban Development Zone (UDZ). Property developers receive tax relief if building within this boundary.



Map 4: Map showing the Urban Development Zone, the official boundary of the inner city and the twelve precincts of the Inner City.

An analysis has been conducted on all precincts in the Inner City, as illustrated in the table below. The table below (Table 7: Current priority precincts, the challenges and priority spatial interventions) outlines key interventions required in each precinct of the Inner City over the medium term. There are three priority precinct that have been put forward in order to ensure a co-ordinated implementation across departments to maximise outcomes, namely; The Inner City Eastern Gateway, which includes Bertrams, Jeppestown, Troyeville, Greater Ellis Park and New Doornfontein; Park Station Railway Seam; and The Westgate Precinct. The rationales for the selection of three precincts are as follows:

- Planning and Intelligence in place;
- Ripe for re-development and investment;
- High impact – favourable yields; and
- Market is ready.

This does not mean that other precincts will not receive investment, as is currently taking place and continues to take place, but rather catalytic and co-ordinated interventions will take place in these three priority precincts as a priority. Assessment of the priority precincts will take place on an annual basis.

Priority	Inner City Precincts	Location Potential	Current Performance	Appropriate Area-Based Strategy	Stage of Intervention
1	Inner City Eastern Gateway	High	Low	<ul style="list-style-type: none"> Regeneration Strategy: <i>Aim to stimulate a market response in the Property Sector</i> <i>Employ supportive planning, institutional and fiscal tools to create certainty and market confidence</i> <i>Play a Facilitative Role for investors</i> <i>Match policy implementation timing to market Business Cycles</i> <i>Establish a project-delivery body empowered and resourced to move fast</i> 	<input type="checkbox"/> Planning – completed <input type="checkbox"/> Capital Investment <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management
2	Park Station-Railway Seam	High	High	<ul style="list-style-type: none"> Growth Management Strategy: <i>Aim to mitigate the impact of crowding due to favourable location</i> <i>Manage the type, rate, extent and quality of urban growth</i> <i>Address infrastructure bottlenecks</i> <i>Improve Public Transport Level of Service and Pricing</i> <i>Use Public Land to address gaps and ease congestion</i> <i>Stricter by-law enforcement and planning control</i> 	<input type="checkbox"/> Planning - Review previous planning done to inform further Capital Investment <input type="checkbox"/> Capital Investment <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management
2	Inner City South West	High	Low	<ul style="list-style-type: none"> Regeneration Strategy: <i>Aim to stimulate a market response in the Property Sector</i> <i>Employ supportive planning, institutional and fiscal tools to create certainty and market confidence</i> <i>Play a Facilitative Role for investors</i> <i>Match policy implementation timing to market</i> 	<input type="checkbox"/> Planning Continue planning... <input type="checkbox"/> Capital Investment <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management

Priority	Inner City Precincts	Location Potential	Current Performance	Appropriate Area-Based Strategy	Stage of Intervention
3	Fordsburg, Vrededorp & Pageview	High	Low	<ul style="list-style-type: none"> Regeneration Strategy - <i>Aim to stimulate a market response in the Property Sector</i> <i>Employ supportive planning, institutional and fiscal tools to create certainty and market confidence</i> <i>Play a Facilitative Role for investors</i> <i>Match policy implementation timing to market Business Cycles</i> <i>Establish a project-delivery body empowered and resourced to move fast</i> 	<input type="checkbox"/> Planning – Completed <input type="checkbox"/> Capital Investment <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management
3	Inner City Central Core	High	High	<ul style="list-style-type: none"> Growth Management Strategy <i>Aim to mitigate the impact of crowding due to favourable location</i> <i>Manage the type, rate, extent and quality of urban growth</i> <i>Address infrastructure bottlenecks</i> <i>Improve Public Transport Level of Service and Pricing</i> 	<input type="checkbox"/> Planning – Ongoing <input type="checkbox"/> Capital Investment – Ongoing <input type="checkbox"/> Development Facilitation - Active <input type="checkbox"/> Operational Urban Management
4	Braamfontein	High	High	<ul style="list-style-type: none"> <i>Use Public Land to address gaps and ease congestion</i> <i>Stricter by-law enforcement and planning control</i> 	<input type="checkbox"/> Planning – Ongoing <input type="checkbox"/> Capital Investment – Ongoing <input type="checkbox"/> Development Facilitation - Ongoing <input type="checkbox"/> Operational Urban Management
4	Hillbrow & Berea	High	High	<ul style="list-style-type: none"> Growth Management Strategy <i>Aim to mitigate the impact of crowding due to favourable location</i> <i>Manage the type, rate, extent and quality of urban growth</i> <i>Address infrastructure bottlenecks</i> <i>Improve Public Transport Level of Service and Pricing</i> 	<input type="checkbox"/> Planning - Review previous planning work done <input type="checkbox"/> Capital Investment - Review gaps <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management
4	Newtown	High	Medium	<ul style="list-style-type: none"> <i>Use Public Land to address gaps and ease congestion</i> <i>Stricter by-law enforcement and planning control</i> 	<input type="checkbox"/> Planning - Review previous planning work done <input type="checkbox"/> Capital Investment - Address Gaps esp. Newtown West <input type="checkbox"/> Development Facilitation –

Priority	Inner City Precincts	Location Potential	Current Performance	Appropriate Area-Based Strategy	Stage of Intervention
4	Industrial Belt	Low	Low	<ul style="list-style-type: none"> • Repositioning Strategy <i>Aimed at repositioning the Economic Role of the area</i> <i>Work collaboratively with local stakeholders</i> <i>Addressing regulatory and infrastructure barriers to econ repositioning</i> • Ensure Land Use Rights and Land Parcel sizes are appropriate for new econ role <i>City to take a leading role by injecting Public Investment to prompt the turnaround</i> <i>Addressing any prevailing blight through urban management is essential</i> 	<input type="checkbox"/> Planning - Start with Planning. <input type="checkbox"/> Capital Investment <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management
5	Yeoville & Bellevue	Medium	Low		<input type="checkbox"/> Planning - Review previous planning work done <input type="checkbox"/> Capital Investment - Review gaps <input type="checkbox"/> Development Facilitation <input type="checkbox"/> Operational Urban Management

Table 7: Current priority precincts, the challenges and priority spatial interventions

A key success factor in regeneration initiatives so far has been the development of partnerships for collective definition of the problems, and for the pooling of resources from the public and private sectors. The Inner City Roadmap has supported the establishment of the Johannesburg Inner City Partnership, which a broad representative group working with the City to together resolve Inner City challenges. The City is also using some of its capex funding to stimulate partnerships – an Inner City Partnership Fund, managed by the JDA, invites public partnerships with private sector and civic organisations to upgrade and manage local area interventions through the “Our City, our Block” programme. This approach is to be entrenched in the future. Nevertheless, the challenge is to balance these outcomes, while minimising trade-offs. There has been significant criticism of several developments for forcing out the poor directly with evictions, or indirectly through a hike in the cost of accommodation, services and retail opportunities. The City will strive to balance the outcomes found in the Clean and Safe Inner City pillar (such as addressing the issue of bad buildings) with the outcomes of the Inclusive Inner City pillar (such as facilitating the provision of appropriate affordable housing).

- **Budget**

The Inner City is the City’s high priority area and the MTEF prioritises budget allocation for regeneration of the Inner City. Budgets are prepared and confirmed on an annual basis, with approval from Council, however on a board level the Inner City will receive approximately R1.5 Billion in Capital Investment over the next three years from 2018/19- 2020/21.

- **Roadmap Pillars and Key Interventions**

The City’s interventions in the current term involve both capital projects and urban management strategies, working towards strengthening the five long-term outcomes or ‘pillars’ as set out in the Inner City Roadmap. These include:

1. Well-Governed Inner City
2. Clean and Safe Inner City
3. Sustainable Inner City
4. Productive Inner City
5. Inclusive Inner City

Interventions include large and small scale capital investments such as in the Johannesburg International Transport Interchange, further housing development of existing buildings through the Johannesburg Social Housing Company (JOSHCO) and public open space along the green link from End Street South to Pullinger Kop parks as well as re-development of Jeppe Park. While operational interventions include additional shifts for Pikitup staff to improve the cleanliness of the Inner City, interventions to improve public safety through further visible policing and CCTV systems and extended health care services at primary health care clinics. The Inner City Roadmap has some success in co-ordinating activities in the Inner City under these 5 pillars. To further these successes the Office of the City Manager put in place a more streamline institutional structure to ensure outcomes based approach to dealing with Inner City issues. This is illustrated in figure 10 below:

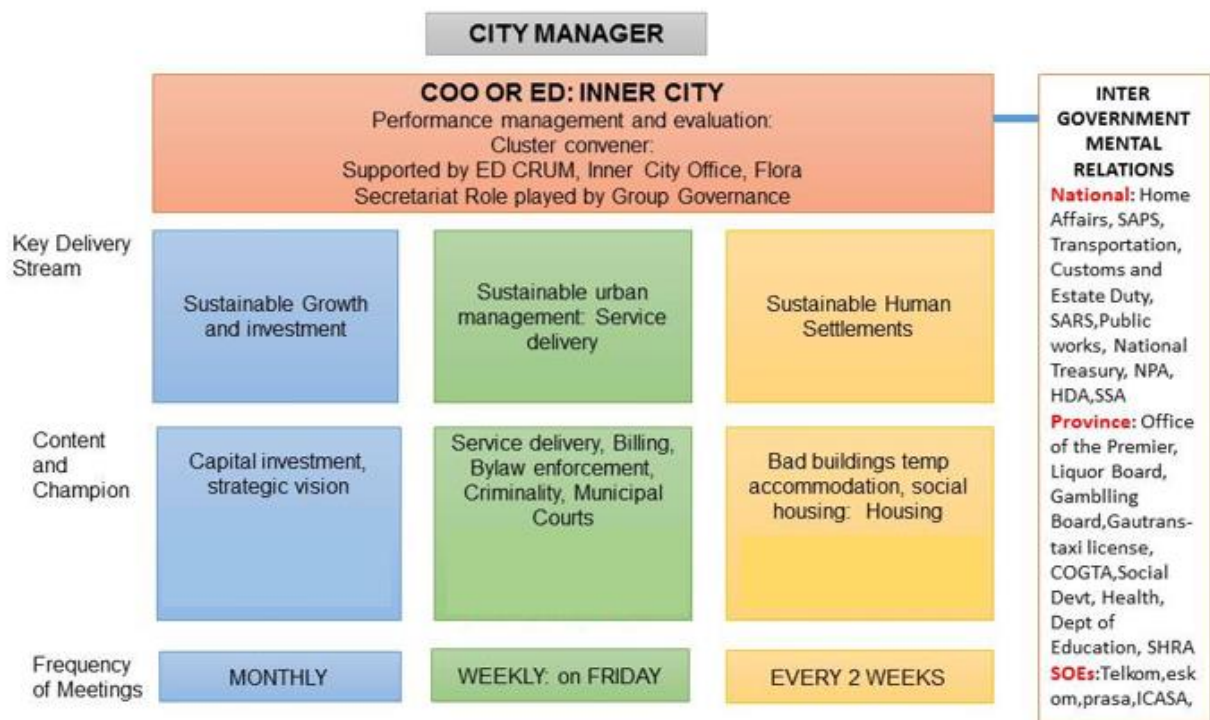


Figure 10: streamline institutional structure to ensure outcomes based approach to dealing with Inner City

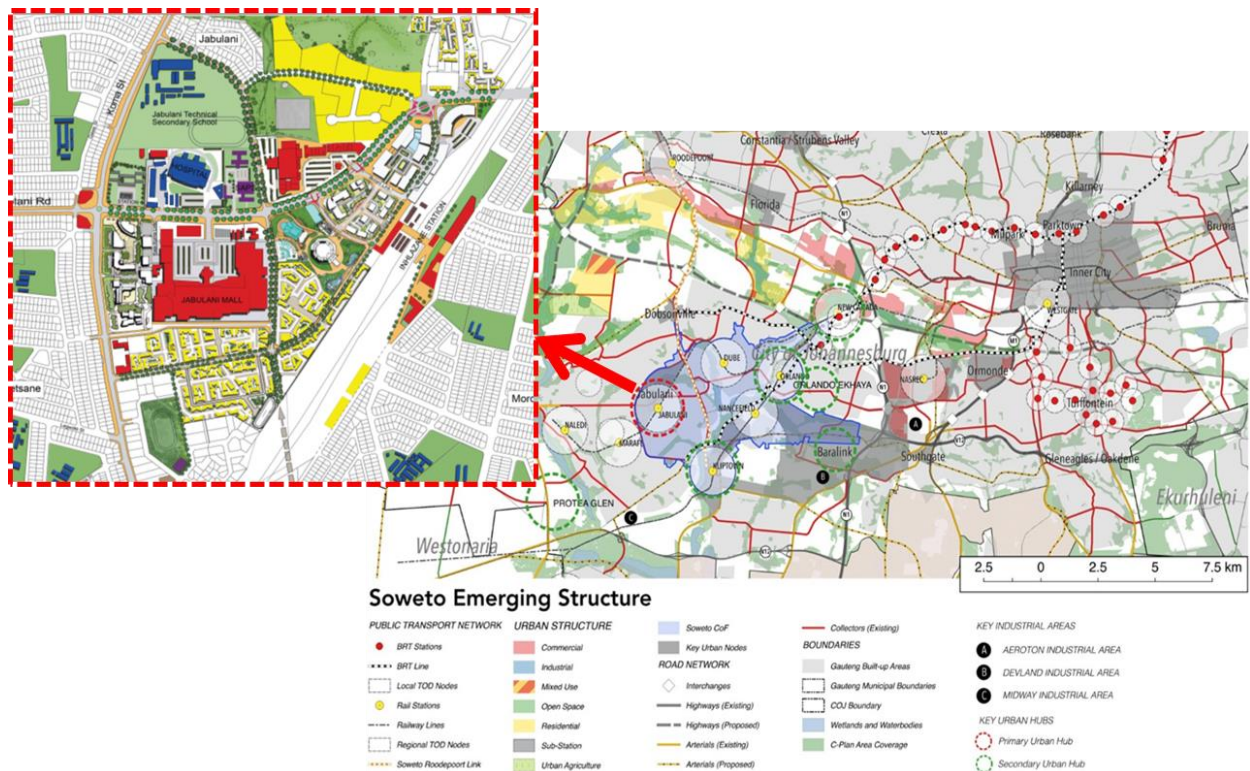
With the political will and the streamlining of institutional and reporting structures, bigger impacts on the improving the Inner City is expected. The continued transformation of the Johannesburg Inner City will not be possible without the collaboration and cooperation of key stakeholders, namely; residents, the private sector and civil society organisations. The City of Johannesburg looks forward to strengthening these partnerships going forward, to ensure the inner city reaches its full potential as a *place of opportunity*.

B1.2 Urban Hub

Unlocking Soweto as a True city District

Soweto is a densely populated area, housing more than a third of the city’s population with evidence of a growing middle class. The low density built form leaves spaces for densification strategies, especially around defined nodes, both mixed use and TOD. Therefore there is a need of creating Soweto into a compact principal Metropolitan sub-centre. A series of Soweto’s regional connections need to be strengthened in order to connect Soweto to the metropolitan core and other sub-centres. The connection of key nodes within Soweto such as Jabulani to Kliptown and Bara Central to Nancefield station is essential in strengthening the economy and connecting people and places. The aforementioned will transform Soweto into a liveable city district that is connected internally and externally. The intended outcome is to create a strong secondary economic centre (i.e urban hub) with strong links to the main economic city centre; but in itself a place where people and jobs are in close proximity.

Jabulani



Map 5: Jabulani Cultural Precinct in Soweto

The City’s plans for the precinct are defined in detail in the Jabulani Cultural Precinct: Urban Design Report and Urban Design Framework. The City’s objectives for the future development of Jabulani include a vibrant economic hub with a range of residential offerings, supported by unique safe public spaces and defined walkable connections to surrounding activities.

The **Priority intervention programmes** in Jabulani as defined in the Urban Design Framework are:

- Transportation - pedestrian movement; Inhlazane Train Station; taxis; bicycle lanes; links to the City's Rea Vaya network
- Open Space - Jabulani Amphitheatre Park; Water Tower Park; Jabulani Flats Park; pocket parks
- Retail and Commercial Opportunities – Formal and informal enterprise development
- Integration of institutional Uses within Jabulani

Through City's own budget and NDPG funding, Jabulani has been slowly transforming into a mixed-use environment (with high density residential developments, institutional land uses and retail/recreational offerings) with improved public and NMT transport connections. New connections have been established with adjoining areas, through new vehicular crossings of the railway line and inclusion into the Rea Vaya network.

The aforementioned connections will further enhance push and pull factors between Jabulani, surrounding areas and the greater City of Johannesburg. Sustainability is viewed in economic, social, environmental and physical terms, as it applies within the node and to the broader context of Jabulani. Reinforce the functional integration of major public transport points to the greater urban context as well as their effectiveness within the node.

Nancefield Transit Oriented Development

The objective of developing Nancefield station as a TOD is to realise a vibrant, economically viable urban environment; intensification of land use and residential densification; and attract private sector investment (*Map 4: Nancefield TOD Project Masterplan*).



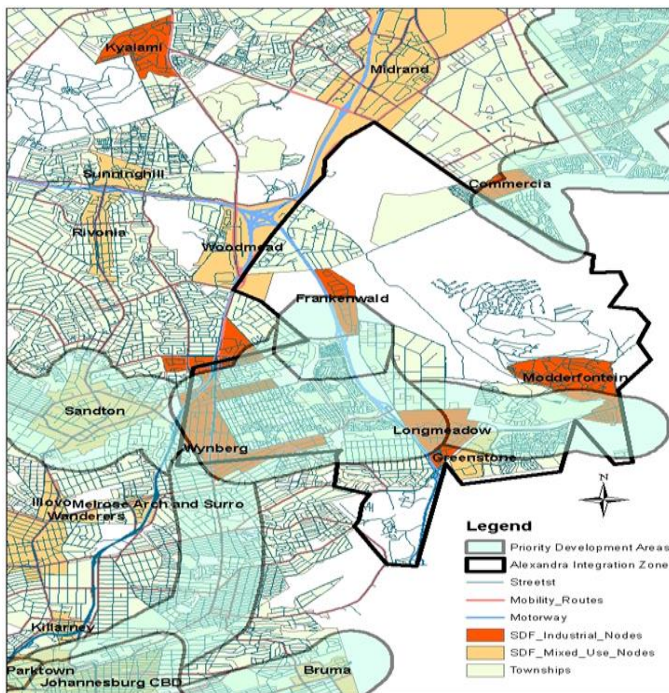
Map 6: Nancefield TOD Project Masterplan

Most of the infrastructure projects have been implemented over the last five to six years – bulk infrastructure to support medium to higher residential densities was constructed, including upgraded stormwater, water and electrical services. New walkable streets and

connections to adjacent areas were created; infrastructure upgraded include paving, safety fencing, lighting, traders’ stalls, landscaping and street furniture which has made the public environment safer for walking, trading and cycling. New social amenities (including a park and multi-purpose sports centre) were added and linked via the upgraded streets and walkways. The Provincial housing and Joshco Social Housing projects are at advanced stage.

Alexandra

Alexandra Hub includes: Alexandra, Marlboro, Far East Bank, Marlboro Station and Wynberg. It is proposed that this area be expanded to include the Farm Frankenwald, the Linbro Industrial Node, Linbro Park Agricultural Holdings, Westfield, Modderfontein Land Holdings, Buccleugh, Farm Rietfontein and Farm Waterfall holdings east of the N1 Highway (Map 5: *Alexandra Integration Hub*). The SDF review proposes the development of this area as part of a connection to the Aerotropolis.



Key elements within this hub include:

- The Louis Botha TOD Corridor
- The proposed Randburg – Sandton – Marlboro Corridor
- Watt Street node around Rea Vaya BRT interchange
- Marlboro Station node around Rea Vaya station and social housing
- The proposed Modderfontein mixed use node
- The proposed Modderfontein Gautrain Station
- Expanded Industrial Nodes
- Franken Wald

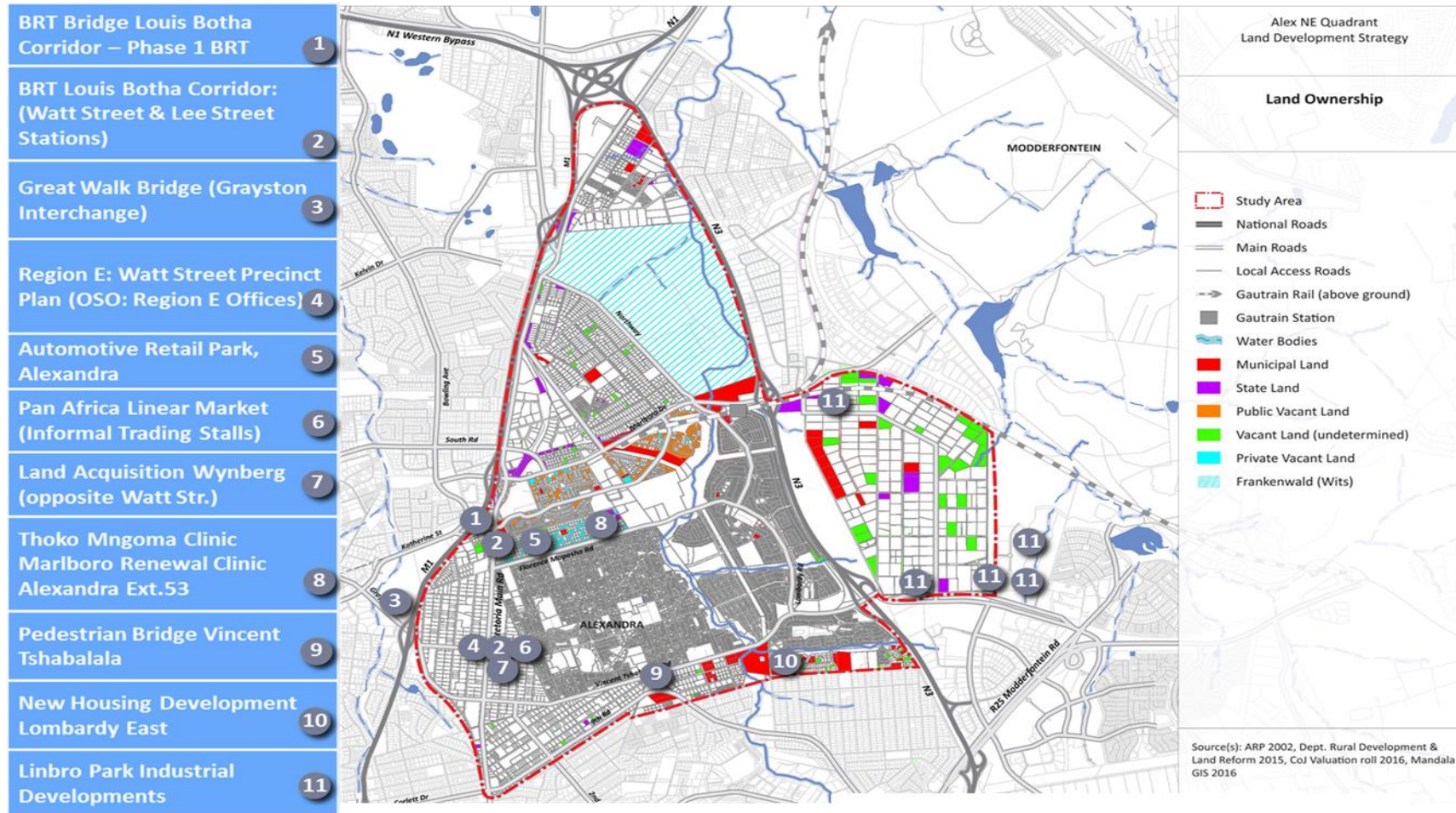
Map 7: Alexandra Integration Hub

The reasons for proposing the above include:

- Industrial areas in the vicinity are well located in relation to the Province’s network of highways and are well located to access OR Tambo Aerotropolis. Certain industrial areas have suffered due to illegal occupation of factories;
- The implementation of the Louis Botha Avenue Transit Orientated Development Corridor and the Randburg/ Sandton-Marlboro corridor (with its extension to Ivory Park) will intersect the area in question increasing the potential for transit orientated development within the zone;
- In terms of integrating the dispersed urban fabric that comprise the Gauteng City Region, the development of the zone in question is critical to ensure a more coherent urban form. However to achieve this, significant public investment is required to

address the barriers to this integration, in particular: the N3 Highway, the M1 Highway, the Linbro Park Landfill Site, transmission line servitudes, the Gautrain Railway Servitude and a lack of pedestrian access routes and associated facilities. Already the two new bridges over the M1 which focus on pedestrian and other NMT movements is addressing this;

- The introduction of bus rapid transit related development will improve the affordability of movement to and from this area;
- The Zone in question is the location of the last remaining large portions of undeveloped land in the east of the City. It is critical that this land be developed in a sensitive manner and integrates new development with the existing urban fabric. The development of these large scale infill developments do also require: i) substantial investment in bulk infrastructure; ii) inter-governmental planning and implementation of a range of projects at different scales; iii) a broadly agreed phased approach; iv) development strategies that are focused on inclusivity.
- In addition the zone is the location of large public and private institutions and land owners. The potential to negotiate public/private partnerships for the development of the area is higher than in other areas within the City; and
- The development of the integration zone could better integrate Ivory Park with the City of Johannesburg through the extension of Marlboro Drive through the Modderfontein land holding.



Map 8: Alexandra Integration Hub

B2. SPATIAL TARGETING

B2.1 Integration Zones

Integration zone can be defined as conglomeration of all the priority areas within the City. These zones are characterised by high intensification of land uses and medium - high density residential developments associated with Transport Oriented Development Precincts as well corridors defined in various City's spatial plans. The previous BEPP's identified the City's development corridors as the primary network including the Transit Orientated Development Corridors and the Mining Belt as the integration zones.

In interpreting municipal plans, specifically the spatial plans of the City as captured in the SDF in terms of the Urban Network Model, it is acknowledged that the spatial realisation of the SDF is too detailed for prioritising medium to long term qualitative change in the built environment. To this end the Priority Transformation Areas, previously known as Capital Investment Priority Areas (CIPAs), (see Map 7: Economic Zones, Priority Development and Integration Zones) were developed. The Priority Transformation Areas define the primary network for the City. The city's Priority Transformation Areas provides the basis for prioritising and re-directing the City's capital budget for the medium to long term. The Priority Transformation Areas are:

- Inner City (the CBD);
- Transit Orientated Development Corridors (ToD) with a focus on the Louis Botha, Perth-Empire, Turffontein as well as the East West corridor from O R Tambo to Randburg in the longer term;
- Mining belt;
- The mixed-use and industrial nodes;
- The Marginalised/Deprived former black townships of Ivory Park, Diepsloot, Alexandra, Soweto and Orange Farm where the highest levels of deprivation and the highest population densities are located within the City (the secondary network); and,
- Informal Settlements

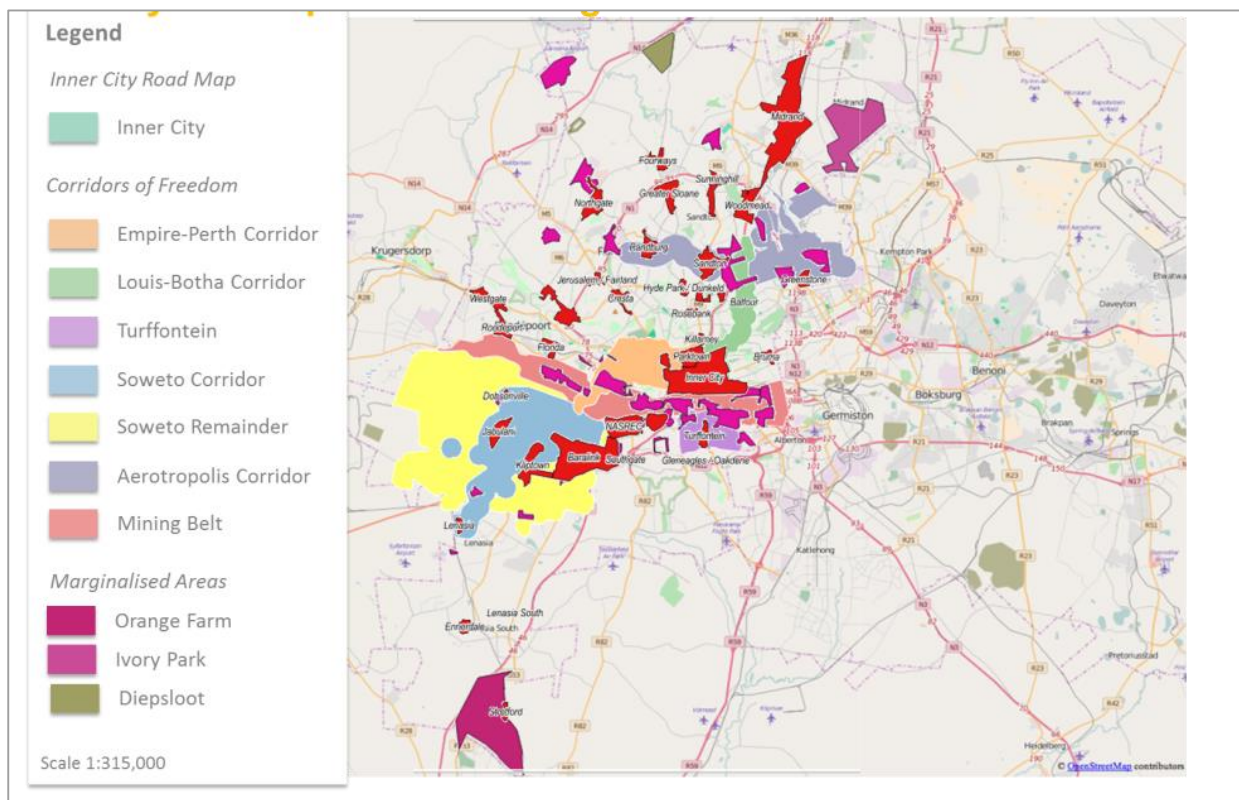
Detailed plans for the integration zones have been compiled in the form of Strategic Area Frameworks (SAFs) as detailed below. The City has acquired land along transport routes and stations, within corridors, in order to achieve its vision of high intensity mixed use developments. Moreover the city has to do more work in the strategic areas in order to ensure that it achieves its spatial vision and developmental objectives and such includes the following;

(i) Improve infrastructure capacity for development in strategic growth areas

This category of investment targets the transformation zones and strategic economic nodes to ensure adequate capacity for development to accommodate urbanisation and economic growth needs. Development programmes in the transformation zone require additional

capacity to implement the respective development strategies and accommodate intensification and densification and to ensure better functionality of the urban system.

The transformation areas are the main focus for future development through urban intensification and expansion and thus are high priority areas for growth enabling capital investment. Each of the programmes that make up the transformation zone already have detailed development frameworks and precinct plans to guide capital investment. Investment in these areas covers the full range from engineering infrastructure to social infrastructure and facilities. Transit Orientated Development Corridors (formerly The Corridors of Freedom) and Inner City have clear investment programmes, with funding allocations in the MTEF, that will ensure the desired urban structure and developmental outcomes are achieved.



Map 9: Economic Zones, Priority Development and Integration Zones

Another priority for intensification and expansion is investment to support economic growth centres in terms of the Johannesburg Economic Strategy. Investment in economic infrastructure will support and safeguard the current economic backbone of the city and ensure growth and expansion possibilities and the creation of jobs. The investment focus on the nodes is also of strategic importance for the deprivation area programme to ensure more economic growth and job opportunities in close proximity of economically marginalised areas. Where economic nodes form part of the transformation zone such investment is already integrated in the respective development programmes.

There will never be adequate funding available to cover all the competing infrastructure and development needs across the whole city. Thus, the JSIP and the associated capital investment planning process assist the city to find the best balance between the different competing interests and ensure that the optimal mix of investment to secure and improve the

current asset base and achieve the objectives for upgrading and development of deprived areas and future development aspirations and needs of the city.

Even though broad priority areas for investment have been identified, funding availability, economic growth rates and practical considerations require that development and growth have to be managed. The concept of growth management firstly requires that growth and investment have an area based focus in order to consolidate a range of investments that will have a catalytic effect. This area based focus has already been defined in the detail plans that support the transformation zone. The second implication of growth management is the phasing of growth and the timing of investment that will release new growth opportunities. It is therefore important that growth trends be monitored and interpreted to influence policy and investment decisions. Growth management is also linked to the SDF development indicators that will provide a measure of the success in relation to the intended development outcomes and targets. This would then allow for future adjustments of investment policy to be more responsive to prevailing conditions and development objectives.

The SDF integrates all the urban components of infrastructure, transport, housing and economic development to provide the basis for targeted capital investment to achieve current and future development outcomes and targets.

(ii) Possible Incentives and Institutional Mechanisms in Corridors

Transit Orientated Development Corridors is defined as a programme through which the City will use *public investment in transportation, engineering and social infrastructure, administrative levers* (such as policies and incentives) to directly intervene in the locational decisions that are made by both the state and the private sector, to reconfigure the City's urban form.

Limited budget availability for infrastructure projects within the Corridors have been severely hampering development within specifically the Louis Botha Corridor. Decrease in budget allocation over the last 3 years have impacted infrastructure availability (specifically electricity and water and sanitation), to the extent that the planned "Special Development Zone" mechanism and even town-planning applications for higher densities have been negatively impacted.

1. Louis Botha Corridor

This corridor connects the Inner City (CBD), Alexandra and Sandton. The corridor is located in the central eastern area of the City; primarily in Administrative Region E. In terms of the Strategic Area Framework the plan identifies priority precincts and projects. The Corridor is focused on Louis Botha Avenue, which becomes Old Pretoria Main Road north of Alexandra.

The Louis Botha Strategic Area Framework is the City's Guide for the short to medium term development of the Corridor. The priority precincts comprising of mixed nodes proposed by the Louis Botha Strategic Area Framework are: Marlboro, Wynberg, Balfour Park and Orange Grove (See Figure 8: Priority Development Areas within the Louis Botha Corridor). These are mixed nodes located along the Louis Botha Corridor. These precincts are located

in the vicinity of proposed BRT Stations. It is in these areas where intensification of land uses (such as residential, economic and social uses) are encouraged the most.

The key interventions planned for the corridor in the short to medium term are:

- Infrastructure capacity for densification
 - Power- R75,000,000.00
 - Water- R65,000,000.00
 - Sewer- R25,000,000.00
 - Roads- R32,953,800.00
- Transport infrastructure (Bus Rapid Transit infrastructure for Louis Botha) including the Watt Street interchange at Wynberg will cost approximately R2 billion, this project is to be funded out of the Public Transport Network Grant (PTNG)
- Patterson Park redevelopment and facilities – R132 million
- Marlboro Housing – R414 million

The Bus Rapid Infrastructure for this corridor is currently being implemented. A detailed list of projects for the Louis Botha corridor for the MTEF is detailed in section D.

Main Objective of the Corridor

The main objectives of the current initiative is to optimise development in and around high intensity movement corridors, to create more inclusive and accessible opportunities for the residents of Johannesburg and create economies of scale that are attractive to investors. The future vision is premised largely on theories and best practices around the notion of Transit Oriented Development of TOD, which seeks to create urban spaces with a vibrant mix of high density residential developments, office, retail and recreational spaces within walkable precincts anchored by transit facilities, serviced by high quality social amenities.



Figure 11: Priority development areas within the Louis Botha Corridor

Current projects within the corridors:

- Paterson Park: Various Developments
- Watt Street Interchange

Paterson Park: Various Developments

Promoter/Project Owner: City of Johannesburg, City Parks, JPC & JDA

Budget: +/- R95.5 million

Status: projected end date December 2022

Paterson Park is a large municipal owned property (approximately 13 hectares) and is currently being redeveloped to include a range of mixed uses.

The aim for this area is to create a vibrant high density mixed-income precinct within high quality public environment.

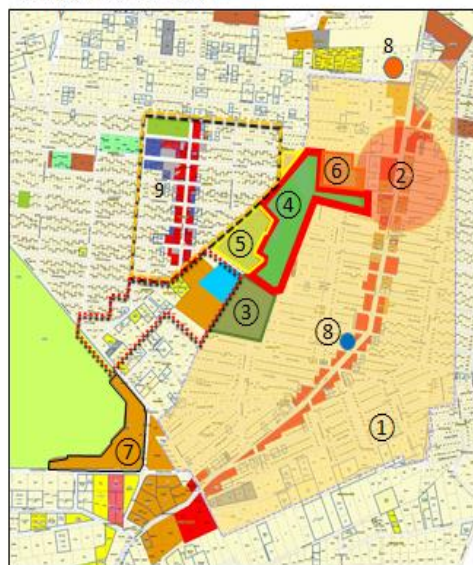
Residential densities range from 250 to 600 du/ha with heights varying from 2 to 10 storeys (possible residential yield of 1 500 units). A significant component will be social housing, however Victoria Extension 3 will be reserved for market related housing development with 20% inclusionary housing.

The following activities are currently underway on the site:

- Construction of social facilities (multi-purpose sports facilities, swimming pool and library)– to be completed June 2020
- Town planning applications have been finalised; services installed and the tender process for the release of Victoria Extension 3 is underway
- Relocation of depots currently on the site planned for 2020/21 in order for land release for mixed-use and residential developments
- Phase 1 of the Stormwater facilities have been completed – a natural stormwater system enhancing the open space functions. Further stormwater upgrades required.
- Upgrading of main park as well as Short Street park completed (although part of main park is affected by further storm water work and the relocation of the depots)
- Public environment upgrades to complete precinct, including links

Paterson Park Regional Context

CURRENT DEVELOPMENTS



Local Initiatives

1. Proposed residential densification: Louis Botha Corridor of Freedom
2. BRT mixed use node development
3. New Community Centre
4. Parkland Area: Redevelopment & Upgrading of Paterson Park
5. Residential densification and retaining approximately 40% as a public park
6. Mixed use development, including residential
7. Houghton development – apartments and hotel
8. Orchards Clinic
9. Grant Avenue High Street upgrade



Watt Street Interchange

Promoter/Project Owner: City of Johannesburg, JPC, Transport & JDA

Budget: +/- R 161 921 000

Status: Infrastructure project under construction.

The aim is to create a new east-west connection between Alexandra and Wynberg/Sandton and develop a landmark development at this newly constructed intersection:

- Provides walking and cycling facilities within proximity of the interchange –integrating with “The Great Walk” and the BRT station
- Release City owned portion for a mixed use development-offices, apartments and retail and a landmark public open space
- Size of the subject area is 2.7ha located along the Louis Botha Corridor at the gateway into Wynberg and Alexandra area

Challenges include the cost of the infrastructure and the constraint in terms of electricity supply.



Proposed Watt street interchange development



2. Empire Perth Corridor

The Empire-Perth Corridor connects the CBD and Soweto - the largest collective of former black townships in the City- to the south-west. The Corridor follows Empire Road – Stanley Avenue – Kingsway – Perth Road – Harmony Street – Fuel Road – Commando Road – New Canada Road – Main Road (Figure 12: Proposed Perth/ Empire Corridor Strategic Area Framework identifying key features of the corridor).

The Empire - Perth Development Corridor is one of the “TOD Corridors”, that set out to provide residents and travellers freedom of choice, freedom of movement, and most importantly, connections to employment opportunities and economic freedom.

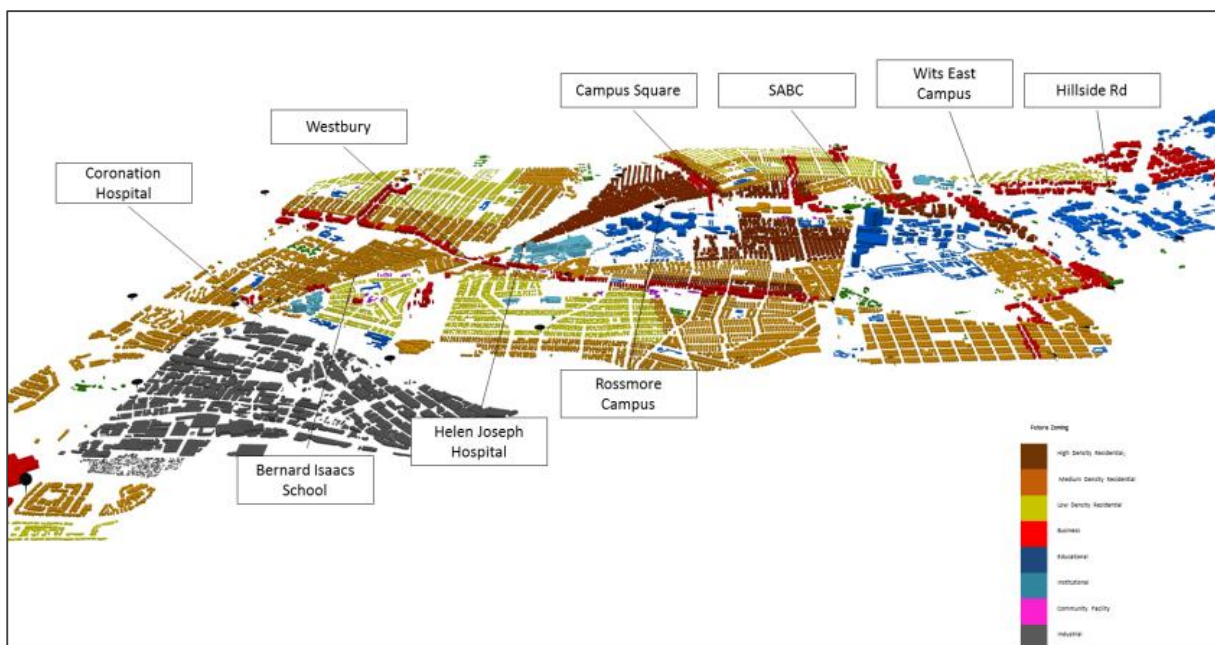


Figure 12: Proposed Perth/ Empire Corridor Strategic Area Framework identifying key features of the corridor.

Nodes within this corridor include Parktown, Auckland Park (including Melville), Milpark, Brixton, Martindale and Industria as well as other neighbouring industrial nodes (e.g. Croesus).

The area is characterised by institutions that are critical to the City, the Country’s economy and society. These include the University of Witwatersrand; SABC; the University of Johannesburg (Auckland Park Campus); Helen Joseph Hospital and Coronationville Hospital. The corridor also includes a number of lower income communities situated in three suburbs - Westbury, Pennyville and Noordgesig.

The Perth/Empire Strategic Area Framework is to guide the City’s development approach to the area. The proposed ‘basket’ of service interventions is intended to support the strategic intensification of land uses (such as high residential densities, economic and social services) within the Corridor.

Key Projects required for the corridor to realise its development potential include:

- Increased Infrastructure capacity for densification
 - Power- R190,060,000.00
 - Water- R40,000,000.00
 - Sewer- R20,000,000.00
 - Roads- R126,600,200.00
- Westdene dam Redevelopment – R21,970,000.00
- Westbury redevelopment including social facilities – R175 million
- Pennyville Housing – R140,000,000.00

The BRT infrastructure for this corridor has already been implemented. Detailed Project lists arising from the redevelopment of the Corridor are listed in Section D.

Brixton Social Cluster

Within the corridors large scale development densification is envisaged that will result in increased demand for social amenities and public spaces, as well as a more demographically diverse user profile. Therefore, the clustering of social facilities represents a key strategy in providing a basis for growth and intensification within the Empire-Perth Corridor. Brixton is one of the oldest and well located suburbs of Johannesburg and has been identified as a priority precinct on the basis that the area has potential to elicit short to medium term growth and intensification within the Empire-Perth Development Corridor / Corridor of Freedom. However the land available for new social infrastructure is limited and therefore existing clusters have to be optimised for current and future use. Brixton has an existing social cluster which comprises a park, library, swimming pool, tennis courts and sports fields, as well as an adjacent police station and a nearby recreation centre. A combination of catalytic interventions and upgrades are proposed with the intention of transforming the existing social cluster from its current underdeveloped and deteriorating state to a vibrant and sustainable social cluster that will offer a range of uses and choices to people who live, play, study, share, socialize and visit these facilities.

3. Turffontein Corridor

Turffontein is located to the south of the CBD on the southern edge of the mining belt. The Turffontein Corridor is different from the two corridors detailed above. Initially, the corridor was to be focused on Booyens Road/ Klip Rivier Drive and Rifle Range Road and the link to the existing BRT Route on Soweto Highway and the desire lines through to the Johannesburg South. However, due to urban decay being experienced in Turffontein and the potential for densification within the suburb, it was decided that the broader Turffontein area would form the focus of the Strategic Area Framework. Unlike the Louis Botha and the Perth/Empire Corridors no proposed Bus Rapid Transit system traverses the study area (yet). The existing Soweto Highway leg of the Rea Vaya systems serves the edge of the Turffontein corridor. The Transport Department is considering implementing a managed lane

to improve the reliability and speed of existing Metrobus and mini bus taxi services along this corridor.

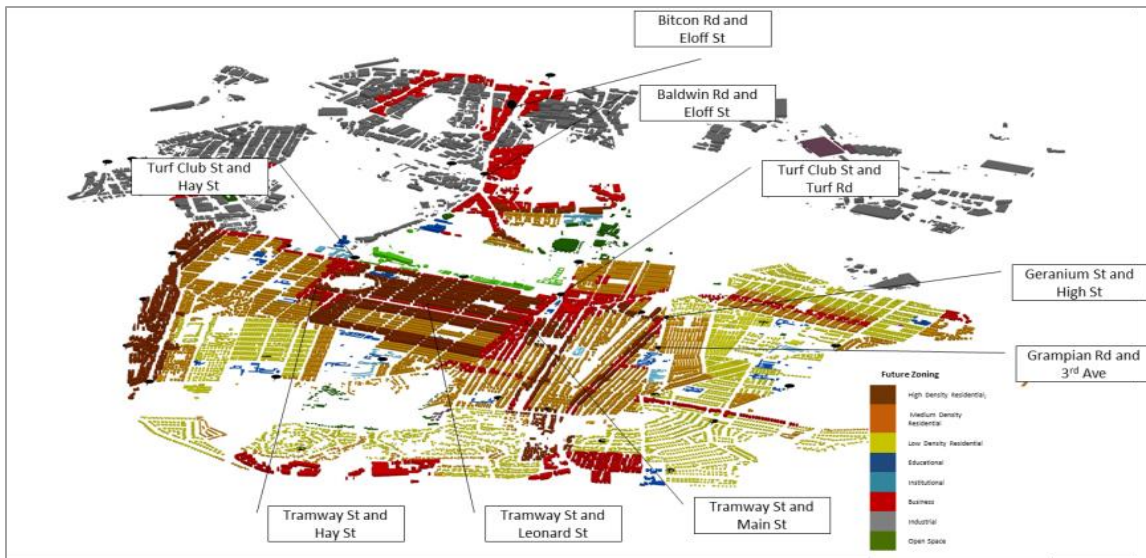


Figure 13: Turffontein Corridor Strategic Area Framework indicating key roads in the area

Turffontein and neighbouring suburbs, have a significant immigrant population which in part is due to the proximity to the CBD. A further noticeable trend has been an increase of poverty within the area. Despite the above mentioned, there is still a lively and important trade and associated commercial component within the area especially in the established industrial and activity streets. Structuring elements of the study area include: west-east railway line, the M1 and M2 Highways, mine dumps, the Robinson Landfill Site, the Turffontein Race Course, Wemmer Pan and Moffat Park.

Focal points for the Turffontein Strategic Area Framework include:

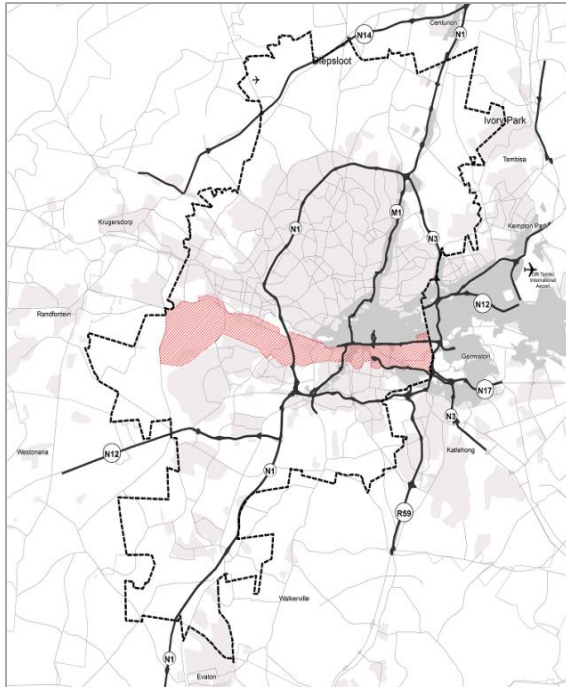
- Stafford Rail Station in Booyens Industrial Township;
- Wemmer Pan and associated open spaces and community facilities; and
- De Villiers Road and Rotunda Park within Turffontein.

The key service related projects to facilitate the redevelopment of Turffontein are:

- Infrastructure capacity for densification
 - Power- R1,887,306,000.00
 - Water- R86,947,000.00
 - Sewer- R25,000,000.00
 - Roads- R48,373,600.00
- Linear Central Park and community facilities – R30.6 million
- Rental and Social Housing – R269 million
- Wemmer Pan Redevelopment – R28 million

The list of service related projects is detailed under section D.

4. Mining Belt



The Mining Belt provides the opportunity of integrating the northern with the southern parts of the City as well as creating a strong east-west interrelationship. This is an area that runs across the City's borders in a west to east direction immediately south of the Central Business District, per *Figure 14*. The Spatial Development Framework defines the Mining Belt as an area for large scale redevelopment through the execution of commercial and residential developments.

The mining belt provides for an exclusive opportunity in restructuring the City given its proximity to structuring elements such as major routes, engineering services, etc. It is the most prominent feature of urban

fragmentation in the city. It is therefore the main focus of re-stitching the urban fabric by breaking down the physical barriers.

Figure 14: Mining Belt Broad Location

There are a number of key opportunity areas along the mining belt. These include the potential to integrate marginalised townships of Soweto with the broader urban and economic opportunities around Roodepoort towards Mogale City, and its role in facilitating the southern expansion of the existing Johannesburg Inner City area. However the developments need to remain cognisant of the challenges that are prominent in the area such as the following:

- Acid Mine Drainage;
- Under-mining;
- Wind-blown particulate matter from mine dumps which creates an urgent need to remove mine dumps;
- Poor road and rail access into the mining belt (poor north-south linkage into the area);
- Decline of industry within certain townships;
- Re-mining at certain points along the mining belt which has delayed the redevelopment of areas within the zone; and
- Location of poor communities within certain existing townships, hostels and informal settlements along the mining belt in hazardous locations.

Key opportunities in this zone:

- Improvement and expansion of the logistics port at the City Deep in line with the SIP2 priorities;

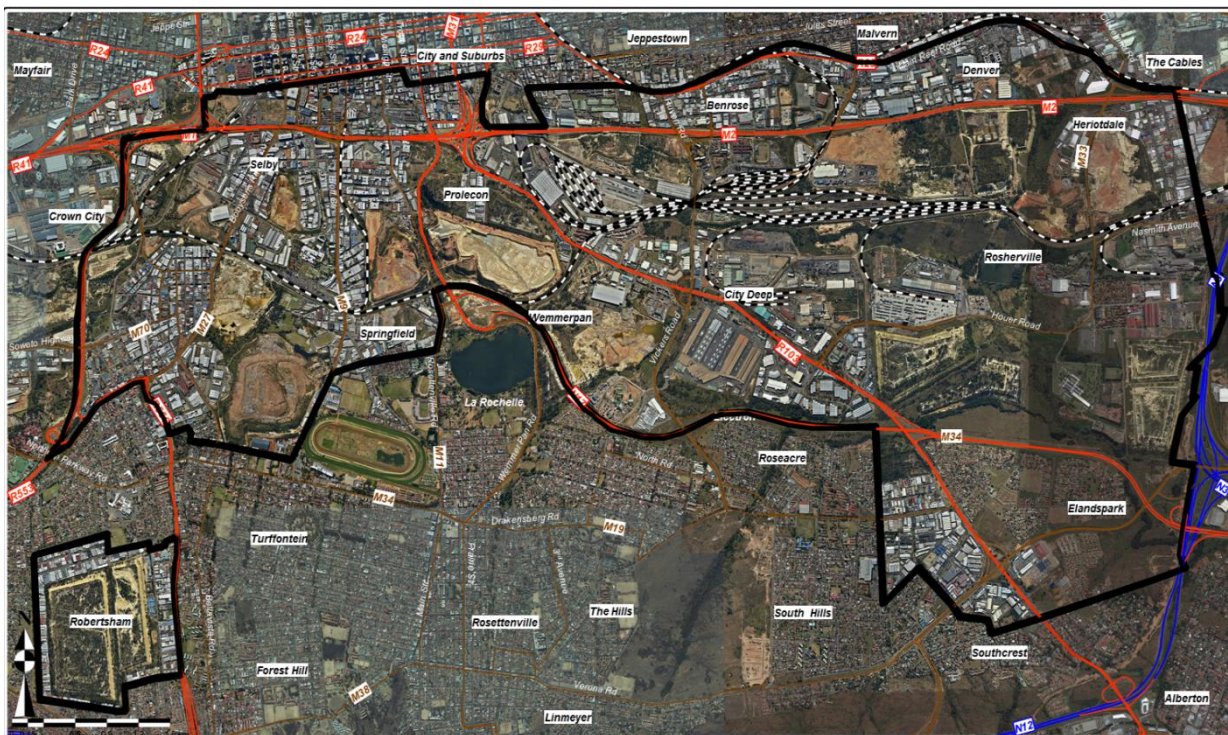
- Expansion of the Joburg Market in order to improve the City’s food security and look at opportunities to expand food processing enterprises within the area;
- Transnet’s on-going capital reinvestment programme to revitalise rail infrastructure and improve the quality and reliability of trips for commuters accessing the CBD especially from Soweto and Germiston;
- Two of the current Transit Orientated Development Corridors namely, the Perth-Empire Corridor and the Turffontein Corridor, traverse the zone. The interventions proposed in terms of the Strategic Area Frameworks for the Corridors could act as catalysts for a broader intervention within the mining belt zone;
- Significant areas of open land that have potential for redevelopment; and
- Willingness of owners to investigate proposals to redevelop the mining belt.

The scale and complexity of the challenges and opportunities within the mining belt need a coordinated response from all stakeholders. It is for this reason that it is proposed that the area is packaged as an integration zone for special intervention.

Mining Belt Strategic Area Frameworks

In realising the development of the mining belt, it had been divided into a western corridor and an eastern corridor, for which Strategic Area Frameworks (SAF) have been developed and approved by Council.

The Eastern Mining Belt Corridor is bordered by the N3 to the East and the M1 to the West. The full extent of the Study Area is depicted by the black outline in the figure below.



Map 10: Eastern Mining Belt Corridor

The development interventions proposed are based on the detailed analysis and synthesis done of the study area and more specifically the constraints presented by the mining land (mine dumps, reefs and slimes dams) which is a significant structuring element of the Mining Belt. The area has been divided into four functional areas

A Small-Medium Enterprise Zone parallel to the north of route M2 which extends southwards across M2 in the vicinity of Selby, Ophirton, Village Deep and Booyens towards the west.

- **Two Green Technology Energy Zones** associated with a solar farm and waste to-energy plant respectively on land not suitable for alternative uses in the foreseeable future.
- **A Fresh Produce Beneficiation Zone** (“Agrotropolis”) anchored around the existing Joburg Fresh Produce Market in the central core area. Intensification and expansion of the City Deep Freight Logistics Hub in the eastern extents of the study area.

An estimated 107 ha of developable land is located in the Small and Medium Enterprise Zone; 152 ha in the Green Technology Energy area; 196 ha forms part of the Fresh Produce Beneficiation area; and 494 ha is located in the Freight Logistics Hub.

8 below illustrates the proposed land use allocation per functional area.

Development Potential					
Land Use	Area (ha)	%	Functional Zone	Area (ha)	%
-Residential	15	2%	-Small and Medium Enterprise Zone	107	11%
-Business	13	1%	-Green Technology	152	16%
-Commercial	452	48%	-Fresh Produce Beneficiation	196	21%
-Industrial	318	34%	-Freight Logistics Hub	494	52%
-Extensive Industrial (Energy)	152	16%			
TOTAL	949	100%		949	100%

Table 8: Mining Belt East Development Potential

The proposed land use interventions are largely commercial and industrial with a very limited residential land use component.

The Development Framework and Implementation Strategy for the development of the above functional areas is based on the following 10 Development Principles (*detailed on pages 127- 131 of the SAF document*):

- Principle 1: Promote mixed use development as far as possible in all parts of the study area;
- Principle 2: Establish a comprehensive and functional regional open space system to serve the mining belt area;
- Principle 3: Consolidate small pockets of mixed income residential development at several locations in the study area;
- Principle 4: Share community facilities in surrounding urban fabric;

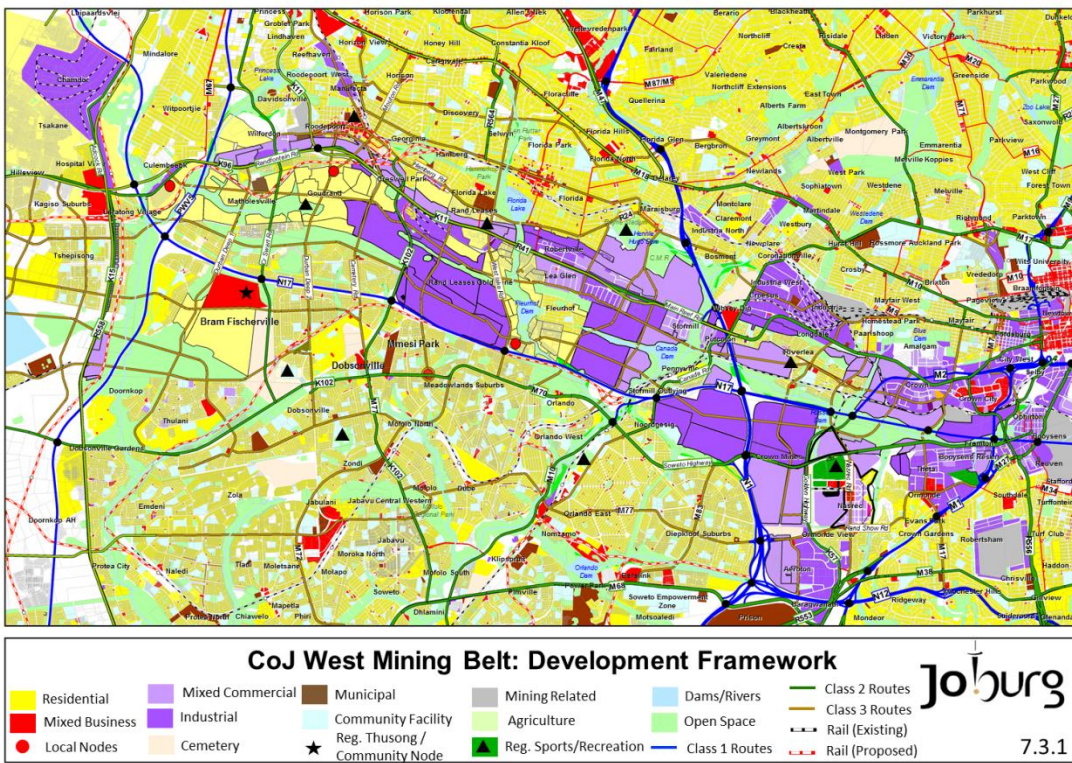
- Principle 5: Consolidate mixed business uses in a well- defined range of local and regional business nodes within and around the mining belt;
- Principle 6: Promote the establishment of green energy related industries in the south-western parts of the mining belt;
- Principle 7: Promote fresh produce value chain related industries in the central core of the mining belt;
- Principle 8: Promote logistics related commercial use around the City Deep Freight Logistics Hub;
- Principle 9: Introduce public-private partnership interventions to facilitate the reclamation of the various mine dumps and slimes dams;
- Principle 10: Facilitate the development of a comprehensive movement network in the mining belt area to unlock and optimise the development potential of all land parcels and to functionally integrate the area into the surrounding urban fabric.

A list of priority projects are identified for implementation within this SAF, along with estimated budgets. These projects were identified from the Sectoral Implementation Strategies and Plans discussed in sections 7 and 8 of the SAF document as well as the detailed Economic, Roads and Transport and Open Space Plans which are annexures to the document.

The Mining Belt comprises of deprivation areas², with predominantly category 2 deprivation areas. These areas are characterised by a built form and development patterns that is associated with urban sprawl and no sub centres in the area to link new urban development; thus presenting limited options for any integrated and sustainable development such as in Matholeville and Solplaatjie found in Mining Belt West. There is limited integration between these deprivation areas and the City.

As a response to the social and economic issues that were highlighted within the mining belt area the City of Johannesburg developed the Mining Belt West strategic area Framework in order to stimulate and enhance development in an area regarded as one of its key strategic development corridors aimed at facilitating development and regulating the development pressures experienced over the past years. The primary purpose of this framework is to achieve the future spatial vision for the City of Johannesburg which is based on an economically and socially transformed city that is sustainable, resilient and liveable. The public transportation network is the backbone of the City's spatial restructuring strategy. The intention is to optimise development in and around high intensity movement corridors, to create more inclusive and accessible opportunities for the residents of Johannesburg and create economies of scale that are attractive to investors.

² The SDF categorises the deprivation areas as in the Mining Belt as category 1 and 2



Map 11: City of Johannesburg West Mining Belt Development Framework

The Mining Belt West Strategic Area Framework developed strategies and work packages that are designed to achieving the overall vision of the City. These include areas of work that focus on enhancing development, stimulating economic growth in the area while also strengthening the social fabric of the area through well placed social capital interventions, programs and investments. The first package undertaken was the Fleurhof Urban Development framework which looked to uphold the integrity of the spatial development framework of the City while also achieving the city’s overall strategic development vision and a Roads and Transport Masterplan aimed at improving linkages and accessibility in the area, to support development within the mining belt.

Mining Belt West Roads Master Plan

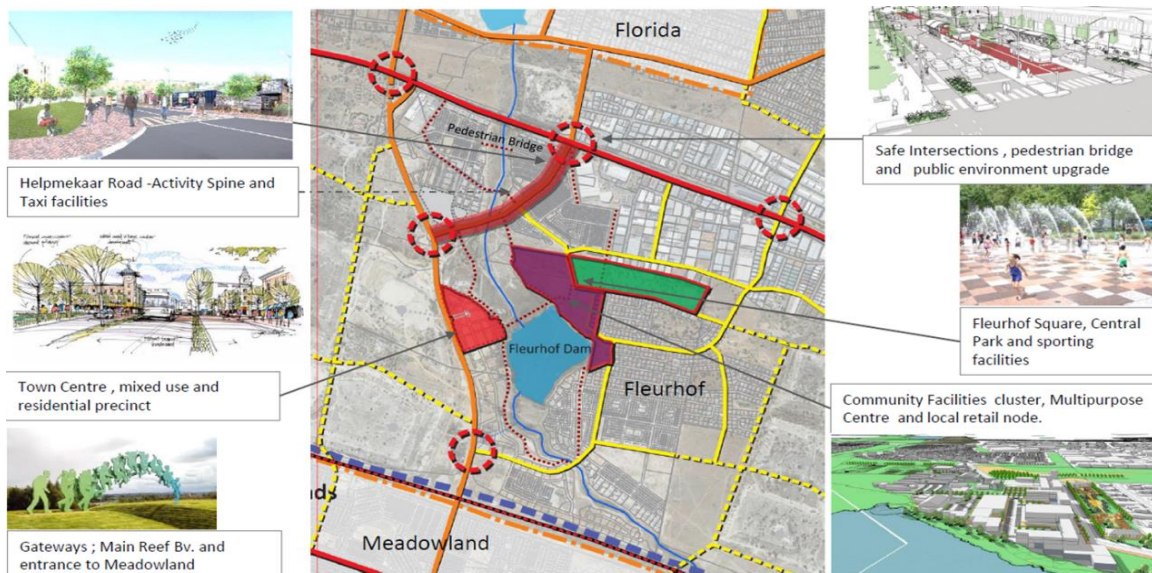
The Roads Master Plan is designed to increase accessibility and linkages; currently the area has a significant deficit from a road accessibility perspective. This holds true for both north-south and east-west linkages, especially on the west. The north-south road links are spaced at significant distances. Main Reef Road spans the entire study area. Considering the future planned network, if the planned roads are implemented, it is to alleviate the current road network’s accessibility deficit.

The drafting of the Roads Master Plan is underway. The greatest challenges that the project is currently facing is the lack of coordination, prioritisation and planning between various spheres of government. The lack of a coordinated planning, budgeting and prioritisation strategy between the different spheres of government cause issues in the implementation of projects and achieving the intended goals and visions. The implementation plans of various municipal plans become compromised if they rely on a competency that lies with either a national or provincial department. The various departments plan differently and function

incoherently which results in a disfigured implementation for infrastructure both hard and social. There is a need to align and coordinate planning in order to enhance the implementation of projects at a local scale. The importance of improved collaboration result in improved connectivity and accessibility.

Fleurhof Cluster Urban Development Framework

The Urban Development Framework is based on achieving a connected, revitalised and repaired area based on a development objective that seeks to improve development in the area, public transportation, infrastructure development, community facilities, economic investment, land use diversification, supporting the public and private open space system and urban management. To date, the conceptualisation of the multi-purpose centre is currently underway. The core purpose of developing the cluster is to ensure the promotion of a safe, attractive, liveable environment that encourages community ownership, improved



social cohesion and encouraging further investment and upgrading in the area.

Map 12: Fleurhof Multi-Purpose Centre.

5. Randburg-OR Tambo Corridor

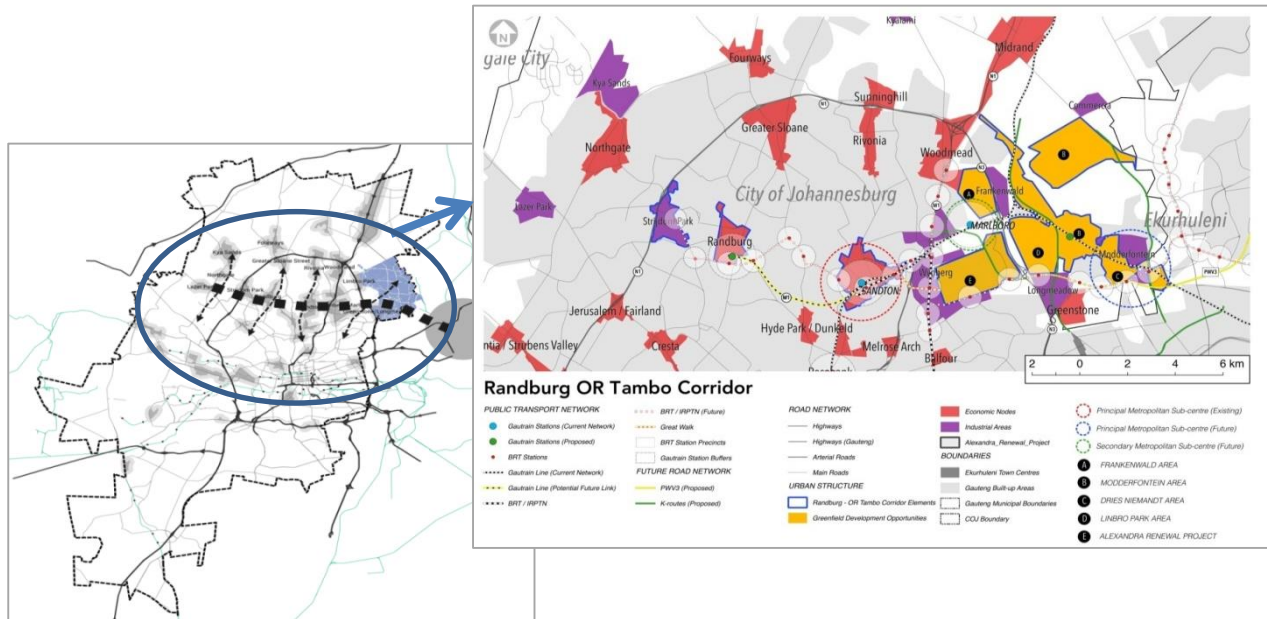


Figure 15: Conceptual Representation of the Randburg-OR Tambo Corridor

The rationale behind the Randburg-OR Tambo corridor is to create a strong east-west development corridor in the north of the city with a broader city region focus, while capitalising on the opportunities for infill development in the vacant tracts of land along this corridor. This corridor would also intersect with the north-south Transit Orientated Development Corridor along the Louis Botha Corridor, which links from Soweto past the Inner City into Sandton; thus strengthening connectivity to the metropolitan core and other principal metropolitan sub-centres.

Currently east-west connections are limited in the north, despite the City of Johannesburg and Ekurhuleni containing strong economic and growth areas in this region. In City of Johannesburg, Randburg and Sandton are well established and growing, and in Ekurhuleni the aerotropolis around OR Tambo is receiving significant attention and investment, to support established areas such as Kempton Park and Edenvale. At the same time, there are a number of opportunities in strengthening links between the two metropolitan areas. This includes the significant transit infrastructure planned in the area, including Johannesburg and Ekurhuleni BRT systems and the existing Gautrain link (with additional new stations) that provides an efficient transport link across the two metros.

The Randburg- OR Tambo Corridor is still in the conceptual phase and envisioned for the long term, a lot of work still needs to be undertaken. It is envisaged that in the future a Strategic Area Framework (SAF) will be developed for the Randburg- OR Tambo Corridor. The aim of the SAF will be to define the future development vision for the planning area, as well as the mechanisms which are required to achieve this future end state.

B2.2 Deprivation areas /Marginalised Residential Areas

Deprivation areas, formerly known as marginalised areas in the City of Johannesburg are often located outside of the transformation zones as indicated in the SDF 2040, however, this does not mean that the areas will be neglected. Deprivation areas are familiarised by a large portion of Johannesburg's population, these areas have been classified as deprived areas because they do not hold the qualities of sustainable and liveable neighbourhoods, an examples are informal settlements and low income formal areas.

The deprivation areas located outside of the Transformation zones have been a focal point of concentration on the basis that the configuration of the surrounding areas offers opportunity for growth that will improve connectivity and functionality at a local scale. Hence investment in these areas is to be focused on addressing inequality and creating liveable environments. These deprivation areas have been categorised based on each area's spatial context, opportunities and potential for development. Those categories are as follows:

- Category 1 deprivation areas are those that are relatively well located within the broader urban context. Greater Ivory Park area falls within this category and it includes: Ebony Park, Kaalfontein and Rabie Ridge.
- Category 2 areas are mostly situated on the western suburban fringe and are to a certain extent disconnected from the urban continuum. Deprivation areas that fall within this category are Diepsloot, Zandspruit and informal settlements near to Lanseria Airport and Kya Sand.
- Category 3 areas are peripheral. They are situated mostly to the south of Soweto and are far removed from any significant economic centres within the city region. Orange Farm, Lehae, Poortjie and informal settlements in surrounding areas fall within this category.

Urban Development Frameworks (UDF's) were developed and approved by the City in 2010 for three of these deprivation areas, namely Greater Orange Farm, Greater Ivory Park and Diepsloot. The development proposals outlined in these frameworks are still relevant and are currently being implemented by the City through a co-ordination forum that is being established to oversee project implementation and inform project prioritisation and budgeting.

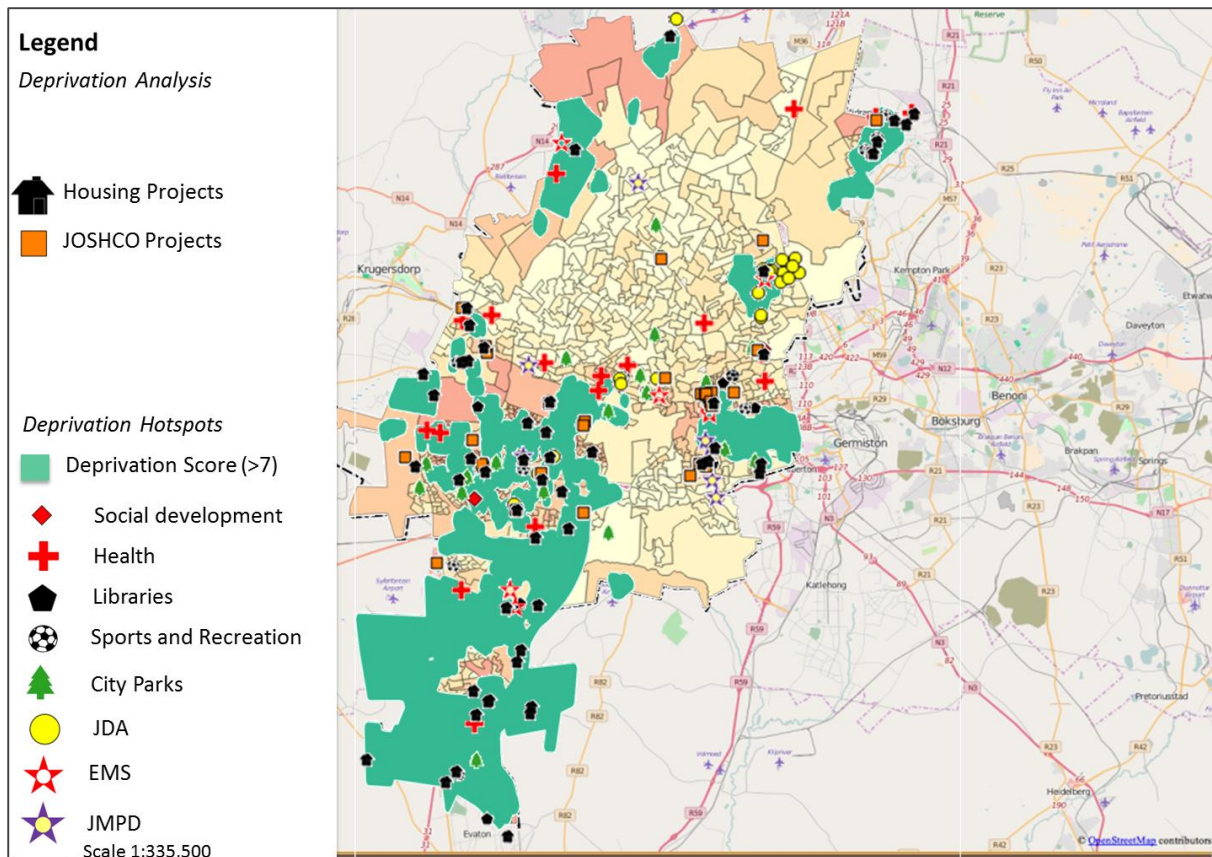
i. Development strategy for Deprivation areas

The strategy implies that connections from deprivation areas to local and regional centres of employment should be strengthened and that new development is required to alleviate the housing need in these areas. The nature of these developments should be sustainable and liveable settlements with a range of housing typologies that also respond to affordable and low cost housing needs in the area. Any new development in the deprivation areas has to demonstrate its contribution to a more compact, integrated and efficient development pattern and as such the development parameters in this area will impose strict criteria and requirements to ensure the intended outcomes of the strategy are achieved.

The intention of the development strategy is to maximise the potential of the deprivation areas within the context of their distinct characteristics. The intended outcome is to resolve the problems associated with deprivation areas and at the same time create patterns of development that support compact city principles (at a local scale), create improved connectivity, improve quality of life and provide the building blocks for economic growth. The focus of the strategy is to address developmental issues within the local context that will ultimately allow for seamless integration in the long term. It is imperative that this investment is generative in nature, rather than merely responsive. Any new development and investment should seek to establish a clear urban logic that can serve as a basis for future sustainable urban evolution.

ii. Infrastructure investment to deal with backlogs in deprivation areas

This investment is specifically focused on eradicating backlogs and deficiencies of engineering and social infrastructure related to the deprivation areas. Investment in these areas also needs to address the structural and built form aspects that have been raised in the SDF. Infrastructure investment is therefore targeted at resolving problems specifically related to the deprivation areas and at the same time create sustainable and liveable settlements as an outcome.

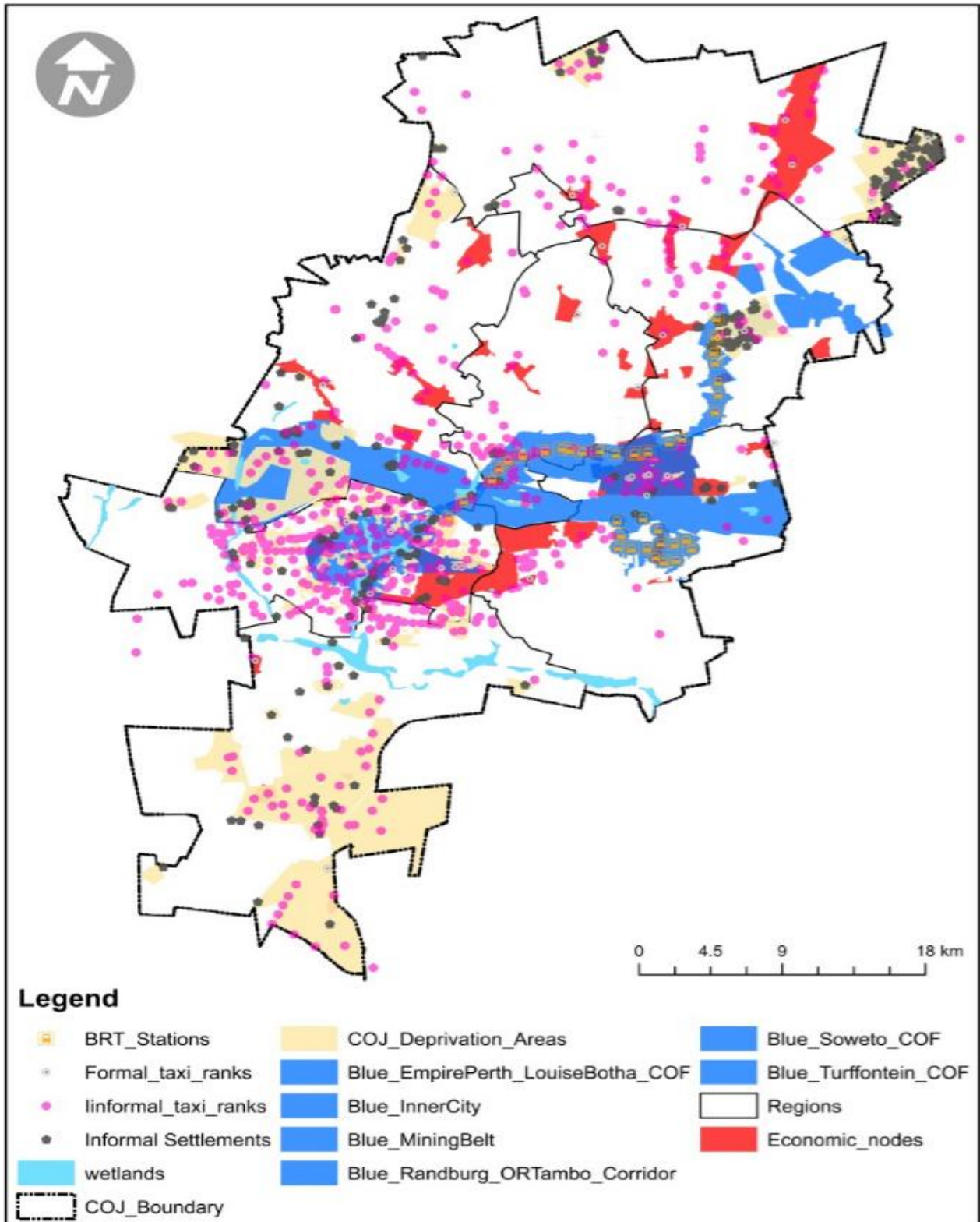


Map 13: Investment related to Marginalised Areas

Informal Settlements

Cities such as Johannesburg have the enormous challenge of improving the lives of those living in informal dwellings and closing the gap between rich and poor. If Johannesburg is to become an inclusionary arrival city, it needs to make space for the urban poor majority through good planning initiatives such as densification, diversification and integration. There is an existing housing backlog in the city, while the population is growing: those who are informally housed in often inadequate living conditions. Informal dwellings include informal settlements, informal backyard dwellings, and formal buildings that are informally occupied. While these areas are often well located (areas on that people have chosen to live there) they are often poorly serviced (if at all), living conditions are often inadequate, and they can pose risks to their inhabitants, from fire to flooding, illness and crime. The Sustainable Human Settlement Urbanisation Plan (March 2012) compiled for the City's Housing Department, provides an overview of the spatial location and characteristics of informal settlements in Johannesburg. The CoJ informal settlement database identifies each informal settlement by name and spatial referencing, and links the settlement to a dataset with attributes (such as number of units, ownership, infrastructure, category – i.e. relocate, in-situ upgrade, regularise, project linked).

Analysis of Informal settlements in the city of Johannesburg as represented in Map 12 above, discloses the relationship of Informal settlements to public transport and areas with economic opportunities. In some instances one can draw information on how these informal settlements were established looking at various factors such as locality, availability of public transport and where economic opportunities area located. Detailed analysis from map 12 illustrated how informal settlements are spread throughout the city. There are 80 informal settlements within the integration zone (the blue colour on the map), 162 informal settlements outside the integration zone, 23 informal settlements within the economic nodes and 164 informal settlements within the marginalised areas. A large percentages of informal settlements are located in Region A and Region E mainly in Zandspruit and Alexandra.



Map 14: Informal Settlements in CoJ

The City of Johannesburg reiterates the position supported in national policy (e.g. Breaking New Ground, the National Development Plan, National Development Outcome 8 and the National Upgrading Support Programme) and City of Johannesburg Policy (e.g. SHSUP and the City's Informal Settlement Regularisation Policy) that in-situ upgrading of informal settlements should be the first option for intervention, with relocation only applied where upgrades are not possible and where the land inhabited is unsuitable for human habitation. When relocation is necessary, distances should be kept to a minimum (within 2 km). Moving people far from where they live moves them away from the opportunities, livelihoods, relationships and amenities that prompted them to locate there in the first place. The outcome of the Formalization and Regularization of Informal Settlements Programme being undertaken is that informal settlements will be mostly upgraded in-situ. Most of these settlements are situated within otherwise established formal settlements, but there are some that are located peripherally or in isolation from the larger urban areas. The danger is that their regularisation could further entrench the geography of poverty. However, due to historical processes of development and engagements with the affected communities the City is obliged to continue with the upgrading process – unless the supply of well-located medium to high density projects can be rolled out at scale.

From 2019/20 financial year, the City will be in receipt of the Informal settlement Upgrading Grant from the National Treasury to assist with implementation of the City's Informal settlements upgrading strategy. It is required that the strategy deal with the following issues for communities living in informal settlements

- Tenure security: provide tenure rights to households living in informal settlements
- Health and security-ensure the provision of health and secure living environments for households living in informal settlements
- Empowerment-Facilitate community partnership and participation

Informal settlements strategy

In November 2014, the department did an in-depth audit and it was discovered that there were two hundred and sixty three informal settlements (263) of which, thirty seven (37) have been relocated and forty five (45) have been formalized, the balance is therefore hundred and eighty one (181) informal settlements with an estimated 167942 informal structures. Currently the city has identified and prioritised 51 well-located informal settlements for upgrading by providing access to basic services and security tenure per beneficiary. For 2019 the City has identified 11 Informal settlements to prioritise along with a specific road map.

The following are some of the informal settlements the city is addressing in 2019:

Name of the informal settlement	NUSP phase 1 and 2	UISP (project application 1 activities)	Budget	Comments/progress
•Rugby Club	Completed during 2017 Sept., except upgrade plans and the livelihood plans	consultation plan, detailed socio-economic plan, geotech phase 1/NHBRC enrolment, EIA, Draft layout plans, services report, interim business plan	A budget of 14m made available in the current financial year. NUSP activities are funded through the National Human Settlement Department	Advert made through JPC for project application/initiation activities, bids closed on the 11 Dec. 2019,
•Heavenly Valley				
•Bottom Compound/Time House				
•Mighty Hardware				
•School site/Matholesville				
•Ebumnandini				
•Slovo Park (there is a court order that compels the City to upgrade in line with UISP)				
•Princess Plots (various plots)				
•Zandspruit (various plots)				
•St Marrys				
•Lilly Bioscope				

Table 9: List of informal settlements the City is addressing³

Simplified model (road map) towards upgrading the 10 informal settlements

Stage 1: Packaging of the draft layout (in line with geotech phase 1) and engineering designs (electricity)

During this stage, the Department of Housing of CoJ in consultation with the affected residents and the appointed professional team will package a draft layout plan (for both Category A, B1, and B2 Settlements) guided by both Section 2 of the Housing Act of 1997 and existing spatial planning tools. The UISP dictates that services sites be created as the first priority intention/developmental response. A detailed socio economic survey will be undertaken parallel to the process of packaging the draft layout including preparation of the detailed engineering services (electricity) and the preparation of an interim business plan. This stage also covers the following critical activities: the establishment of the dispute resolution committee, resettlement of families to the sites including addressing the challenges of the foreign nationals who are not documented. Once the geotech phase 1 study is completed, an application will be submitted to the NHBRC for project enrolment. Furthermore, an application will be made through NEMA for authorization. This process will take approximately 6 months for small settlements such as St Marrys, Mighty Hardware, Heavenly Valley and Bottom Compound. The Department planned to conclude this activities for a period of 12 months for the following settlements: Princess Plot, Ebumnandini, Rugby Club, Lilly Bioscope and Slovo Park.

Stage 2: Funding reservation processes (phase 1 activities in line with UISP, Emergency Housing and IRDP where applicable)

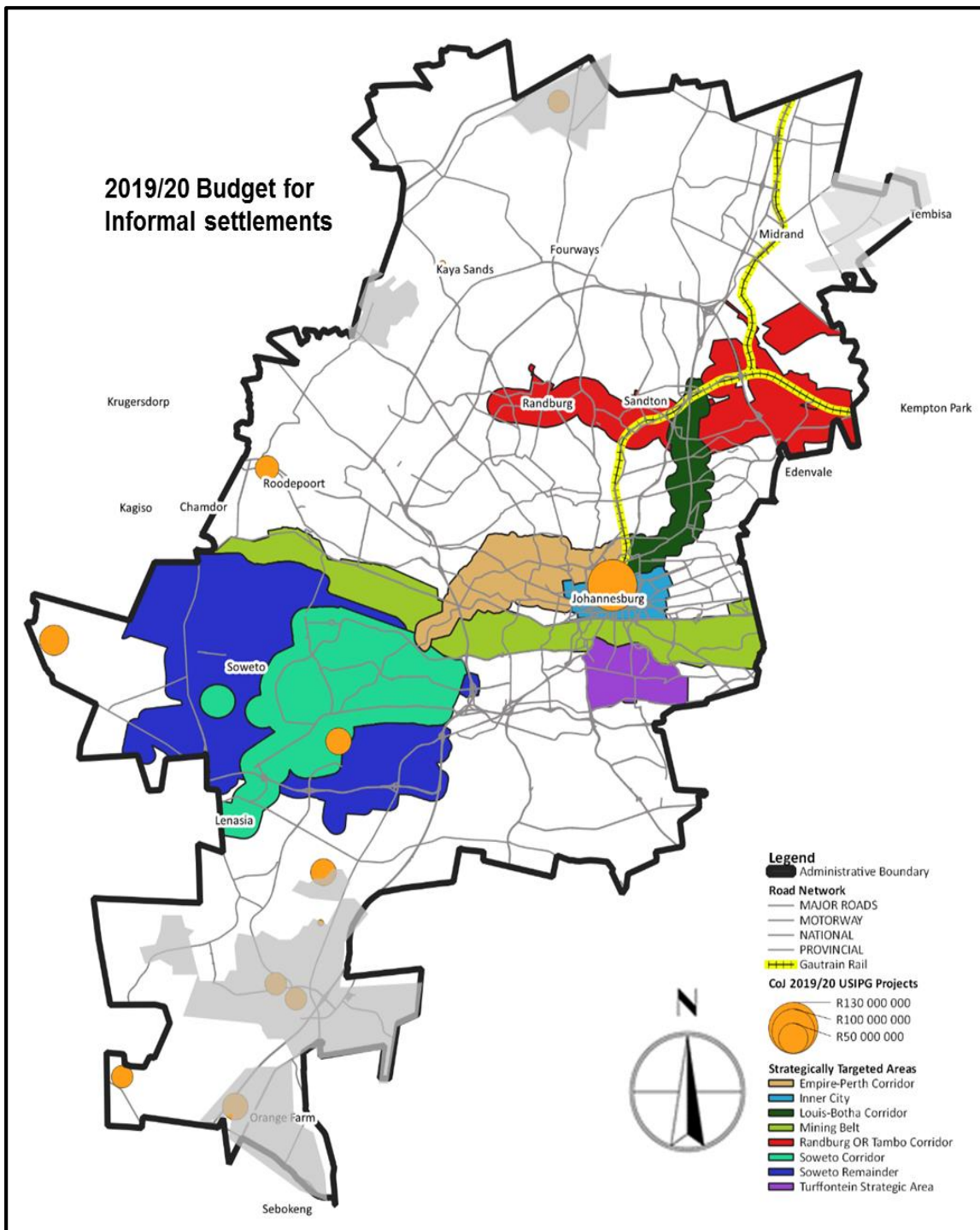
³ The list is subject to change

Once a draft layout is packaged, the Department of Housing of the CoJ will present a report to the Mayoral Committee requesting amongst other things authority to submit a funding reservation application to the Gauteng Human Settlement and CoGTA under UISP. An interim business plan will be used to source funding under the UISP. The following documentations must be attached to the interim business plan: Maycom resolution, MOU signed by both CoJ and the representatives of the affected settlement, upgrade plans. Applications will be submitted during April 2019 to the Gauteng Human Settlement and CoGTA.

Stage 3: Detailed planning activities

The Department of Housing of Coj will appoint a team of consultants to prepare detailed planning activities in line with existing planning prescripts such as SPLUMA of 2013 including preparation of a business plan.

An application for additional funding will be made to the Gauteng Human Settlement and CoGTA under UISP for detailed planning activities. A professional team/s will be appointed to undertake detailed planning activities for the following settlements in July 2019: Bottom Compound, Lilly Bioscope, St Marrys, Mighty Hardware and Heavenly Vallely. A professional team/s will be appointed during January 2019 to undertake planning activities for the following settlements: Rugby Club, Princess Plot, Ebumnandini, Rugby Club and Slovo Park. It is estimated that the detailed planning activities will be concluded in a period of 24 months (excluding the installation of engineering services).



Map 15: ISUP funded Informal settlements

In 2019/20 the City is planning to spend R365 million on upgrading Informal settlements as provided by the national treasury under the Informal Settlements Upgrade Programme grant (ISUPG). The allocation is equivalent to 6% of the total draft capital budget for 2019/20.

Other marginalised residential areas

Backyard units

Most of the City's 320 652 backyard units are located in Region A (34%) and Region D (44%). Backyard units represent a far greater challenge to the municipality due to the scale and the complexity of regulating the phenomenon. Informal back-yarding must also be addressed where it yields sub-standard living conditions. The aim here should not be to do away with back-yarding. The practice of backyard rental housing provides valuable income for home owners, provides affordable shelter for the urban poor, and densifies low density urban areas. The City should see the process of back-yarding as a positive one that can be adapted and improved to maintain livelihoods and provide affordable housing in the city in a way that provides an adequate standard of living, access to economic opportunity and improved quality of life for low income urban dwellers. There is a definite correlation between backyard units and better located areas with infrastructure, such as Alexandra, Ivory Park and Diepsloot, as well as Soweto, compared to Region G that only accommodates 10% of all backyard units.

Housing Strategy

Johannesburg population is growing rapidly and is estimated to be at 5.8 million people by 2020. Population growth is one of the major drivers of the demand for housing. The effective demand for housing in 2020 is estimated at 400,000 new units excluding existing backlogs. Assuming that 30% of this demand is for low income housing then 120,000 units are needed by 2020. At the current cost of supplying an RDP house (R250 000 per structure, including bulk) this equates to R30 billion which is the size of the total National South African budget for housing. This delivery rate is unprecedented and requires extra-ordinary intervention.

PROJECT NAME	Total Estimated Project Cost R 000	Budget 2018/19 R 000	Budget 2019/20 R 000	Budget 2020/21 R 000
Site and Services - Formalisation of informal settlements across the City. Renewal Bulk Infrastructure JOHANNESBURG F City Wide	213 958	118 500	30 000	65 458

Table 10: Site and Services in informal settlements across the city.

Arguably a new system for delivery is required. The current state-led, private contractor built model has been prone to corruption, poor industry standards, lack of oversight and governance and poor quality construction.

The City of Johannesburg housing strategy is aimed to rigorously address the challenges of multiple, diverse and often conflicting housing needs, desires and aspirations that are besetting housing in the City. The Strategy is the user-beneficiary, it is has a concise understanding of the user of public housing which opens up opportunities for innovation.

The Housing Strategy objectives are organized into the following thematic areas that capture key challenges that the current housing supply presents **Existing Deficiencies of the Housing System; Financing and Affordability** as well as **Need and Demand**

The housing policy scalable enough to unanticipated future changes in housing demand or needs and that speaks the current housing crisis will benefit the City by ensuring that housing supply meets relative demand efficiently across a range of innovative housing typologies; clarify the housing demand – need and supply; and diversify the current suppliers of housing based on changing demand pattern across a range of income levels and suitable for a range of users.

Housing allocation policy

Housing delivery backlogs remain the City's greatest challenge, with illegal subletting, hijacked buildings and dilapidated buildings occupying the Johannesburg skyline. Equally, allocation has been barred with various issues ranging from illegal subletting, lack of transparency, inadequate facilities and property maintenance, outdated tenant records, infrastructure theft and vandalism, "queue jumping" phenomena in informal settlements, infrastructure theft and vandalism and low income generated from insufficient rentals are the greatest challenges for the City. In response to tis challenges the City has developed a housing allocation policy.

The policy sets out a criteria, process and procedure for the selection of qualifying beneficiaries through the fair, transparent and equitable allocation of housing opportunities to qualifying applicants; and prescribes a clear allocation criteria to ensure a more precise allocation process. It looks into various programmes for Housing namely Temporary Emergency accommodation; Upgrading of informal settlements; Greenfields and mixed developments; Economic rentals units; community hostels; social housing and community residential units.

Inclusionary Housing policy

The Johannesburg SDF 2040 took a bold step to call for inclusionary housing while the framework of implementation was being drafted stating:

"Until such time as the Gauteng Inclusionary Housing Bill is adopted or the proposed City of Johannesburg Inclusionary Housing Policy is drafted and adopted by council, all new residential or mixed use developments of 10 residential units or more must include at least 20% affordable inclusionary housing." (SDF, 2016, p. 141)

On 21 Feb 2019, Council approved the framework mentioned immediately above, titled "Inclusionary Housing Incentives, Regulations and Mechanisms". Inclusionary Housing as introduced in this framework of is seen as a mechanism that would facilitate a move towards a more inclusive, efficient and effective City. The Framework provides requirements and conditions for inclusionary housing and details the different options available for implementing inclusionary housing. Importantly, a calculator has been developed to provide a basis for inclusionary housing proposals and negotiations between the Council and the private sector.

While the details of the framework and the calculator developed are available on the Joburg website⁴ it is summarized below.

Inclusionary housing is mandatory for any development application under the jurisdiction of the City of Johannesburg Metropolitan Municipality that includes 20 dwelling units or more. Different options (and associated incentives) are given for inclusionary housing that developers may choose from. In each option, a minimum of 30% of the total units must be for inclusionary housing. Developers who fall under the 20 unit threshold may still voluntarily benefit from the incentives, subject to meeting the requirements of each option.

The four options for inclusionary housing put forward in the approved framework are summarized as follows. Further detail is available in the framework itself.

Option	Description	Details	Incentives (summary)
Option 1	30% of Dwelling Units are:	Social Housing;	Increase in FAR equal to the total % of inclusionary housing (max 50% increase).
		or FLISP Housing;	
		or Housing with a rental cap: R2100 per month (2018 prices).	Increase in density (in du/ha) to accommodate the extra units. Parking reduction for inclusionary units.
Option 2	10% of the total residential floor area is made up of small units. At least 30% of total units in the development must be inclusionary housing.	Minimum: 18m ²	Increase in FAR to accommodate the 10% floor area for IH.
		Maximum: 30m ²	Increase in density (in du/ha) to accommodate the extra units. Parking reduction for inclusionary units.
		Average: 24m ²	
Option 3	20% of the total residential floor area is made up of units that are 50% of the average market unit size. At least 30% of total units in the development must be inclusionary housing.	Maximum: 150m ²	Increase in FAR to accommodate the 20% floor area for IH.
		Minimum: 18m ²	Increase in density (in du/ha) to accommodate the extra units.
Option 4	To the satisfaction (in writing) of City Transformation and Spatial Planning, City of Johannesburg		

Table 11: Summary of Inclusionary Housing Options

B2.3 Economic Nodes

The City of Johannesburg has been described as "a developmental local government" that aims to improve the quality of life of all its residents. Vital to this are its on-going urban

⁴ <http://bit.ly/joburgIH>

regeneration and renewal projects. Development nodes are identified and steps are taken to upgrade the area, supporting local business and encouraging economic and social development investments. There are two developed and detailed category of nodes which contributes vastly to the economy of the city. Priority Economic Nodes are areas that are recognised as existing as well as up-and-coming vibrant economic nodes that could substantially contribute towards the City’s economic growth and development goals. These areas require significant infrastructural upgrades and basic service delivery to unlock its inherent potential.

Spatial Logic of Priority Nodes

The Spatial Development Framework 2040 seeks for a compact polycentric urban form that is ideal for economic efficiency, social-economic inclusivity and connectivity. As one of the many means of achieving this urban form, the City of Johannesburg in consultation with its SDF nodal strategy and hierarchy of nodes classification, identified several priority nodes and integration zones that are instrumental to the progressive realization of this desired morphology. Map 7 illustrates the COJ priority Nodes in relation to the SDFs desired urban form.

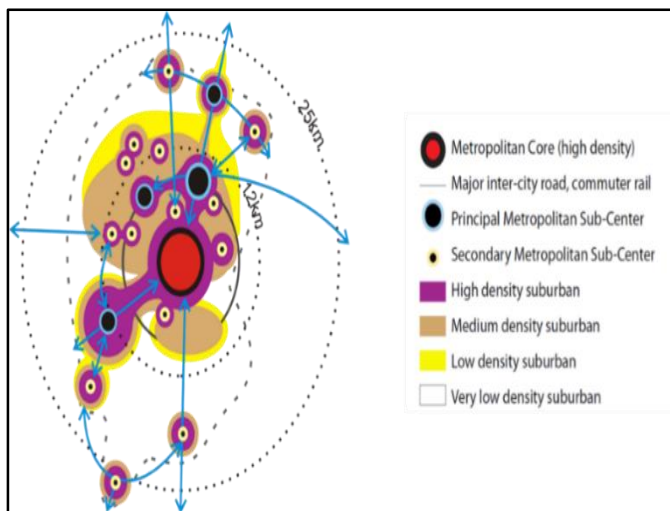
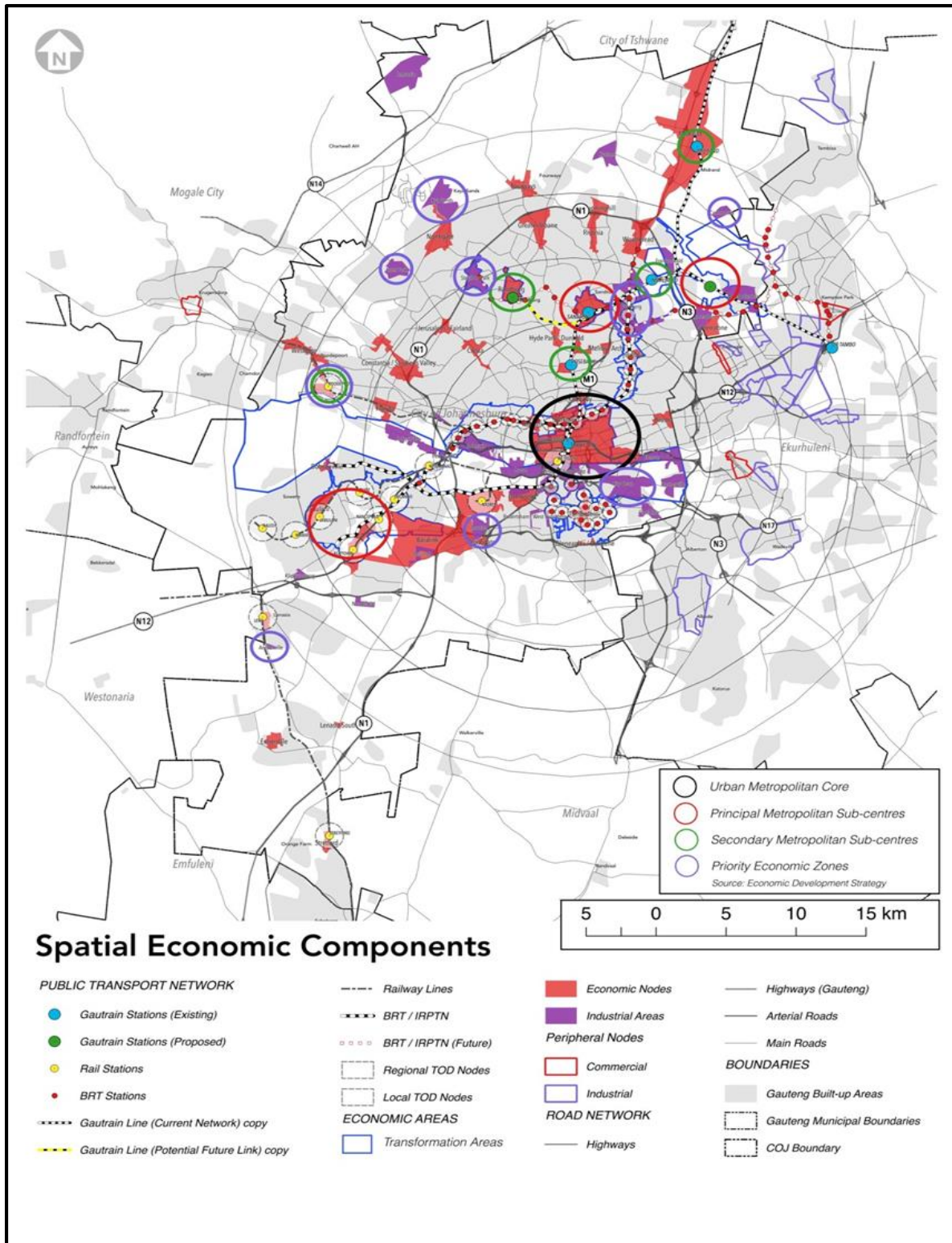


Figure 16: Desired Urban Morphology

Moving a level down from the spatial logic of the priority economic nodes, a host of studies, spatial analysis and GIS model builders have been done, that supplements the spatial logic and gauges the economic performance of the priority nodes based on a numerous suitability indexes and analysis that will be mentioned in detail in this section.



Map 16: City of Johannesburg Priority Nodes

City of Johannesburg Draft Nodal Review

The City of Johannesburg has recently embarked on a proposed review of its nodes in response to the SDFs assentation that a nodal review process is to be followed in which boundary changes and additions will be considered. The process will include urban modelling exercise and public participation on proposed nodal additions and/ or amendments.

The analysis will create an index, scoring all parts of the City in terms of Urban Potential and Connectivity. Those areas that score highest will inform the location of high intensity nodes, with those that score low indicating areas where development should be restricted. Importantly too, it is indented that a gradient of intensity is created across the City, to prevent high intensity development happening within nodes, and low intensity immediately outside them. A density and intensity gradient should be allowed, radiating outward from areas of high urban potential and connectivity.

The urban potential model will use a grid of 400m by 400m hexagons (easily walkable units) to create the index. Each hexagon will be given a local walkability score and a wider walkability score: of what can be accessed within 1km will include:

- Economic activity (the location of jobs and businesses);
- Public transit (train and BRT stations);
- Public open space;
- Social infrastructure (health, education, public facilities);
- Capital projects of the City;
- Infrastructure capacity (water, sewage and electricity); and
- Land use mix

The outcome from the proposed nodal review analysis will in addition gauge the economic performance of The City of Johannesburg Priority Nodes based on its urban potential and subsequently will justify the rationale of its spatial logic as a Priority Node. This grain and scale of analysis will provide good detail for developers and land use planners within the City to drive development where it will be most effective in meeting the goals of the SDF, and limit development where the opposite is true.

The nodal review will give a sound, city wide analysis of economic performance and development potential across the entire Metropolitan Municipality based on urban form (connectivity and accessibility, density). This grain and scale of analysis will provide good detail for developers and land use planners within the City to drive development where it will be most efficient and effective in meeting the goals of the SDF, and limit development where the opposite is true. The nodal review forms a strong part of the implementation and refinement process of the SDF. Based on thorough evidence based planning and public participation, the policy will sharpen the tools and focus of the SDF to manage growth in a sustainable and inclusive manner. It is intended that the policy will be completed in 2018 for adoption by council within the year, or in early 2019.

The nodal review policy will be used to ensure that areas of greatest potential are maximised through strategic intensification and mixed used developments particularly in areas that are well located.

Economic Development Strategy for the City of Johannesburg.

The City of Johannesburg has a recently approved Economic Strategy which is anchored on five dimensions, including:

- Industrial transformation
- Spatial transformation
- Global identity transformation
- Competitive market transformation
- Institutional transformation

The broad economic strategy is progressing through more detailed, spatially targeted plans in consultation with Development Planning and other departments in the city. The success of these plans is vital in transforming Johannesburg into a spatially just city. These plans, along with the nodal review that will follow this SDF, will identify key areas of economic growth potential or need, and put in place mechanisms to accelerate job creating economic growth. Importantly too, these plans will look to support Small, Medium and Micro-sized Enterprises (SMMEs), including those in the informal economy.

The City's current economic development blueprint is the *Fifteen Point Economic Development Plan of 2014*. The Plan has the 2011 *Joburg 2040 City Vision* as its foundation and is informed by the *City Economic Development Strategy of 2008/2009*, and the *City Economic Transformation Policy Framework of 2011*. The Plan is also informed by National and Provincial imperatives, policies, and plans including the *National Development Plan* and *New Growth Path*.

Johannesburg's 15 Point Economic Development Plan (2014)

AGENDA 1: Improving Overall Competitiveness of the City

- Benchmark City processes and efficiencies against competitors and target best practice benchmarks.

- Fast-track City decision-making on portfolio of key economic projects
- Ensure effective research, intelligence gathering and investment decision making criteria in identifying and prioritising City expenditure.
- Include community co-production of goods and services for the City to create jobs and incomes and incubate new business.

AGENDA 2: Undertaking an Industrial-Spatial Economy Programme

- Ensure complete suppliers to regional and local commercial markets. (Sufficient volume for cluster formation and value addition) Initial focus “Green Economy”.
- Improve City regulation for Green Economy, buildings, housing and infrastructure.
- Focus economic development initiatives on specific value-chains and linkages across value-chains.
- Adopt a sector strategy/investment portfolio approach to spatial planning and release of zoned land.
- Establish a long-term investment strategy and financing mechanism -early stage and development financing partnerships.

AGENDA 3: Improving Role-player Accountability and Implementation

- Ensure interventions accommodated by MFMA and procurement and SCM strategy.
- Seek co-management of interventions with key economic stakeholders.
- Develop joint programmes with universities, HEI’s, science / technology centres in Joburg.
- Strengthen economic strategy coordination across City Depts. and entities.
- Ensure active City-Business forums: senior-level participation and focus on key-project portfolio.
- Establish Competitiveness

Five strategy interventions to achieve *breakthrough* in economic development

1. *Service Delivery for Business*
2. *Creation of Priority Economic Zones in the City.*
3. *Creation of Business Clusters in Priority Sectors and Areas.*
4. *Fast-track Decision Making for Large, Job-Creating Investments.*
5. *Establish Additional Small and Medium Size Enterprise Hubs in the City.*

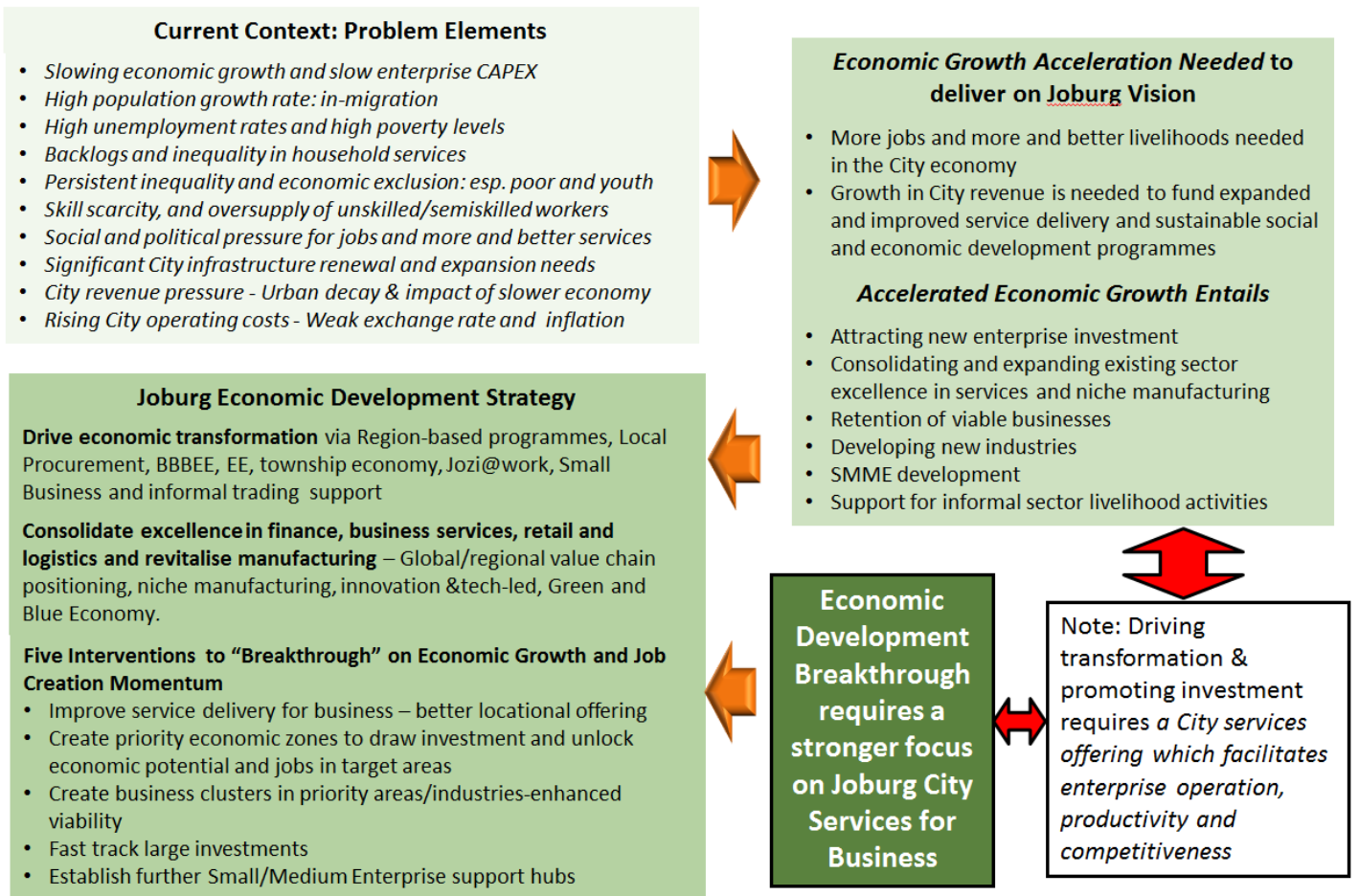
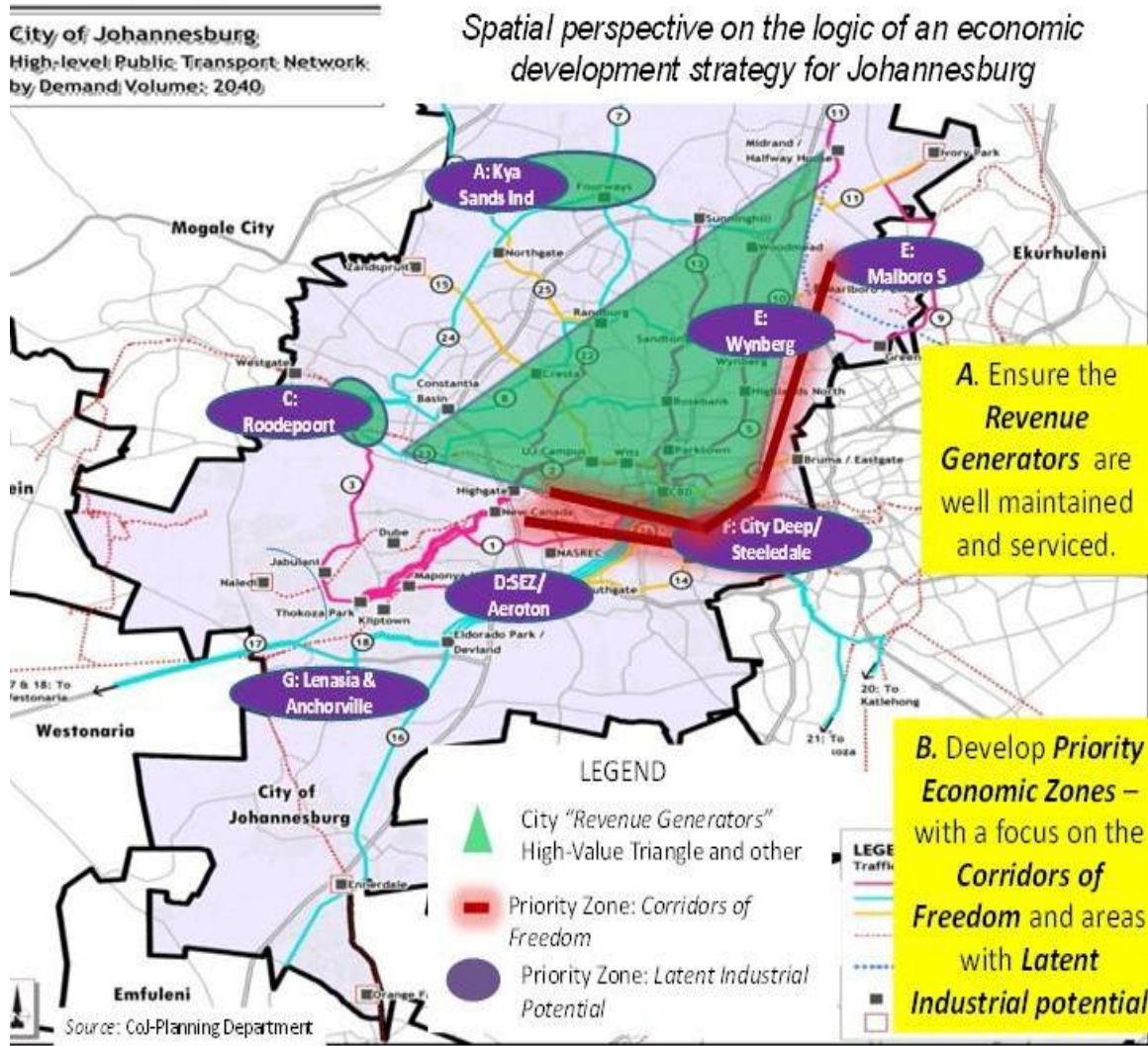


Figure 17: Five strategy interventions to achieve breakthrough in economic development



Map 17: Spatial perspective on the logic of an economic development strategy for Johannesburg

Planning for priority spatial targeting areas

The planning for the spatial targeting areas is a crucial point of planning in the city of Johannesburg

The SDF 2040 as a metro-wide spatial policy identifies main challenges and opportunities in the city. These include marginalised (deprivation areas) residential areas, informal settlements and economic nodes. In addressing the aforementioned challenges, the city wide strategy contained in the SDF 2040 caters for priority precincts, economic nodes, deprivation areas and informal settlements within and outside the integration zones by responding to the mayoral objectives, particularly the following objectives:

1. Promote economic development and attract investment towards achieving 5% economic growth that reduces unemployment by 2021
2. Ensure pro-poor development that addresses inequality and poverty and provides meaningful redress

Assessing climate risks and vulnerability in specific City of Johannesburg corridors

Since the late 1990, transit oriented and corridor development have been key features of cities seeking to reform their struggles with economic, social and spatial exclusion, as well as increasing traffic congestion and environmental concerns (Croese, 2016) .The University of the Witwatersrand and the City of Johannesburg Planning Department completed a study in 2018, funded by the Agence Francaise Development (AFD) to assess socio-economic benefits that can be realised from the Johannesburg corridors. Following that study, more funding is required to assess climate risks and vulnerability in each of the five corridors. These corridors are namely Louis Botha Development Corridor, Empire Perth Development Corridor, Turffontein Development Corridor, and Soweto Development Corridor.

B3. STRENGTHENING CREDIBLE PUBLIC TRANSPORT AND HOUSING PLANS AND THEIR ALIGNMENT WITH ONE ANOTHER AND SPATIAL TARGETING AREAS

The Transit Orientated Development Corridors, undertaken by the city of Johannesburg is seen as one of its many mechanisms in restructuring the city into a strong dense integrated economic centre that has been mandated by the SDF. The TODs achieve this principle by aligning institutional development framework policies such as the “Sustainable Human Settlement Urbanisation Plan” with public transportation strategies. The TOD strategy ensures that high density residential developments are located in close proximity to public facilities, jobs and social amenities. The Inclusionary Housing Policy (see page 79) will assist to incentivise more affordable housing units in these strategically located areas.

B3.1 Patterson Park

Patterson Park catalytic project is a prime example of a combination of social services, public amenities and inclusive housing developments that are integrated along major transit routes and public transport facilities. The Patterson Precinct is a catalytic project within the Louis Botha integration zone and has the potential to demonstrate a mixed income, higher density urban typology with accessibility to job opportunities and social amenities not just from a local scale, but also a regional and city scale.

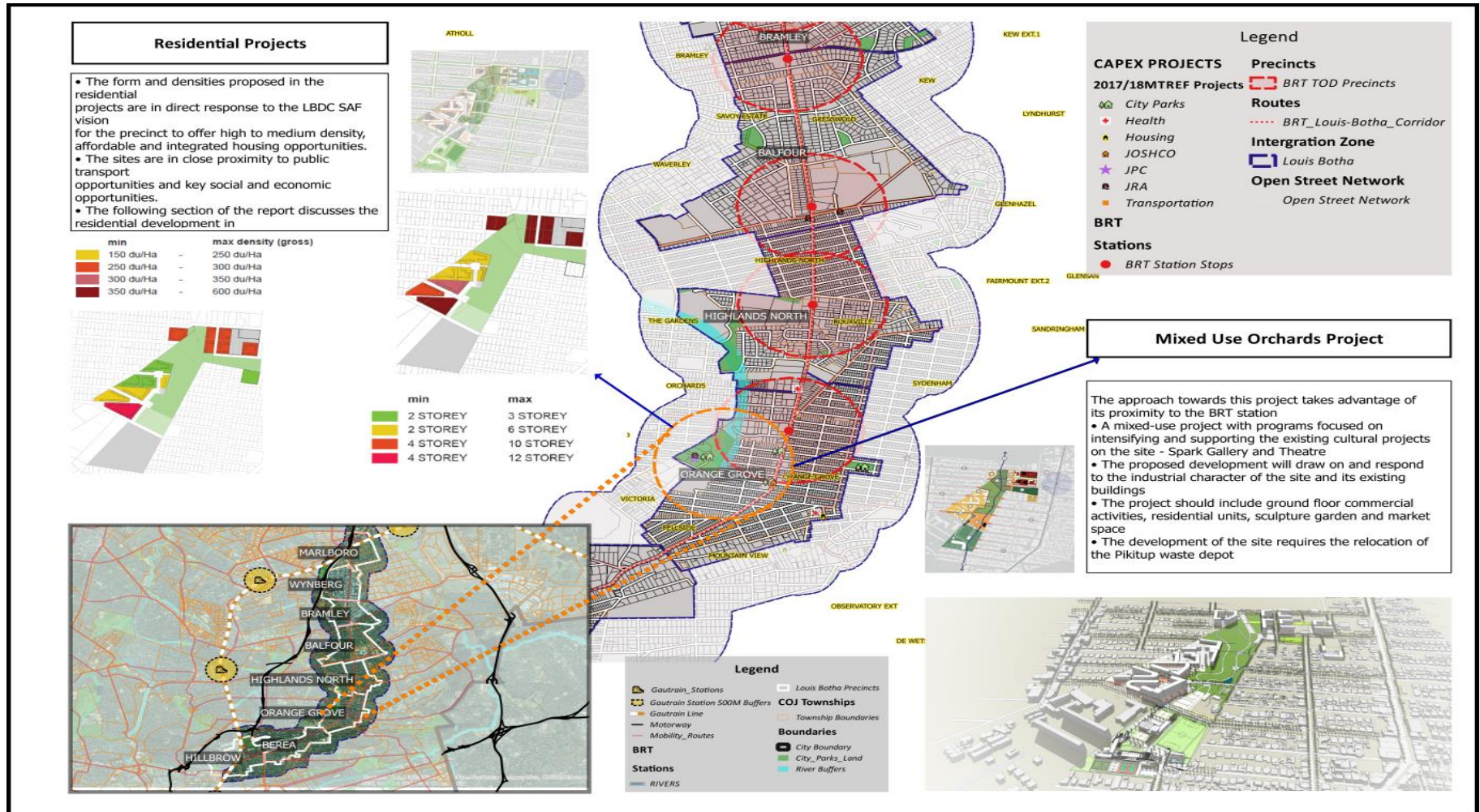


Figure 18: A Diagram representing Patterson Park Project

B3.2 Integrated Public Transport Network

Since 2003 Johannesburg has made a concerted effort to develop transport and land-use plans that support the spatial restructuring and integration of the city. It has sought increased densification of corridors and nodes, and aimed to attract new developments around public transport infrastructure, particularly Rea Vaya and Gautrain as well as Metrorail stations.

Transit Oriented Development (TOD) was formally adopted as a planning strategy in 2008 and received increasing momentum with the Transit Orientated Development Corridors (ToD) initiative in 2013. The Empire/Perth, Louis Botha and Turffontein corridors have been prioritised for corridor development.

The Sustainable Human Settlement Urbanisation Plan (SHSUP) approved by Mayoral Committee in 2012 is a plan to accommodate an additional one million households based on current backlogs and future demographic projections. The plan recognises a role for both formal and informal housing in meeting this demand. It provides strategies for residential densification, and possible locations for future housing development. The Spatial Development Framework approved in 2016 continues to prioritise development along public transport corridors and key nodes with a focus on:

- Strengthening the Metropolitan core, the CBD as a dense economic core of the City;
- Empire/Perth corridor from Soweto to the CBD prioritising nodes at PRASA and Rea Vaya stations including Orlando, Westbury, Melville (UJ) and Auckland Park;
- Louis Botha corridor from the CBD to Alexandra prioritising nodes at Paterson Park, Bramley and Alexandra/Marlboro;
- Turffontein corridor from the CBD South prioritising the area around Rotunda Park and South Hills;
- The “mining belt” from Roodepoort through to City Deep to integrate the north and south of the City;
- An “Aeropolis Corridor - east/west corridor from OR Tambo airport, to be developed through the developed Modderfontein Site, Linbro Park, Alexandra, Wynberg, Sandton and Randburg.

The efforts to restructure the City over the last decade have been slow to bear fruit. Private investment in the form of densification, urban renewal, redevelopment and new infill development has been taking place in the public transport nodes and corridors, but mainly in the north of the city - the Johannesburg CBD, Rosebank and Sandton, and the Gautrain stations in these areas have been attracting very large private sector developments.

The SDF now gives greater development rights to areas immediately around all BRT, PRASA and Gautrain stations (500m walking distance from the stations). This is intended to increase density around stations, increasing ridership and making them more viable, and more importantly, giving more people walking access to public transit infrastructure. This in turn gives residents of the city quicker and more affordable access to jobs, amenities and services.

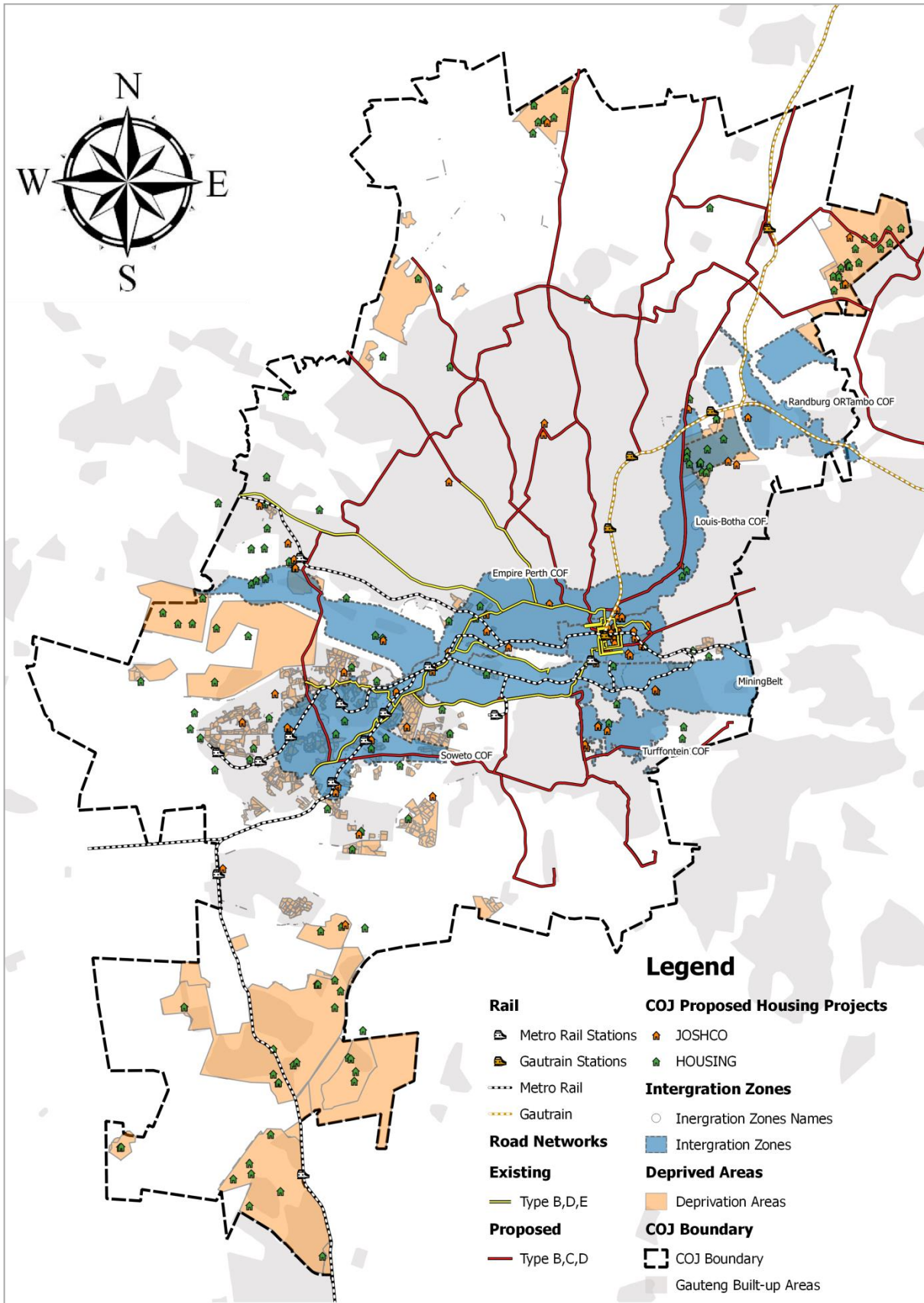
Investment along BRT routes is not as intensive as that being stimulated around Gautrain stations. Evidence is emerging however that more and more development rights are being taken up, especially in the Louis Botha Corridor. Various mechanisms are in place to accelerate this

growth such as the special development zones in Orange Grove and Brixton. Added to this is a drive by land use planning to expedite development and rezoning applications in the Transit Orientated Development Corridors (ToD) formerly Corridors of Freedom.

The SDF is also looking to prevent car oriented sprawl on the outskirts of the City. The Spatial Planning and Land Use Management Act (16 of 2013) and a constitutional court judgement of 2010 now give municipalities the sole function of making land use decisions. It is anticipated that this will give Johannesburg more control in directing development into core areas of the city, and indeed to transit nodes. A vast disparity remains in terms of growth in the north versus the south of the city.

The city centre has densified dramatically to nearly 39 000 persons/km². Demand for housing there has steadily increased and now outpaces supply. There is in fact considerable overcrowding in particular neighbourhoods. This is a positive development for transport as it is centrally located in relation to travel destinations.

The Transit Orientated Development Corridors (located within Transformation Zones) is one of the few instruments that the city holds that has as one of its intentions to align housing developments and public transport. The city's housing strategy supports the SDF in ensuring that programmes deliver the range of housing typologies in the areas identified for residential densification. The location of future housing developments to meet the demand across socio-economic categories should be located close to urban amenities, including economic activity, public transport and jobs. As such the SDF defines the Transformation Zone as the primary focus for public and private delivery of large-scale housing developments in the City, whereas housing development in the Consolidation Zone is subject to a range of conditions to ensure sustainable development takes place.



Map 18: Proposed Housing and Transportation Routes

B3.3 Integrated Transport Planning

The primary objective of the Integrated Transport Network (ITN) Plan is to define a long term transport network that incorporates, on an integrated basis, all modes of transport including public transport, private transport (freight and private cars) and non-motorized transport.

This network plan can then guide investment decisions, operational planning, transformation initiatives and budget required in the short, medium and long term. The plan caters for a wide range of demand realities and can be flexible over time – as demands change and more resources may be available for greater changes in the transport network. However it still ensures rapid transit over long distances to address our apartheid spatial legacy which has created long travel times.

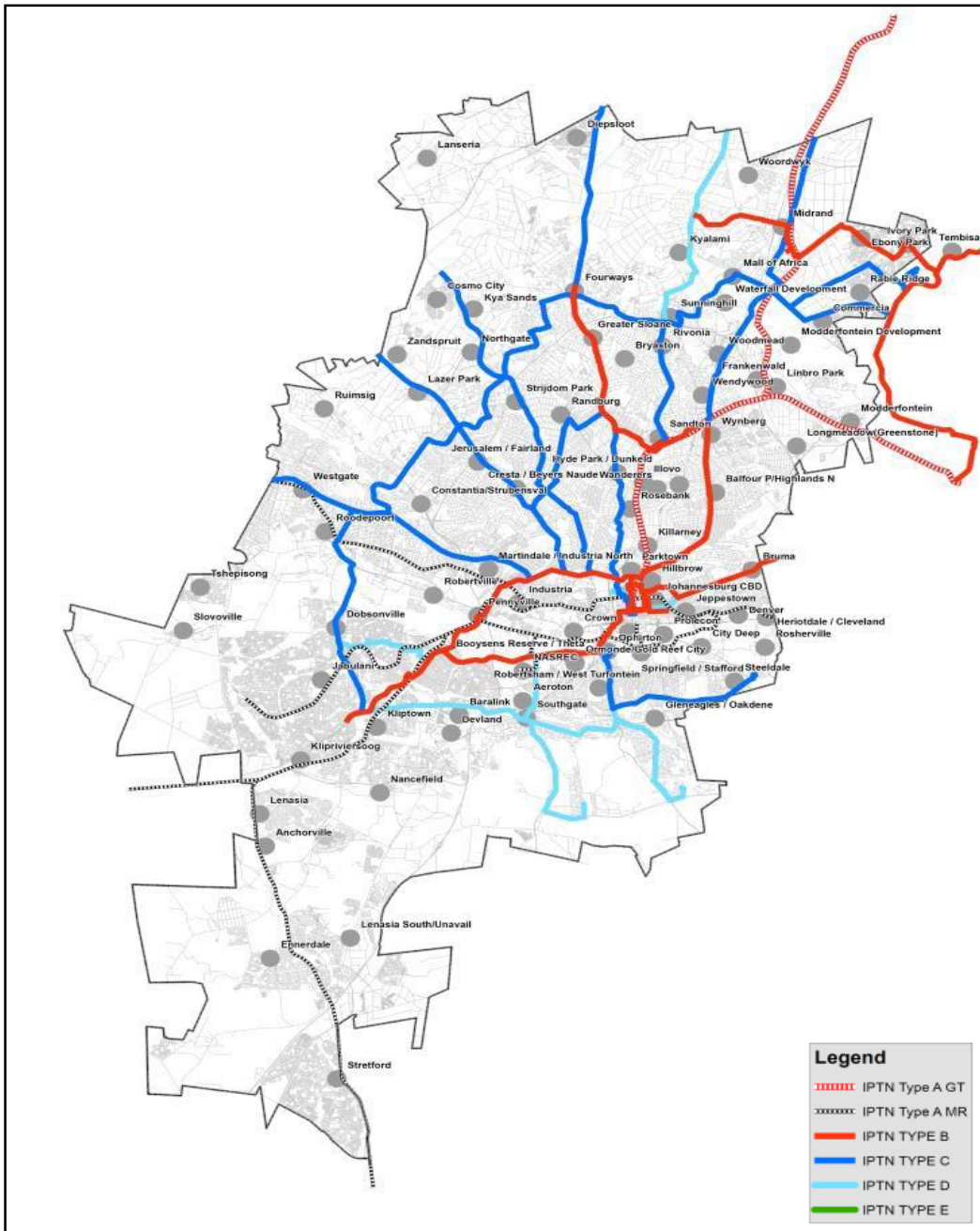
In defining the below Strategic Network and determining modal choice, consideration was given to:

- Employment and population projections;
- Present and future demand;
- Redressing spatial inequality; and
- Present and future land use.

It was also assumed that new development zones of huge growth would have a high (65%) public transport usage; and that the overall higher densities in the city and focus of development along public transport routes would change the trip length distribution previously assumed in the model. The model was adjusted to change the distribution of trip length, resulting in a mean modelled trip length of 19km.

The public transport morning peak hour demand is predicted by the modelling to total some 617,000 passengers in 2040, compared to 298,000 in 2010. Public transport demand in Johannesburg is thus projected to more than double over the next 25 years.

Map 17 below, shows the major routes and corridors for 2025 network as per the network hierarchies.



Map 19: SIPTN 2025

The City’s intention to create an Integrated Transport Network, where each mode is assigned an appropriate role, requires a very well-regulated system with a significant degree of control. With the Integrated Transport Network plan, the City is in a strengthened position to act as a transport authority, being able to determine which routes can be operated by which modes to ensure that there is an integrated transport provision and advise the PRE, PRASA, and GMA accordingly.

MODE CATEGORIES	TYOLOGY	DEMAND	MODE	FUNCTION AND FEATURES
Rail Public Transport Network	SIPTN-Type A	9000-15000	Gautrain, Metro Rail	<ul style="list-style-type: none"> To move people quickly from area of high residential to areas of employment/income opportunities Limited stops. (closed stations)
Rapid Road Public Transport Network (High Capacity)	SIPTN-Type B	6000-9000	Bus Rapid Transport, Light Rail	<ul style="list-style-type: none"> Corridors of Freedom, mixed use development, three story residential To move people quickly from area of high residential to areas of employment/income opportunities Limited intersections and right turns so buses can be relatively speedy Limited mostly closed high or low floor stations
Road Public Transport Network (Medium Capacity)	SIPTN-Type C	3000-6000	Bus Rapid Transport	<ul style="list-style-type: none"> Corridors of Freedom and areas where the City wants to densify along the corridor Mixed use development, Three story residential, social housing along corridor. Fairly frequent closed and opens low floor stations and some stops
Road Mixed Traffic Public Transport Network (Medium to Low Capacity)	IPTN-Type D	1000-3000	Bus (Double Decker, Standard)	<ul style="list-style-type: none"> Frequent stops with shelters Some public transport priority On street stopping by public transport vehicles Low to medium density
Road Mixed Traffic Public Transport Network (Low Capacity)	IPTN-Type E	500-1500	Bus (Standard, Mini bus)	<ul style="list-style-type: none"> Frequent stops with lay byes and shelters Low to medium density
Road Mixed Traffic Public Network (Demand Driven)	IPTN-Type F	<500	Bus, Taxi, Demand responsive (e.g. e-hailing)	<ul style="list-style-type: none"> Low to medium density Mostly stops or e-hailing

Table 12: proposed IPTN Hierarchy

B4. PRECINCT PLANNING

According to the BEPP guidelines, Precinct Planning follows on from the identification of Integration Zones and the confirmation of prioritised TOD precincts within these zones and more specifically within the spatial structuring elements of the zone. They are the basis for project identification, project pipelining or programming and project preparation. For this purpose the CBD/inner city will be used to elaborate the concept of precinct planning.

The inner city of Johannesburg is located within the city's Region F. The inner city encapsulates the identity of Johannesburg in the minds of travellers and investors. The inner city has six very different sectors, Joburg Town, the CBD still home to corporates and the main shopping area; Diagonal Street, Braamfontein to the north, home to Wits University, the Nelson Mandela Bridge and an office mecca; Newtown, close to the city is the cultural and musical heartbeat; Fordsburg to the west is home to the Asian quarters; The Fashion District to the east, incorporates Jewel City; Maboneng Precinct which is on the eastern edge, is the art sector and lastly Ellis Park, the famous rugby stadium, is surrounded by the still to be upgraded areas of Hillbrow, Berea, Doornfontein, Bertrams and Troyville.

The inner City also functions as an important residential neighbourhood. It is extremely diverse with areas ranging from severely degraded residential areas such as Bertrams, to the somewhat stable commercial area of Braamfontein. Covering 7 million m² of floor space and 3 million m², the inner city is a just part of the sum of the City of Johannesburg as a whole. Johannesburg has always been at the centre of innovation, dynamism, vibrancy, and cultural exchange. The

inner city is a key driver of development in the city. It is therefore an asset that the country cannot afford to let waste.

Inner City challenges:

The Inner City has faced significant challenges over time. Among these are over-crowding and lawlessness, with residents falling victim to property hijackers and slumlords. Other developmental challenges include:

- An uncontrolled influx of people in the Inner City
- Illegal dumping
- A housing backlogs
- A rise in illegal occupation in key residential areas
- Urban decay
- Shortage and poor maintenance of social amenities (clinics, recreation centers and sporting facilities)
- Traffic congestion in the CBD
- Rise in hijacking of buildings
- Street trading

The City is however, focused on tackling these challenges and developing the inner city into a centre of economic development and growth through the Inner City Revitalisation Programme.

Strategic location

The inner city is positioned in an economically valuable part of the city. It is strategically located in an area with high rental apartments, business centres, and major transportation and communication nodes. In addition, the inner city provides marginalised communities – particularly from the south of the inner city - an entry point into the formal economy. It is home to the Gauteng Provincial and Johannesburg Metropolitan governments, and to some of the most established businesses in the country. Johannesburg inner city is a hive of diverse economic activity, close to transport nodes, schools, places of work, entertainment and shopping. It also boasts the biggest transport node in Africa, with trains, busses and up to 4 000 taxi's bustling through the city on a daily basis culminating at centres such as Park Station and Ghandi Square.

Transport

The inner city is the major public and quasi-public transport hub in Johannesburg, with over a million people travelling into the inner city every day to work, trade, conduct government business, and onward travel. Johannesburg's inland port, the largest in Africa and fifth-largest in the world, handles 30% of the country's exports

Infrastructure

The inner city has a large asset base, with much of its service infrastructure under-utilised and in decline. The inner city is rich in cultural, sporting and heritage assets, including some of Johannesburg's most important facilities and venues, such as the University of the

Witwatersrand, the Civic Theatre and Ellis Park stadium amongst many others. The city is an outstanding investment destination, offering the best access to markets across Africa, an investor-friendly environment, a stable democracy as well as excellent telecommunications and road infrastructure.

Economic Generator

The inner city is the heart of the city, and its image, vitality, success and well-being are representative of the whole of Johannesburg. It is often viewed as being a significant incubator and location for small medium micro enterprises because of its role as an economic generator and vibrant retail and trade centre. Joburg’s economy has recorded consistently high growth rates and has been a net creator of employment, with all the large banks, insurance companies and many Information and Communications Technology companies located in the inner city.

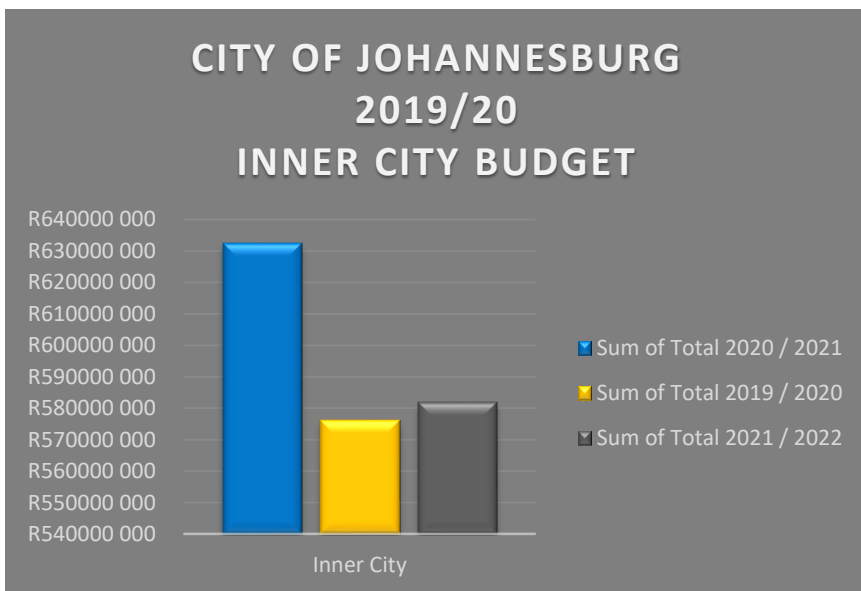


Figure 18: Budget allocation for the Inner-city.

The inner city revitalization is being prioritized to restore the core of Johannesburg, and stimulate economic activity in the hub of the South African economy, the budget allocation as per the graph above illustrates how much funds will be spend in 2019/20- 2021/22 MTREF. In 2019/20 financial year the City will spend is approximately R R632 243 991which is 8% of the total capital budget.

It is in this regard that the City continues to focus on addressing the scourge of hijacked properties and lawlessness. The City is building from the initiatives embarked on in 2016/17 financial year including the appointment of 1500 JMPD recruits; the improvement of cleaning levels especially in the Inner City; functional road and traffic signage and increasing the number of building and environmental health inspectors. Law enforcement still needs to be strengthened in outdoor advertising, vandalism and theft of the City’s infrastructure, and bypassed meters. The City has elevated the levels of service delivery through extending operating hours in clinics and libraries; capacitation of the Johannesburg Roads Agency amongst others. Through the

Group Forensic Investigation Services, we remain committed to effectively dealing with corruption and fraud.

B5. INSTITUTIONAL ARRANGEMENTS

Interventions by the City on Climate Responsiveness and Resilience in spatially target areas.

The City of Johannesburg through Johannesburg City Parks and Zoo (JCPZ) is currently a member of the World Urban Parks. The City was also appointed as a board member representing Africa in the World Urban Parks and Chair of the Emerging Cities of the World from 1 September 2018 for a period of five years. World Urban Parks champions urban park outcomes for city liveability, place-making, conservation and access, and provides strong membership services by connecting, leveraging and supporting diverse memberships across the international urban parks, open space and recreation community and allied sectors. The board membership status of the JCPZ indicates that the City is being recognized as an international player in the parks management space and a leader in Africa. As such, JCPZ has used its position to amplify the voice of African cities and parks organizations in order to ensure that they are unified in shaping the global urban greening agenda.

In October 2018, The City's Executive Mayor Cllr. Mashaba received a delegation from the C40 Cities Climate Leadership Group led by the C40 Regional Director for Africa, Hastings Chikoko. The Mayor emphasised the importance of addressing climate change as a way of improving the living standards of the city's residents. Citing solid waste management as an example, the Mayor pointed out that he is committed to engagement with city residents on solid waste collection because a clean city does not just mean a clean and beautiful city but improved health for the urban residents. The C40 Regional Director pledged continued support to the city in the areas of solid waste management, adaptation to climate impacts (including flooding), energy efficiency, green buildings, improved mobility and urban planning. C40 is focusing on inclusive climate action to ensure that climate change action also creates jobs, improves household income and bridges inequality. Two experts deployed to the City to strengthen the City's capacity in climate change, fully paid for by C40. This support includes the improvement of the city's Climate Action Plan to ensure that it integrates all sectors in the city and aligns with the Paris Agreement.

SECTION C: CATALYTIC URBAN DEVELOPMENT PROGRAMME PREPARATIONS**C1. CATALYTIC URBAN DEVELOPMENT PROGRAMME & PREPARATION****C1.1 Catalytic Urban development programme****C1.1.1 Intergovernmental Project Pipeline**

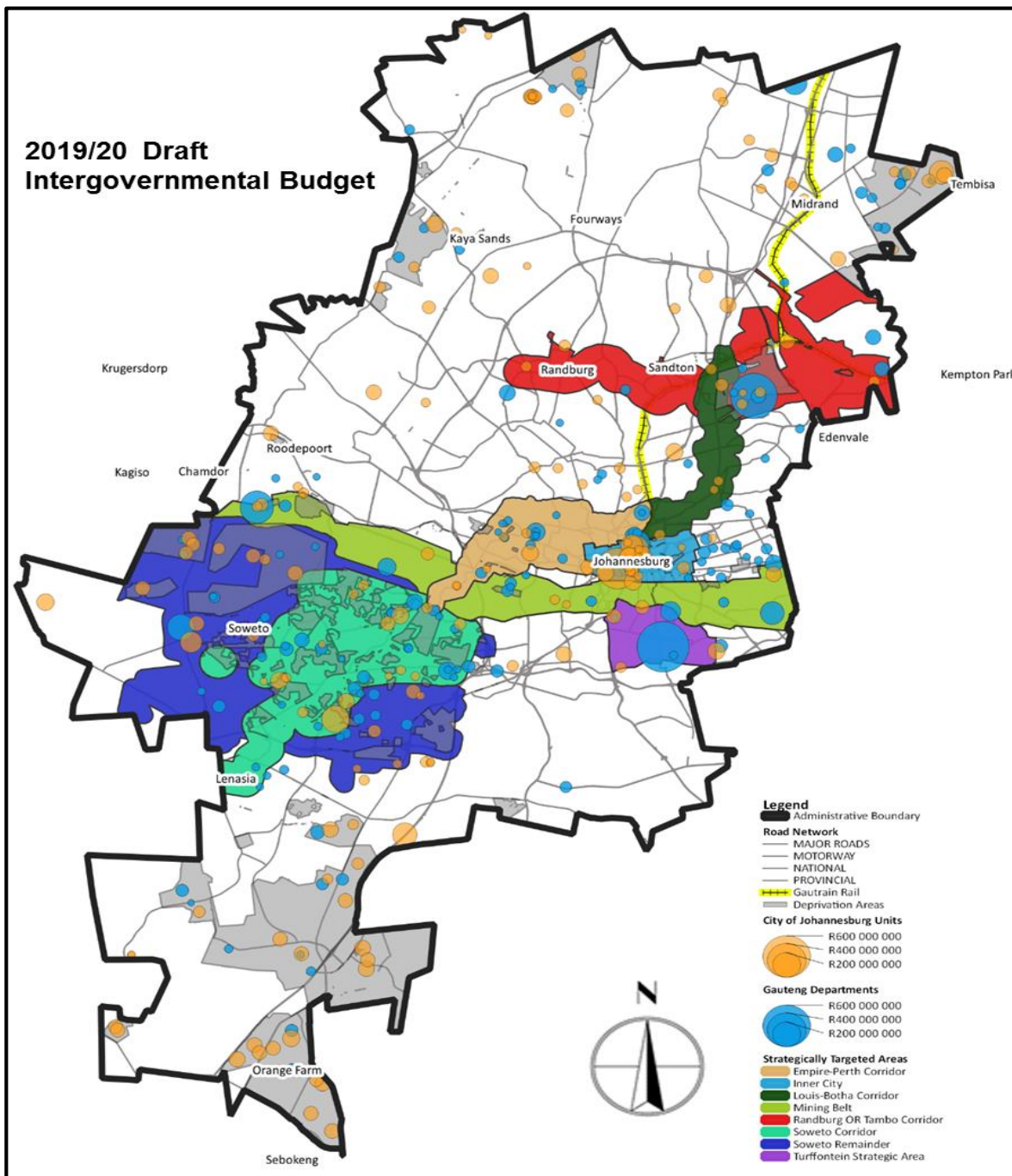
The City of Johannesburg's core objective is to ensure that the implementation of intergovernmental projects by all spheres of government result in sustainable development. Gauteng Provincial Government is using the Infrastructure Reporting Model (IRM) to implement their infrastructure projects, which are reported to the Gauteng provincial Treasury. The Provincial Treasury has taken provincial budgeting a significant step towards significant integration of provincial budgets in order to achieve provincial outcomes. This model has benefitted CoJ in that it has facilitated access to more provincial budgets and has begun a process of budget mapping. This has resulted in the City establishing a relationship with the Province for joint planning, budgeting and implementation of projects which benefits both Province and the City.

The Provincial government has included their MTEF 2019/20-2021/22 planned projects across the following sectors:

- Education
- Health
- Human Settlements
- Infrastructure Development
- Roads and Transport
- Social Development
- Sports, Arts, Culture and Recreation

The national government pockets are shrinking and there is a nationwide call for government departments at different levels, along with cities/ municipalities, to work together to prevent wasteful expenditure. Maps 18 & 19 (*Intergovernmental Projects*) below illustrate all the projects that the City of Johannesburg and Gauteng Provincial Government have allocated draft budget to for execution. The alignment of draft budgets shows intergovernmental co-ordination between the City and Province in planning and implementation of projects to avoid wasteful expenditure. Engagements with National Department of Public works (DPW)

The City is having ongoing engagement with the National Department of Public works with regard to national social facilities such as Magistrates Courts, Home Affairs Offices and leasing of buildings. DPW has advised the city to identify priority precincts outside the Inner City, and the city chose Soweto, particularly Orlando East where DPW can intervene. No commitment has been made to date.



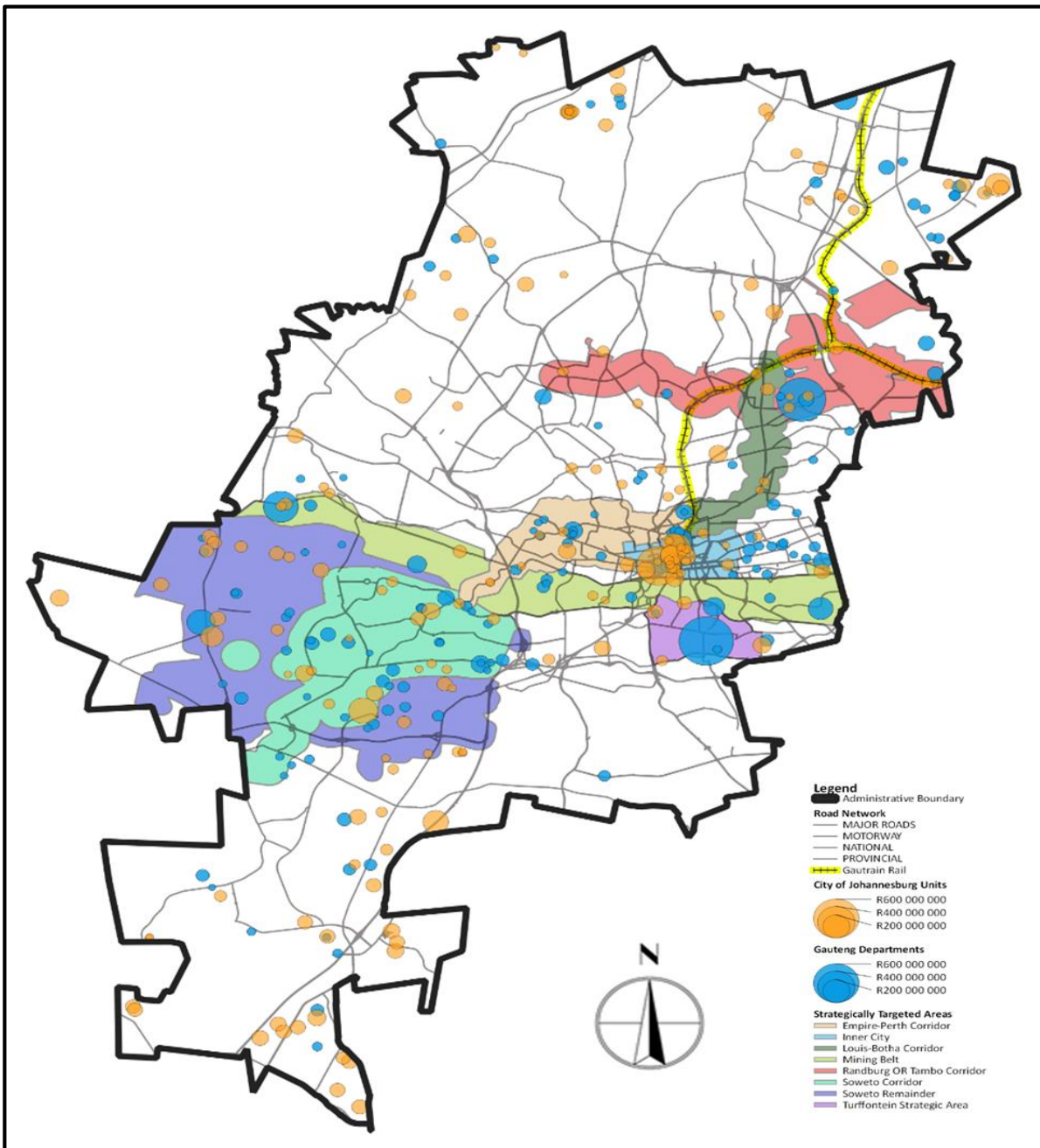
Map 20: Intergovernmental Projects city wide

The City along with Gauteng provincial department will be investing approximately R 5 million in 2019/20 financial year. The map outlines that both city and provincial government are working together to realise the objectives of the city’s spatial vision. Most capital budgets are spend in Spatially Targeted Areas such as the Deprivation Areas, TOD corridors and Informal Settlements. This is to improve the quality of life of the citizens, connectivity, and sustainability of the city. In brief, the Gauteng Province Capital Budget allocation and spending is aligned with both national and the city’s strategic growth objectives and spatial plans. Thus, there is intergovernmental relations when it comes to capex allocations and spending between the two

spheres of government. The detailed budget represented on map18 is summarised in the table below.

Gauteng Provincial Departments	Within Spatially Targeted Areas	Outside Spatially Targeted areas	2019/2020_TOTAL
Agriculture and Rural Development	R 14 931 000	R -	R 14 931 000,00
Education	R 635 386 193	R 128 426 924	R 763 813 117,06
Health	R 354 486 109	R 34 647 477	R 389 133 585,88
Human Settlements	R 1 492 780 000	R 265 969 000	R 1 758 749 000,00
Infrastructure Development	R 57 077 760	R -	R 57 077 760,00
Roads and Transport	R 318 045 000	R 715 510 000	R 2 033 555 000,00
Social Development	R 8 200 000	R -	R 8 200 000,00
Sports, Arts, Culture and Recreation	R	R -	R -
Grand Total	R 3 880 906 062	R 1 144 553 401	R 5 025 459 462,95

Table12: Gauteng provincial departments' investment in CoJ for 2019/20



Map 21: Budget for supporting Housing department for the creation of Human Settlements⁵

The map outlines that both city and provincial government are working together to create sustainable human settlements in the city. Most capital budgets are spend in well located areas such as the TOD corridors in order to provide affordable housing and to ensure that people reside closer to places of work. This in turn means that travel time and cost to in between places of work and home will be reduced, and also carbon emissions, whilst the city will also become inclusive and there will be range of affordable housing to choose from. In brief, the Gauteng Province prioritisation for sustainable human settlements purposes is aligned with both national and the city’s strategic growth objectives and spatial plans. Thus, there is intergovernmental

⁵ Housing that considers parks, schools, cemeteries, clinics etc.

relations when it comes to prioritisation of projects for provision of sustainable human settlements between the two spheres of government.

Engagements with Gauteng Provincial Governments

The Gauteng Office of the Premier has offered to assist the three Metropolitan municipalities namely City of Johannesburg, City of Tshwane and City of Ekurhuleni with regard to joint planning with the Gauteng Provincial government Gauteng Metropolitan municipalities. The purpose is move away from sharing of intergovernmental pipeline projects to joint planning which must happen from project identification to project implementation. Terms of Reference with Gauteng Office of the Premier for the Tri-Metro (namely City of Johannesburg, City of Tshwane and City of Ekurhuleni) joint planning task team/committee to ensure that the set goal of interactive joint planning materialises. The Terms of Reference binds the Heads of Planning units within the Metros to ensure amongst other things joint planning of cross-boundary projects from project initiation until completion takes place. There are ongoing engagements. (See *Annexure D for evidence*).

The City has an agreement with Gauteng Department of Roads and Transport in respect of the management of the subsidised bus contracts in the City. The National Land Transport Act (Act 5 of 2009) regards the cities as “Contracting Authorities” which then means that the Province cannot on its own contract the Bus Operators in terms of this legislation, hence this Intergovernmental Authorisation Agreement, see *Annexure D for the Agreement*.

The Johannesburg Social Housing Company JOSHCOC Limited is mandated to provide and manage affordable rental housing for the lower income market as an integral part of efforts to eradicate the housing backlog of the City. JOSHCO is in receipt of grants from Social Housing Regulatory Authority (SHRA) as well as subsidy from Gauteng Department of Human Settlements for financial assistance in delivery for social housing. (See attached Annexure D for the agreements)

Engagements with PRASA

The City is having on going engagements with PRASA through the IPC on various projects around public transport. There was an engagement with PRASA in relation to SIP 7 with Development planning. The reason for engagement was to establish relations and understand where each department is in terms of planning and how they can move forward together with CoJ for joint planning.

C1.2 Catalytic Urban development programme resourcing

a. City-wide perspective of the Intergovernmental project pipeline

There are numerous City-Wide projects that seek to achieve the Mayoral objectives (see *Table 12: City wide catalytic projects*) and spatial focus areas guided by the City’s strategic vision contained in the SDF 2040.

PROJECT NAME	DIVISION	PROJECT TYPE	ESTIMATED TOTAL COST TO THE CITY
Watt Street Interchange/ Great Walk (Louis Botha)	JPC	Infrastructure	R 95,000,000.00
Milpark (Empire Perth)	JDA/ Transport	Infrastructure	R 65,000,000.00
City Deep Hub	-	Feasibility study	R 4,000,000.00
Jabulani Mixed Use Node	JDA	Infrastructure	R 76,500,000.00
Nancefield Mixed Use Node	JDA	Infrastructure	R 136,233,000.00
Total			R 376,733,000.00

Table 12: City wide catalytic projects

b. SIP 2: The Durban-Free state – Gauteng Logistics and Industrial Corridor

This SIP is mainly designed based on location and aims to unlock the Durban, FS and Gauteng logistics and industrial corridor.

The City has put a budget aside for the redevelopment of the City deep in land Logistics Port in the medium term budget. However if this facility is to fulfil its potential as a key piece of economic infrastructure, significantly more investment will be needed, together with coordinated interventions from all relevant stakeholders. The champion for SIP2 within the City of Johannesburg is the Transportation Department.

c. SIP 7: Integrated urban space and public transport programme

This SIP is designed to address the spatial fragmentation caused by apartheid era which resulted in certain areas not having appropriate infrastructure services.

The SIP7 is of concern to the City. The champion for SIP7 in the City is the Development Planning Department. The policy that outlines the City's approach to this SIP as well as the City's approach to informal settlements and backyard shacks is outlined in: SHSUP, the City's Integrated Transport Plan (particularly through implementation of the Rea Vaya BRT bus network) as well as in the SDF. Presents the list of SIP projects as communicated to PRASA, which is the lead agent for SIP 7 on behalf of the PICC.

Mandate of SIP 7:

- Create sustainable urban settlements.
- Integrate land-use with public transport.
- Land-use corridor densification.
- Integrate previously separate and racially based settlements in 12 major urban areas.
- Housing densification, in filling and access to services.
- Provide viable mass transit and integrated public transport systems (reduce public transportation costs and time and promote green urban development)

- Accelerate infrastructure projects supporting sustainable urban settlements and associated bulk infrastructure

The table (Table 13) below outlines some of the mega projects that the city is currently undertaking under SIP 7.

PROJECT NAME	PROJECT IMPACT	ESTIMATE PROJECT COST TO THE CITY
Lufhereng Mixed development typology project	Sustainable Human settlement	R 1 000 000 000
Greater Kliptown re-development mixed typology project	Sustainable Human Settlement	R 500 000 000
South Hill mixed development typology project	Sustainable Human Settlement	R 200 000 000
Diepsloot Mixed development typology Project	Sustainable Human Settlement	R 600 000 000

Table 13: Mega projects for SIP 7

C2. Institutional Arrangements

Through the assistance of National Treasury, the three metropolitan Municipalities in Gauteng have established a tri Metro joint planning task team / or committee to establish ways of conducting interactive joint planning with Gauteng provincial departments. This is because Planning projects initiated at provincial level occur in the municipal space and often rely on provision of municipal engineering services, which then causes the Municipality to divert their basic engineering budget. Interactive planning with provincial departments will be of great value to both parties as they will be able to influence each other's budgets and plans, especially at the initiation phase, which will in turn address the issue of shrinking national budget envelop.

Intergovernmental project pipeline within the catalytic urban development programme

Institutional Arrangements

Various departments are executing planning and implementation of projects in the priority Spatially Targeting Areas. These departments are as follows:

- **Development Planning:** The department has a vision of a spatial form and functionality that embraces the principles of integration, efficiency and sustainability, and realises tangible increases in accessibility to amenities, opportunities and quality of life for all communities, especially the poor. The department is the key to spatial and settlement transformation within City of Johannesburg, thus it identifies and undertakes planning of projects to be implemented by the City, guided by the spatial direction of the City.
- **JDA:** Is responsible for project implementation on the ground on behalf of the City.
- **Finance Department:** The finance department is the engine providing strategic financial leadership to the City of Johannesburg, thus the department ensures there are funds available for the implementation of the project.
- **Engineering Departments (Internal/external):** Ensures that there is bulk infrastructure available to support the development and undertake maintenance thereof.

Institutional arrangements are dependent of the project type and the magnitude. Below is an example of an institutional arrangement which shows various departments that should work together to achieve the vision of the project. With ach project social development and urban management are the key focus. This figure 19 shows how projects programmes according to relevant departments and advocates for the inclusion of private sector players.

An example of the City generic institutional arrangement

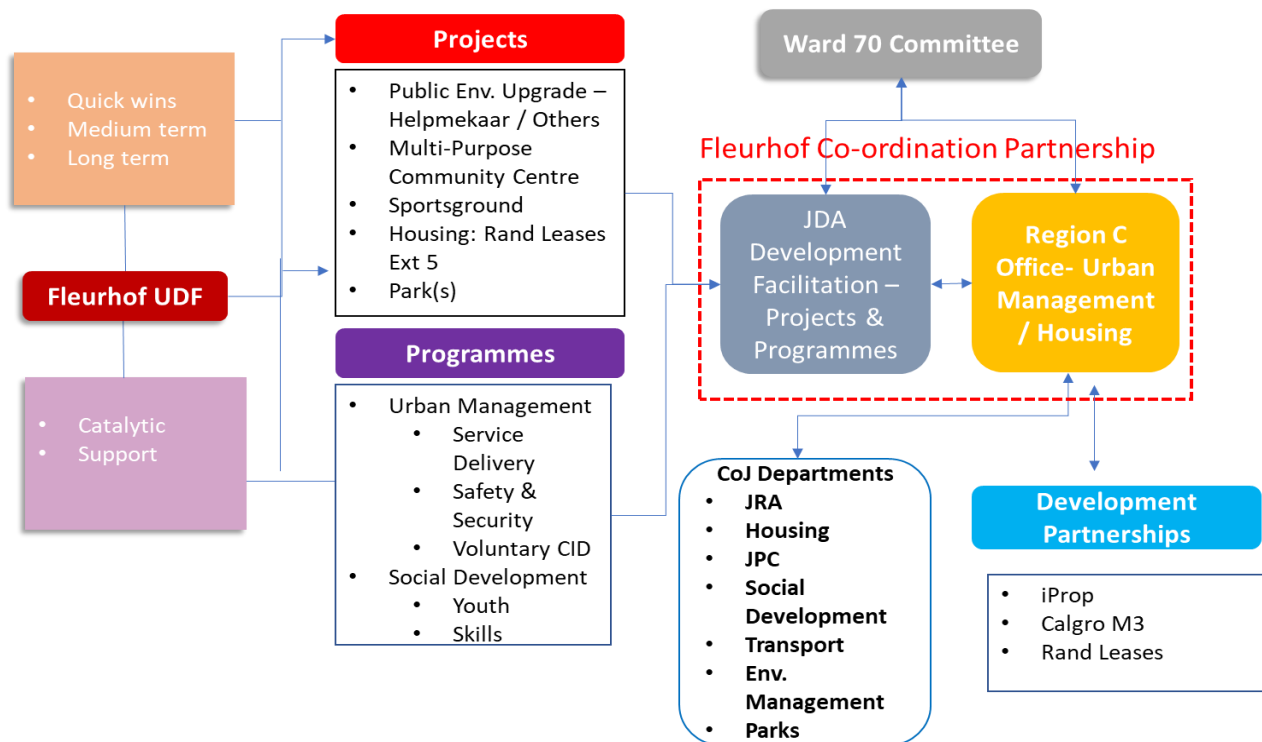


Figure 19: Institutional arrangement for Fleurhof UDF

The City has centre for engineering which deals with Project packaging. The method that is followed for projects and programme preparations imamates for the IDP process and programme integration (leadership oversight) meetings, where the departments and entities will package them in order to minimize or avoid redoing the works. Furthermore, before budget can be allocated, the acquisition workshop will be conducted to address the state of readiness and to avoid the risk of non-expenditure especially on the capital grants

Below is an example of how JDA, which is the implementing agent for the city, does the project and programme preparations. JDA structures its business plan as aligned to the City of Johannesburg programmes which provides ease of reporting and monitoring of performance on projects delivery.

SDF Priority Transformation areas	Corresponding JDA Regional Programmes	JDA Development Programmes
Strengthening the	Inner City and the Old South	• Programme 1: Inner city

SDF Priority Transformation areas	Corresponding JDA Regional Programmes	JDA Development Programmes
metro core	(including Turffontein and Mining Belt)	transformation Programme <ul style="list-style-type: none"> • Programme 2: Strategic economic node programme • Programme 3: Public infrastructure delivery programme • Programme 4: Greater Alex and Alexandra Renewal Programme (ARP) • Programme 5. Economic Empowerment Programme
Unlocking Soweto	Greater Soweto (including Lenasia, Eldorado Park, Nancefield)	
Consolidating public transport backbone	The Corridors of Freedom: Empire-Perth Corridor and Louis Botha Corridor	
OR Tambo Corridor	Alex and the OR Tambo Corridor (includes Randburg, Sandton, Cosmo City, Modderfontein, Frankenwald)	
Addressing marginalization	Marginalized Areas – Diepsloot, Ivory Park, Orange Farm	

Table 14: SDF Priority Transformation Areas and Corresponding JDA Development Regions and Programmes

The JDA's approach towards area-based development covers the following five practices and services:

1. **Development identification and project packaging** - Identifying strategic opportunities to respond to the CoJ's focus area by bringing together all relevant stakeholders and parties to the initiative, and developing an implementation plan.
2. **Development and project facilitation and co-ordination** - Working with various stakeholders and parties to ensure that they are undertaking their roles as expected and required.
3. **Overall development implementation involving capital developments** - In ensuring that the development is implemented as planned, JDA may oversee specific project management functions within a development, while retaining overall accountability as a development manager. Through local beneficiation, in terms of small, medium and micro enterprise (SMME) and entrepreneurial support, the JDA aims to increase the number of local emerging contractors used in capital projects carried out in the various communities, as well as the number of local construction jobs created.
4. **Post implementation support and sustainability** - Complement any capital development or investment with urban management initiatives and models.
5. **Impact Assessment / monitoring and evaluation** - Analyse, review and quantify private sector investment in various JDA intervention areas, and assess the socio-economic impact of these interventions. This is achieved through, among others, analyses of property market trends and factors that influence investor interest in JDA development areas. Value for money assessment.

The JDA has aligned the main elements of our work and highlights the flow between them:



Figure 20: Development Process / Lifecycle

The following Figure 21 below unpacks the JDA’s value creation process and also illustrates how the JDA has aligned its activities and efforts to achieve expected results by structuring the main elements of our work.

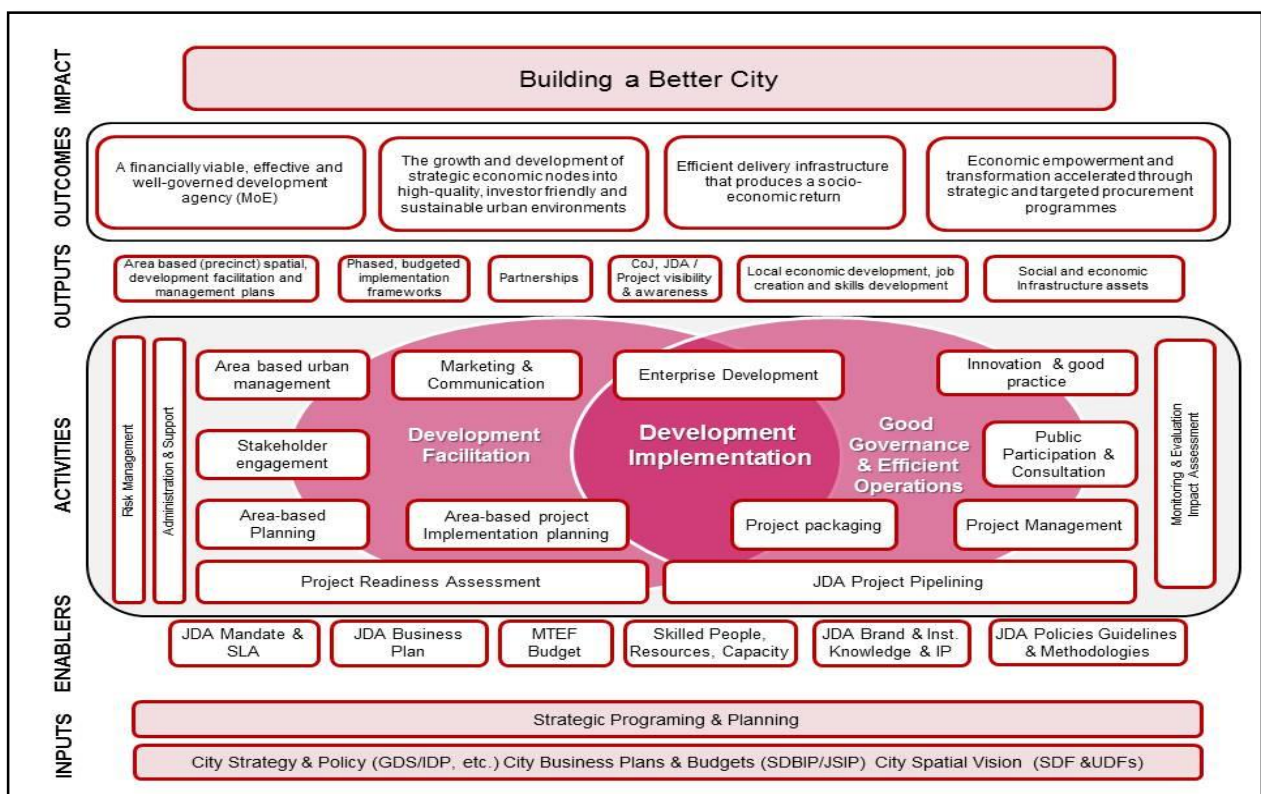


Figure 21: JDA’s Value Creation Process

Figure 21 as indicated above also outlines, the processes that a project within a city undergoes from planning by officials and community through public participation process to implementation. Key role player are identified and the coordination thereof is illustrated in this figure on how the actual project will play a bigger role in the vision of the city.

The JDA is accountable to the Department of Development Planning and the Member of the Mayoral Committee for Development Planning, who exercises political oversight and to whom the JDA submits compliance reports in respect of its performance scorecard. The JDA relies on the Department of Development Planning for direction on its contractual obligations contained in

the service delivery agreement, and on the Member of the Mayoral Committee for its political mandate and oversight. The Group Governance unit provides corporate governance and related support, including financial sustainability and compliance reporting and review.

The Council's Portfolio Committee on Development Planning provides political oversight of the JDA's activities and functions. The JDA also falls under the Economic Development Mayoral Cluster Committee, which ensures that the work of the other departments and entities mandated with spatial transformation and economic growth of the city is integrated and coordinated. The JDA coordinates its area-based development activities and other catalytic interventions with the Department of Development Planning and engages with client departments in the design and construction of infrastructure assets.

C3. INSTITUTIONAL ARRANGEMENTS

Climate Action Forum (CAF)

The Climate Action Forum (CAF) was established on the basis of the recommendations made in the Climate Change Strategic Framework (CCSF) that was produced by the Environment and Infrastructure Services Department (EISD) in 2015. The forum is viewed as one of the mechanisms to institutionalise climate change within the City of Johannesburg. Thus, it will serve as an advisory and knowledge building and sharing platform that provides internal support to the city's departments and Municipal Entities (MEs). The Forum is also envisioned to assist in developing climate change strategies and policies, and coordinate, monitor and report on the integration and implementation of such strategies across various sectors. In addition to that, CAF will ensure that those climate change policies and strategies are aligned, and are effective and are not repeated. CAF will also identify research gaps that needs to be studied and analyse the available data in order to determine the need for new one. This clearly points that the purpose of this CAF is to enhance knowledge sharing and data gathering, promote policy integration and implementation of climate actions and intra-governmental coordination and cooperation and lastly to identify research needs.

The forum will sit within the Sustainable Services Cluster, but will incorporate inputs from the other clusters in order to ensure broader integration on climate change related matters. Likewise any forums in the municipality, it will report through the established institutional mechanisms, the Technical Clusters, the Mayoral Sub-Committee, the Mayoral Committee, Section 79, with decisions in this regard taken by Council. The forum is expected to establish focused working committees which is will offer a platform to engage technically, discuss trade-offs between climate actions and mainstream climate change into programmes and projects. The forum should also form a high level steering committees that will strategically guide and take decisions relating to the authorisation, resourcing and delivery of climate action in the City. All in all both committees are to set to assist the forum with specialised technical and strategic inputs.

Sustainable Organic Farming Advisory Committee

This is a volunteer advisory committee established to support and advise on the implementation of City of Joburg UNEP/GEF Sustainable Organic Farming Production Program, and the development of inclusive and comprehensive organic food production related policies and

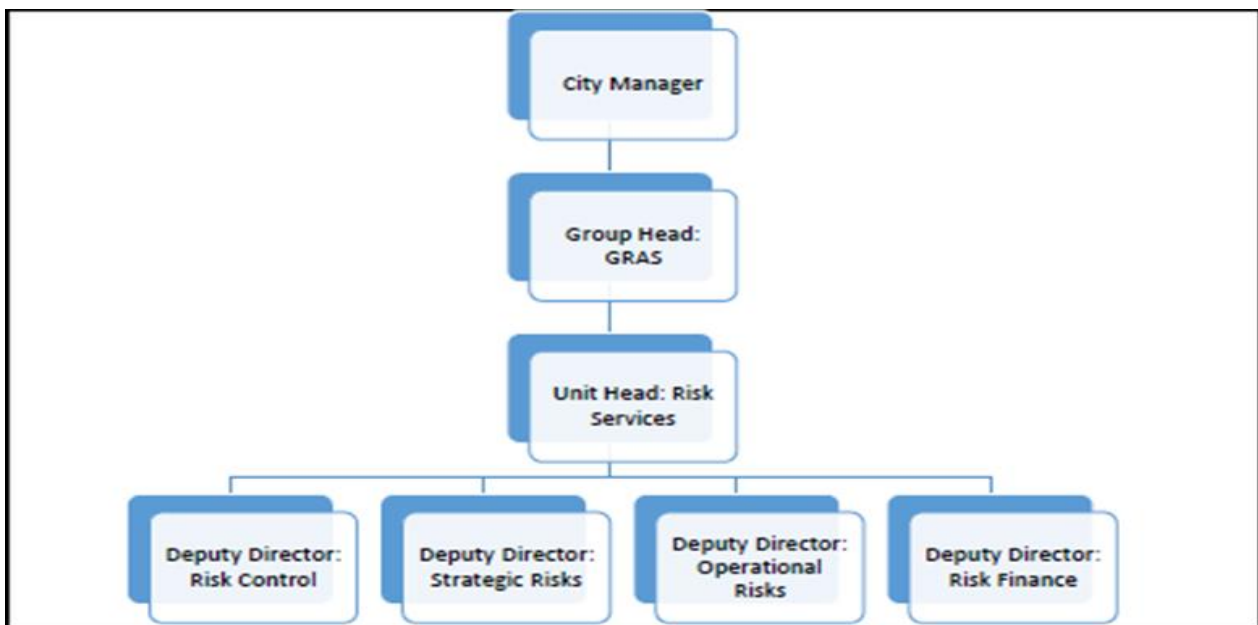
programs based on internationally recognized principles and best practices/available evidence. The Sustainable Organic Farming Advisory Committee when approved by the city will comprises of sector representation from all role players in the food system (Food Production, Processing & Distribution, Buying & Selling, Consumption, and Food Waste Management). The functions of the Advisory Committee are as follows:

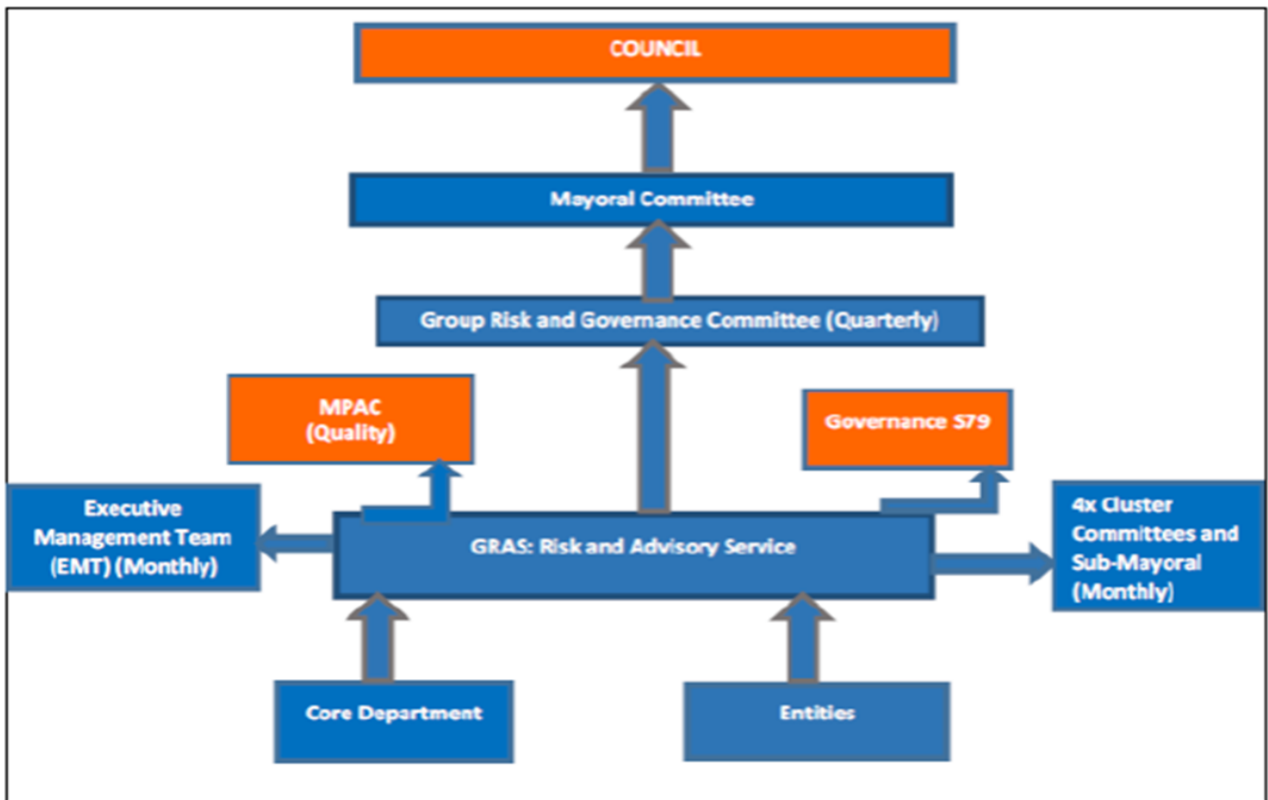
- Identify and inform, where appropriate, innovative organic food production policies and programs that align with the vision and goals of the City of Joburg UNEP/GEF Sustainable Organic Farming Production Program, Food Resilience Policy and other City strategies
- Identify and advise on emerging issues affecting City of Joburg UNEP/GEF Sustainable Organic Farming Program
- Support research, monitoring, and evaluation efforts, and identify gaps and opportunities that may inform urban agriculture, organic food production policies and program modifications
- Facilitate the dissemination of lessons learned and cross- promotion of organic food production within existing programs, events, policies, services, and other actions

RISK MITIGATION STRATEGIES

The City has an established and well-functioning Risk Committee which meets on quarterly basis. The diagram below shows the institutional arrangement relating to Risk management within the City

Diagram 1: City’s risk management governance and reporting structure





Enterprise Risk Management (ERM) is a process, effected by the City of Johannesburg Metropolitan Municipality’s Council, management and other personnel, applied in strategy setting and across the organisation, designed to identify potential events that may affect the City, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of the City’s strategic objectives, Mayoral Priorities and GDS2040.

Risk related to the Built Environment and Climate Responsiveness & Resilience

1. *Excessive reliance on grant funding from Government for key projects*
 Explore other avenue to generate revenue and improve in collection. Also engage with provincial departments to identify their investment in the City’s space.

2. *Lack of awareness of other projects within the city’s space by other Government entities, resulting in planning in isolation and not utilising potential synergies and cost savings*
 Ongoing engagements with the relevant departments to influence each other’s planning decisions during project identification

3. *Procurement and contract management: teething challenges experienced with the latest Preferential Procurement Regulations 2017*
 Continuous interaction with National Treasury regarding compliance and a planned workshop on the Preferential Procurement Regulations 2017 which will include SCM practitioners and project managers drawn from end user departments and Municipal Entities.

SECTION D: CATALYTIC URBAN DEVELOPMENT PROGRAMME RESOURCING**D1. CATALYTIC URBAN DEVELOPMENT PROGRAMME RESOURCING****D1.1 Long term financial sustainability**

The financial development plan has been reviewed in line with historic performance trends and the local government regulatory framework, and used to confirm both the adjustment budget and the 2018/19 budget indicatives. The outcomes of the process were used to inform the resource allocation process. The funding model still relies heavily on revenue generated from trading services through tariffs, supported by grants and loans. Built into the models are modules that recognise constraints as a result of existing commitments and the projected financial position. Optimisation as a modelling technique was used to arrive at budget limits that put the organisation at a sound financial position. The modelling process also shed light on the performance of major revenue sources in relation to capital investments made, providing a rich background of evaluating budget proposals.

The Capital Investment Framework (CIF) is the framework through which the City identifies and prioritizes capital projects for implementation in the forthcoming financial year and the relevant medium term budget. Over the past years, aspects of the framework have been used to develop various modules of the City's infrastructure planning tool, (JSIP).

Capital investment is addressed within the budgeting process and is driven by the following:

- The Growth and Development Strategy;
- The Mayoral Priorities;
- Key IDP Interventions;
- The Spatial Development Framework;
- The Growth Management Strategy; and
- Capital Investment Framework

The City has a long term financial sustainability plan which ensures that there is continuity in implementing projects which will result in achieving the long term strategic vision of the City in the Growth and Development Strategy as well as Spatial Development Framework. Some of the projects are identified through the IDP participation process.

Strengthening the Link between the City's Capital Budget and Spatial Planning

In order to understand the link between the City's Capital Budget and Spatial Planning, it is critical to note the following.

- Implementation of ideal spatial plans generates demand for infrastructure.
- The demand for infrastructure exceeds supply as evidenced by the existence of infrastructural backlogs.
- The City's capital budget should be viewed as a supply side measure intended to ensure the availability of infrastructure.

Given that the useful life of infrastructure is long term in nature, the City takes a long term view in its funding. The City has a Financial Development Plan (FDP) which is a strategic modelling

tool intended to give a long term view of the City's finances with the underlying goal of ensuring long term financial sustainability in implementing capital and operating mandates.

FDP outputs include 10 year projections for Opex and Capex. The first 3 years of the projections serve as the starting reference points for determining the sustainable Capex budget over the MTREF. Key variables considered in determining the level and composition of the City's Capital Budget include the following among others:

- Current Debt levels, Maturity Profile of Long Term Debt and Available Capacity to sustainably accommodate new debt.
- Revenue Projections
- Free Cash flow Projections
- Level of Surplus Cash Reserves
- Limitations on Indebtedness as contained in current loans agreements.
- Capital Grants Projections
- Depreciation vs Asset Renewal and Replacement requirements
- Macroeconomic variables (GDP growth rates, inflation rates, interest rates etc.)

The City's FDP projections and Capital Budget, therefore sequentially determine the amount available to spend on spatial planning. While allocation to catalytic projects is currently done within the confines of the gross capital budget, the JSIP platform is utilized to ensure that Capex is allocated to high impact projects.

Given the persistent nature of infrastructure backlogs and limited balance sheet capacity, the City is currently exploring how best to utilise alternative off balance financing mechanisms to alleviate the backlogs.

CoJ asset management approach

As part of the CIP, the city undertook an assessment of the current status of asset registers and business processes relevant to asset creation, disposal, rotables, etc. An implementation framework has been developed in line with the findings and work has already begun to ensure alignment between business processes, asset registers and the GIS system. Bulk assets in the register will be created in the GIS and linked to the same asset number as displayed in the register. Infrastructure asset management in the city is guided by:

National Treasury's Municipal Budget Circulars

National Treasury's Municipal Budget Circular for the 2014/15 MTREF period, required municipalities to secure the health of their asset base (especially the revenue generating assets) by increasing spending on repairs and maintenance. If the budgeted amount for repair and maintenance is less than 8% of the PPE asset carrying value, as recorded on the last financial statements, then the Circular requires the municipality to provide a detailed explanation and assurance disclosure to confirm that the budgeted repair and maintenance amount is adequate to secure the ongoing health of the entity's assets. Asset renewal as well as repair and maintenance of existing assets have since been receiving adequate attention.

mSCOA Requirements for Asset Maintenance

The Municipal Standard Chart of Accounts (mSCOA) regulations were gazetted on 22 April 2014, making the application for mSCOA to local government a legislative requirement with effect from 01 July 2017. This specified norms and standards for the recording and the collection of local government budget, financial expenditure and non-financial information, thus impacting on the 2017/18 annual financial statements and audit of all municipalities. The objective is to provide a national standard for the uniform recording and classification of municipal budget and financial information at a transaction level by prescribing a standard chart of accounts. The city has since embarked on a programme to ensure uniformity in reporting, performance measurement and compliance in respect of asset data.

Cities Infrastructure Delivery and Management System (CIDMS)

The CIDMS principles include:

- ✓ Standardising and using improved definitions for the asset management life-cycle activities that take place such as operations, maintenance, repairs, major repairs, preventative maintenance, renewal, rehabilitation, upgrades, replacement, alterations and/or refurbishment, which will presumably now involve the definitions provided in the CIDMS.
- ✓ Standardising the definitions for the terms capex and opex, including the allocation of each of the asset management life-cycle activities to one of these accounting categories, which will presumably now involve the definitions and allocations provided in the CIDMS.
- ✓ The relationship between, and information contained in, the required *Asset Management Plans, Asset Maintenance Plans and Operation and Maintenance Plans* needs to cover the following aspects:
 - Utilise the initial life-cycle planning information to ensure budgetary provision for adequate funds to ensure that existing assets continue to perform at the planned levels and standards of service;
 - Understand the criticality of the asset for municipal service delivery;
 - Understand the affect the required maintenance levels and activities will have on the asset performance and/or the visual appearance of the asset, with the necessary response time stipulated to prevent failure;
- ✓ To identify the higher-priority maintenance tasks in the maintenance strategy, which will enable maintenance efforts to be focused on these areas if the available resources fall below the planned levels;
- ✓ To identify the routine inspections and services that are required to able target actions to be taken in a timely and cost-effective manner; and,
- ✓ To identify and assess the cumulative effect of deferred maintenance, including the impact on the budget, as this will have a significant bearing on the formulation of the asset plans and budgets that are input into the IDP.

Accounting Standards Board (ASB) Requirements for Asset Maintenance

The Accounting Standards Board (ASB) issued amendments to GRAP 17 to ensure that, from the 30 June 2017 financial year end, repair and maintenance expenditure for PPE assets should

be disclosed in the annual financial statements, either as part of the disclosure notes or on the face of the Statement of Financial Performance. This changes the past practice where repair and maintenance has not been shown as a line item in the financial statements, but it has been budgeted for as a separate line-item. At present, the emphasis is on properly repairing and maintaining assets, so the sufficiency of the expenditure on repair and maintenance is assessed as a percentage of the asset value by users of financial statements.

Business Transformation Project- Infrastructure Asset Management

The City needs a central repository of data to produce meaningful, justifiable budgets for capex- and O&M work in the City. This data should be coming from the asset registers, whether financial or technical. The Business Transformation Project is an opportunity for the City to establish part of the required infrastructure asset management system within the SAP environment. In general, this necessitates the following programme activities which will be undertaken to ensure that the project is successful:

The City needs to establish an asset management system that consolidates all infrastructure asset data at the enterprise level for unified planning and subsequent reporting. A vision for the future operation is shown schematically on the figure below, where each area needs to be standardised across the City (as far as possible) considering the existing format and approach with the addition of the *municipal Standard Chart of Accounts (mSCOA)* and CIDMS requirements. This *Asset Management* activity will address both capital and operational expenditure requirements.

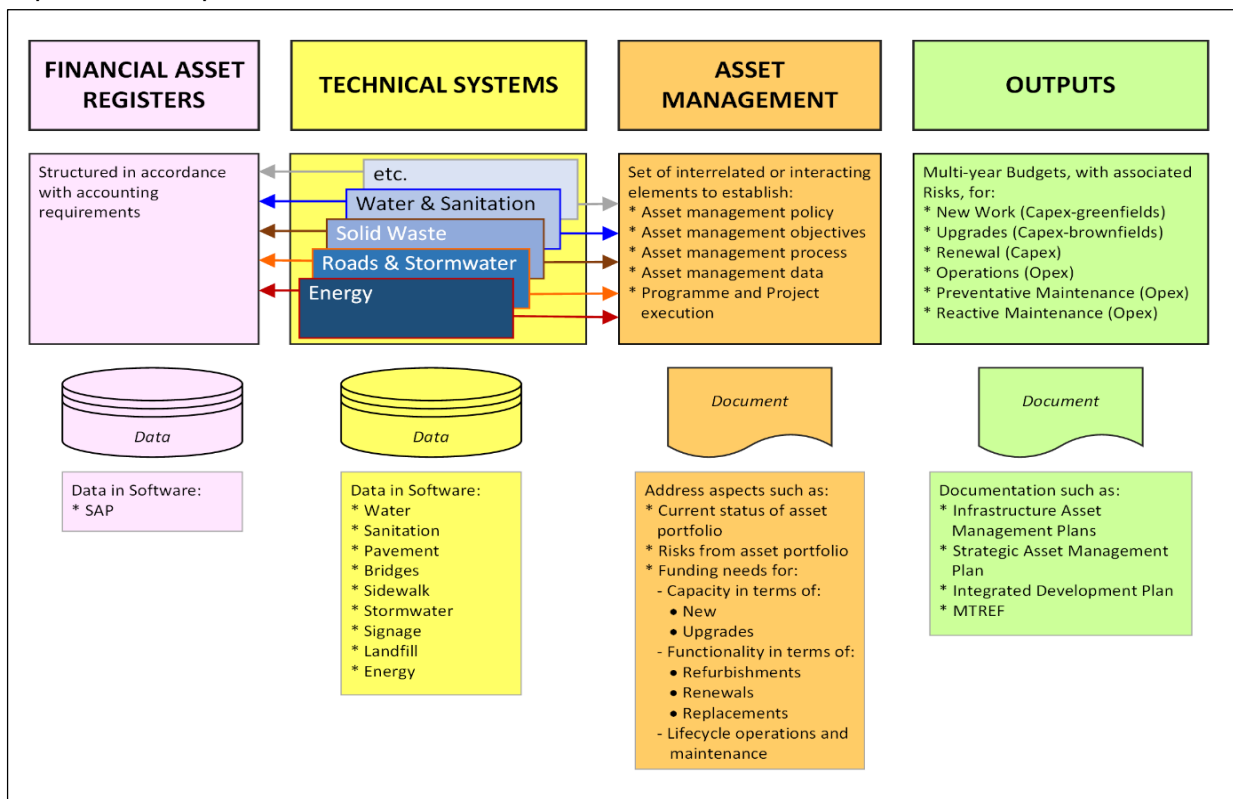


Figure 22: Asset Management activity

The City is in the process of:

- ✓ Defining the requirements for the AM system covering the process, the data, the application and the people;
- ✓ Understanding what can be done using the “vanilla” format of the SAP-application and confirming the scope for the SAP Business Transformation Project;
- ✓ Defining the functionality to be provided by other computer applications and arranging for that to be done, including all hardware and network arrangements;
- ✓ Confirming the availability of the existing data and arranging for any additional data that is required to be collected and captured;
- ✓ Ensuring that the operational processes are defined and that the personnel have the necessary knowledge to apply these processes with the technical tools that are being made available; and,
- ✓ Testing the business readiness and the implementation of the information systems.

ENGINEERING INFRASTRUCTURE: OPTIMISATION STRATEGY

Well-functioning infrastructure has always been very important to both the local economy and the society. The robustness of infrastructure systems can be judged by their capacity to accommodate change over time. Our current infrastructure increasingly fails to meet demands. Facilities are ageing; their levels of service, reliability and performance are decreasing and increasingly their outputs as a result of failure, escape into natural environments and fragile ecosystems causing further harm. The current challenge facing the City is to shape the infrastructure in a manner that clearly benefits the city today and meets the demands of future generations; supports a sustainable environment; promotes energy conservation; provides protection and resilience to the infrastructure; accelerates economic growth; creates new jobs; and, as a whole, results in the city becoming more economically competitive.

The CIP aim to assist in forecasting future demand for engineering infrastructure and to integrate planning, implementation and management of assets and related programmes, to ensure sustainable and cost-effective infrastructure delivery and operational practices. The optimization strategy was developed to determine savings in engineering infrastructure investments by minimising the overlap between bulk refurbishment projects and bulk capital projects within the same asset class. In some instances, maintenance work is required on a specific piece of infrastructure to keep it functional and an upgrade is planned shortly after the maintenance work, which would result in the refurbished infrastructure’s being replaced.

The strategy is therefore based on the principle that: it is valuable to align refurbishment with upgrades to maximise the return on investment by saving on the cost of refurbishment. The value from the exercise is a direct saving in refurbishment cost which would be wasted otherwise. CIP investigated the bulk infrastructure components and was able to make a 30% saving on the refurbishment budget. This provides for a significant portion of the budget to be re-invested, preferably for infrastructure projects. The following table presents the potential cost saving for the relevant sectors. The percentage saving per sector indicates the saving

compared to the total 20-year refurbishment budget. The overall saving compared to the sectors combined budget is also indicated.

Sector	Savings amount	Percentage saving
Water	R60 655 766	36%
Sanitation	R52 535 400	32%
Electricity	R52 535 400	25%
Total	R165 726 566	30%

Table 16: Investment optimisation strategy savings amount per sector

Funding is required for the current ageing and new infrastructure. As with any city, funding shortfalls exist which require prioritisation of the infrastructure requirement. The prioritisation is fundamental to where investment occurs first. As such, a financial model is developed to cater for the overall infrastructure investment analysis, modelling of the identified projects and a comparison of required funding vs the available funding.

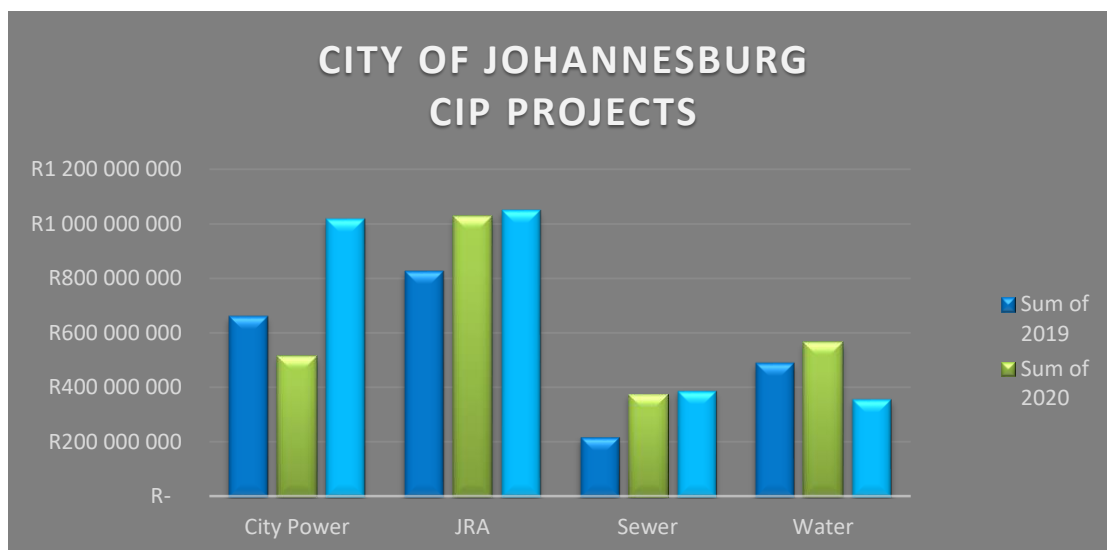


Figure 23: Budget allocation for CIP projects

The Graph above (Figure 23) indicates how much the city will be spending on basic engineering services for the next MTEF which is approximately 27% of the total Capex. JRA is consuming more of the city’s CIP budget, given the nature of their work.

D1.2 Resourcing the intergovernmental project pipeline

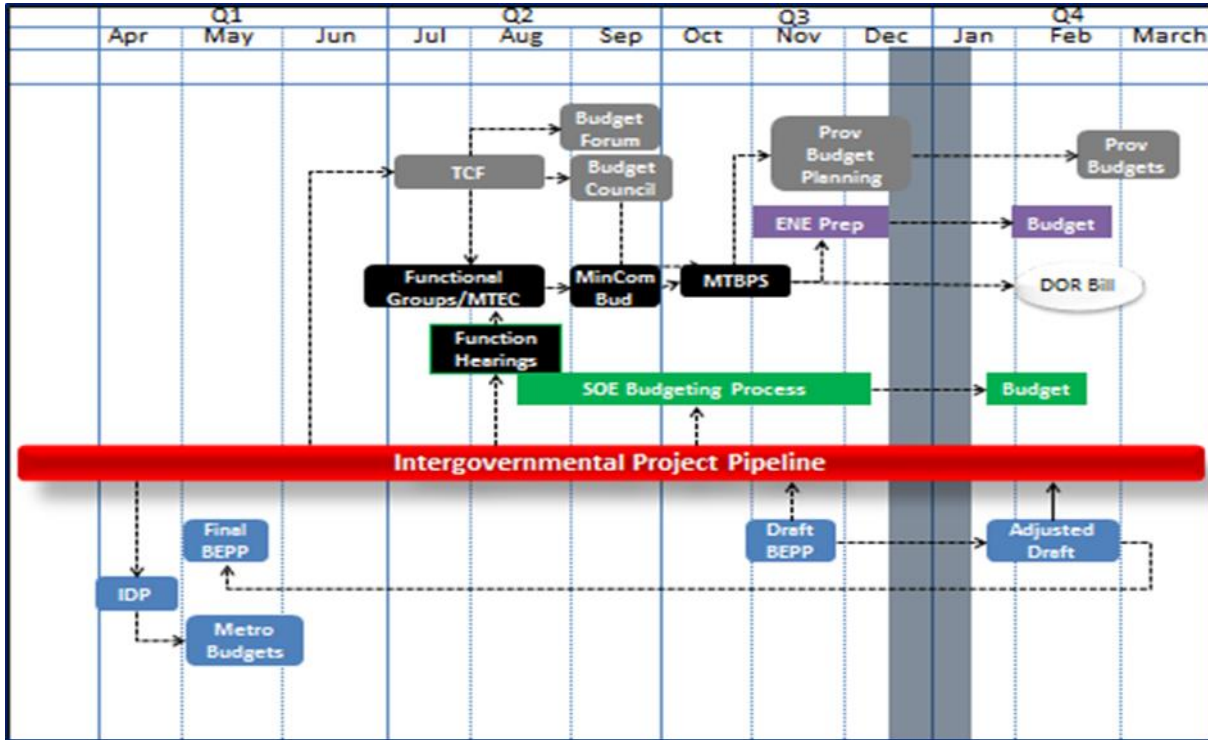


Figure 24: Inter-Governmental Planning Alignment (source: BEPP guidance note)

One of the challenges encountered through joint planning is misalignment of timeframes between metros and Provinces given that their budget processes are different. It is noted that the link between the BEPP Process and the annual national budget cycle is being strengthened on an ongoing basis. This is being achieved through aligning the time frames for the development and submission of Medium Term Strategic Plans and/or Annual Performance Plans of the relevant National and Provincial departments and state-owned entities to the BEPP planning timeframes, and having a structured process and mechanism/s for joint inter-sphere planning and budgeting as part of the general annual budget process led by National Treasury.

RESOURCING THE METRO'S PROJECT PIPELINE/SPATIAL MIX

Capital budgeting process

Demands placed on the City's capital budget far exceed available resources. As such the City has to be strategic in its choice of projects, identifying only those critical projects that need to be undertaken in a given financial year. The total capital budget for the City is obtained from a number of different sources. It is funded from the tariffs, the rates base, bulk service contributions external loans, national department grants and loans and provincial department grants and loans.

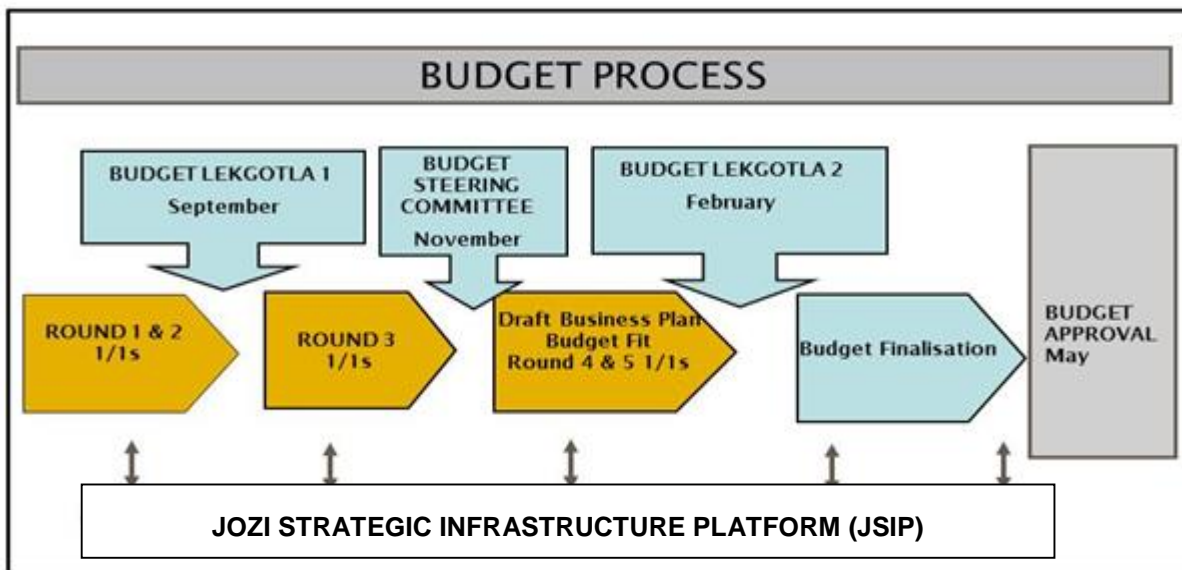


Figure 25: City of Johannesburg Capital Budget Process

In order to assist in prioritising capital projects to come to a consolidated list of capital projects to be undertaken, the City uses the Jozi Strategic Infrastructure Platform, known as JSIP. This live Internet database requires Departments and Entities to accurately capture and locate capital projects. Departments and Entities are requested to answer a range of questions relating to the project's impact on, and implications for: economic growth, social investment, finances, the environment, sectorial investment and the Extended Public Works Programme (EPWP). Responses to these questions, combined with the location of the project, are then used to prioritise the projects in question. The greatest weighting in the prioritization model is given to projects located within Priority Transformation Areas. Once this technical project prioritisation process has been undertaken the engagements are then held with the department or municipal owned entity concerned and the list of capital projects is discussed and confirmed.

Opportunity is provided for these divisions to present their own critical projects from the list of projects they captured on JSIP which may differ from the priority list generated on JSIP, so that these can be considered by the Budget Lekgotla for approval and implementation in the third financial year of the Medium Term Expenditure Framework (MTEF) financial year.

It is a programme based approach that considers:

- Specific area development programmes as defined by Priority Transformation Areas
- General area programmes
- Strategic growth support programmes (for example public transport based interventions)
- General themed programmes that fall outside of the area based programmes such as:
 - Informal settlement programme
 - Sustainable human settlement programme
 - Infrastructure backlog and refurbishment programmes (related to hotspots)
- Water
- Sewer
- Power
- Storm water

- Roads

Once a Budget Lekgotla representing the legislature and the executive has pronounced on the draft capital budget indicatives, the draft list of capital projects is produced from JSIP. A preparatory Technical Budget Steering Committee and a subsequent Budget Steering Committee (BSC) have been established in terms of the Municipal Budget and Reporting Regulations of the MFMA. The two Budget Steering Committees assess and comment on the Business Plans, including capital budget proposals, of the Departments and Entities for the medium term expenditure framework. This interaction assists the administrative heads of the City to make informed decisions on the allocation of the budget at a second Budget Lekgotla.

It is through this capital budgeting process that the strategic policy of the City outlined in the GDS, IDP and the Priority Transformation Areas, as well as the practical requirements of the Entities and Departments are condensed into a list of capital projects that the City will execute in the three year period.

The Budget Office fulfils the financial management function of monitoring the budget. The Directorate assesses the financial performance of the entities and departments, reports on financial progress and makes recommendations on the expenditure patterns and future allocations of funds.

The capital budgeting process and infrastructure is set to change through:

- The establishment of the Engineering Centre of Excellence in the Office of the Chief Operating Office which will provide support to existing engineering capacity.
- The implementation of the Consolidated Infrastructure Plan which amongst its aims will improve asset management coordination in the City of Johannesburg.

Budget alignment

The City's capital budget planning is directly aligned to the City's development strategy and priorities referred to in the Joburg 2040 Growth and Development Strategy, the Integrated Development Plan (IDP) and the Spatial Development Framework 2040 (SDF) to ensure the City achieve its vision.

A summary of the operating and capital budgets

In 2019/20, the City’s total budget amount to approximately R68.8 billion, the split between operating and capital are as follows:

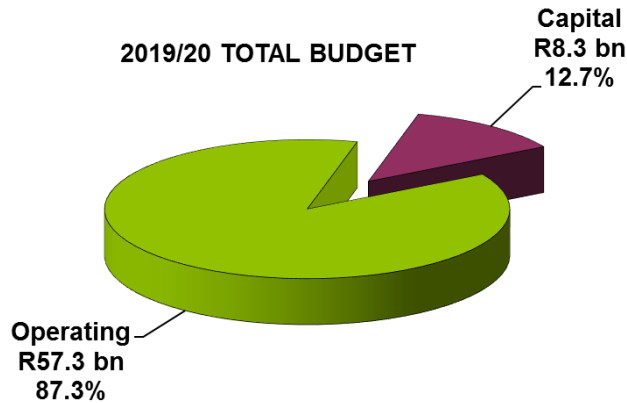


Figure 26: Summary of the 2019/20 draft operating and capital budgets

The above figure 26 reflects the total 2019/20 – 2021/22 MTEF capital budget allocation for the City which is approximately R25.4 billion over the next three-years.

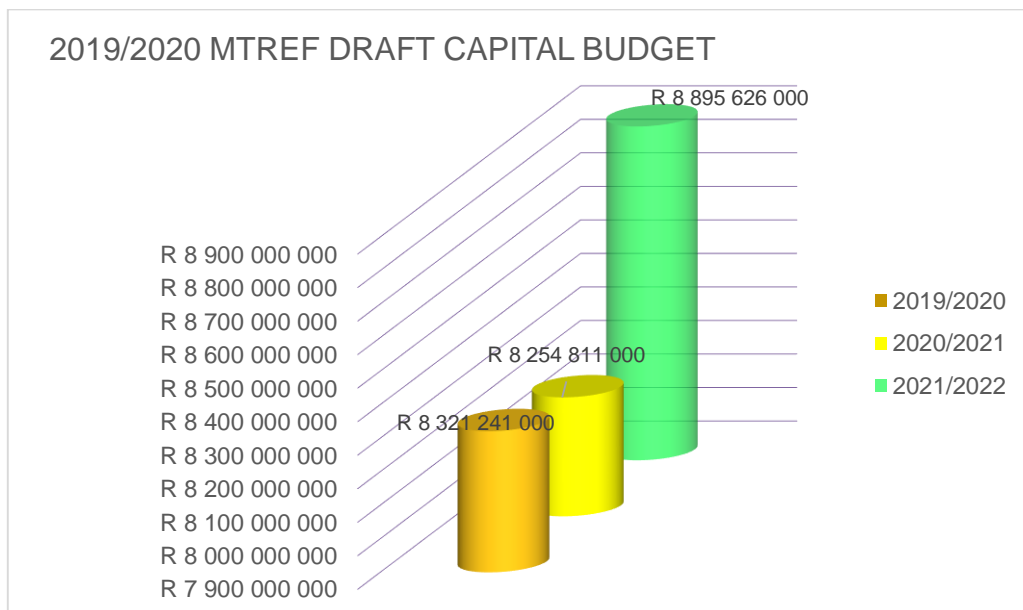


Figure 27: Approved 2019/20 Draft Capex

The total 2019/2020 MTREF capital budget allocation for the City is R25 417 677 000 with the average capital investment of about R 8 billion per annum as depicted in figure 2, above. Despite that there will be a decline in capital budget in 2020/21 of about 0.79% when compared to 2019/2020. The 2019/2020 capital budget has declined by R1 129 490 000 compared to the 2018/19 MTREF capital budget (see 2018/19 approved BEPP).

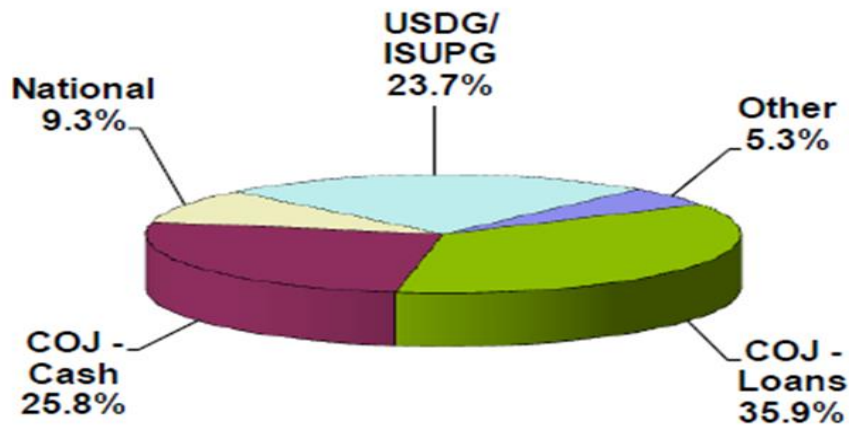
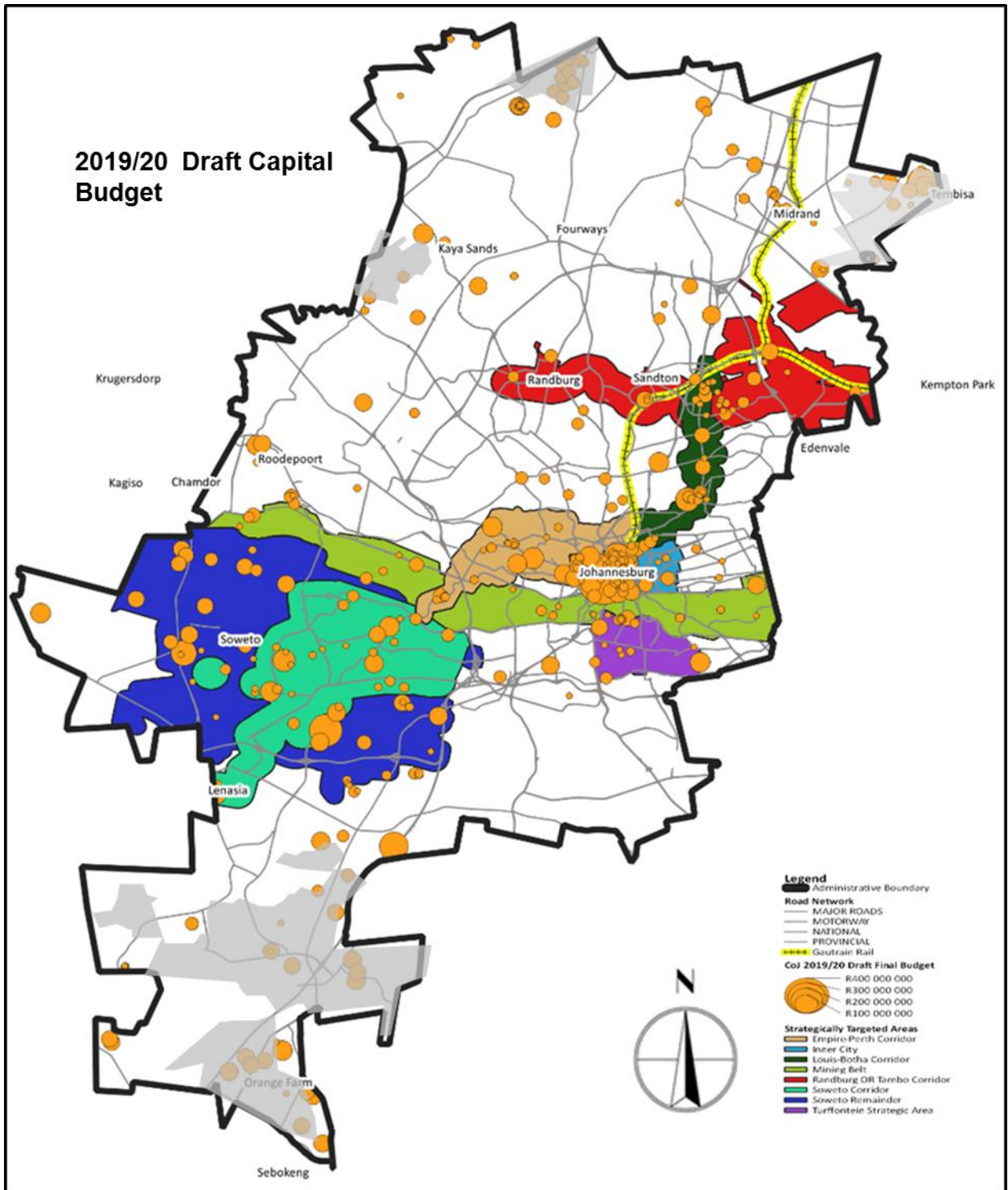


Figure 28: Sources of Funding for the 2019/20 Budget

The City receives funding from different sources and those are illustrated in figure 28 above. Similar to 2018/19 financial year, the majority of the funding still comes from Loans with R 2 988 369 000 (accounting 35.9% of the 2019/2020 Capex), Cash Reserves of R 2 144 904 000 (accounting to 25.8% of the Capex) and also from Urban Settlement Development Grant (USDG) with an amount of R 1 946 406 000.00 (accounting to 23.7% of the Capex).

In brief, 67% of capex is funded from City resources in the form of loans and cash surplus, and 33% of capital budget is funded from Inter Governmental Grants.



Map 22: CoJ 2019/20 Draft Capital Budget

The City is investing approximately R8 billion towards capital projects for 2019/20 financial year. Map 20 depicts how the draft capital budget is spread across the City to ensure that the needs of Joburg residents are catered for. It is evident that the City is accommodating all the areas that fall within and outside the spatially targeted areas which means the city is making efforts to cater for all that lives in Joburg.

Integration Zone Other Capital

STIAs receives 67% of the total MTEF capex, approximately 21% for Integration Zone (excluding inner city). There is therefore a need for alignment to the strategic areas identified for development and investment, mainly the Inner City, Transit Oriented Developments, Deprivation Areas and secondary economic nodes. (See Figure29 below). Investment in these areas includes both refurbishment and replacement of existing infrastructure and new infrastructure. Figure... below shows that most investments for the 2018/19 financial year will concentrate mainly in the Inner city followed by Soweto remainder. Spatially Targeted Investment Areas (STIAs) vs Other Capital. **Allocation of Capital Budget to each spatial targeting area (Annexure 3)**

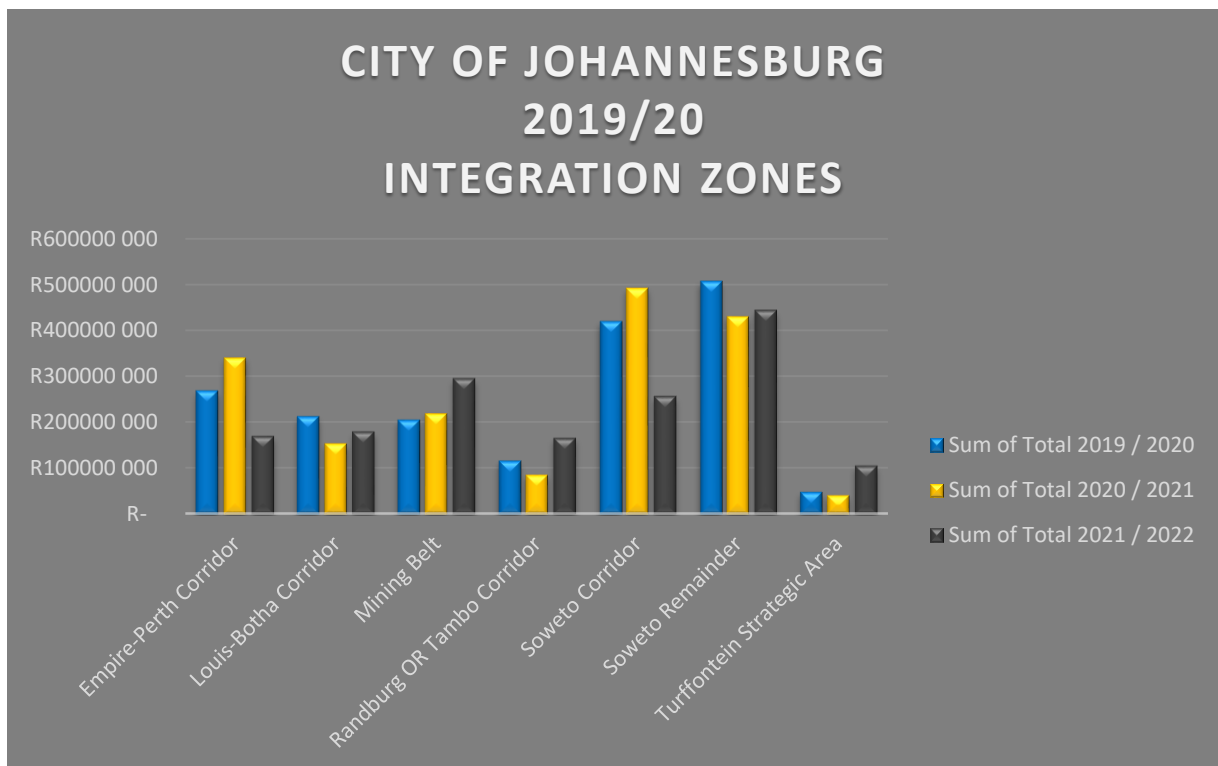
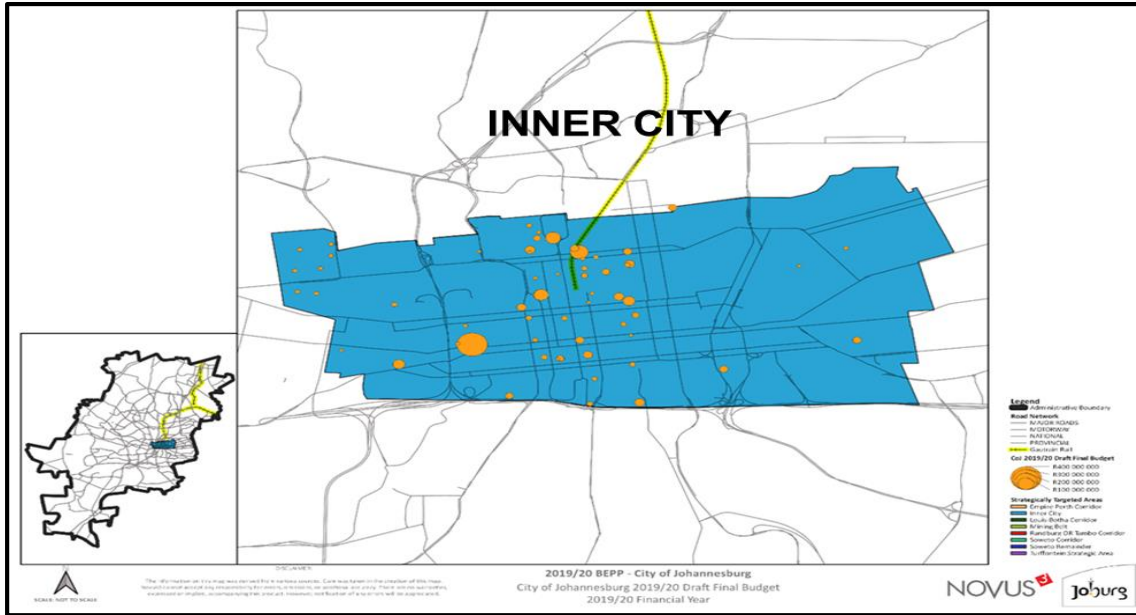


Figure 29: Budget allocation per Integration zone, excluding Inner City.

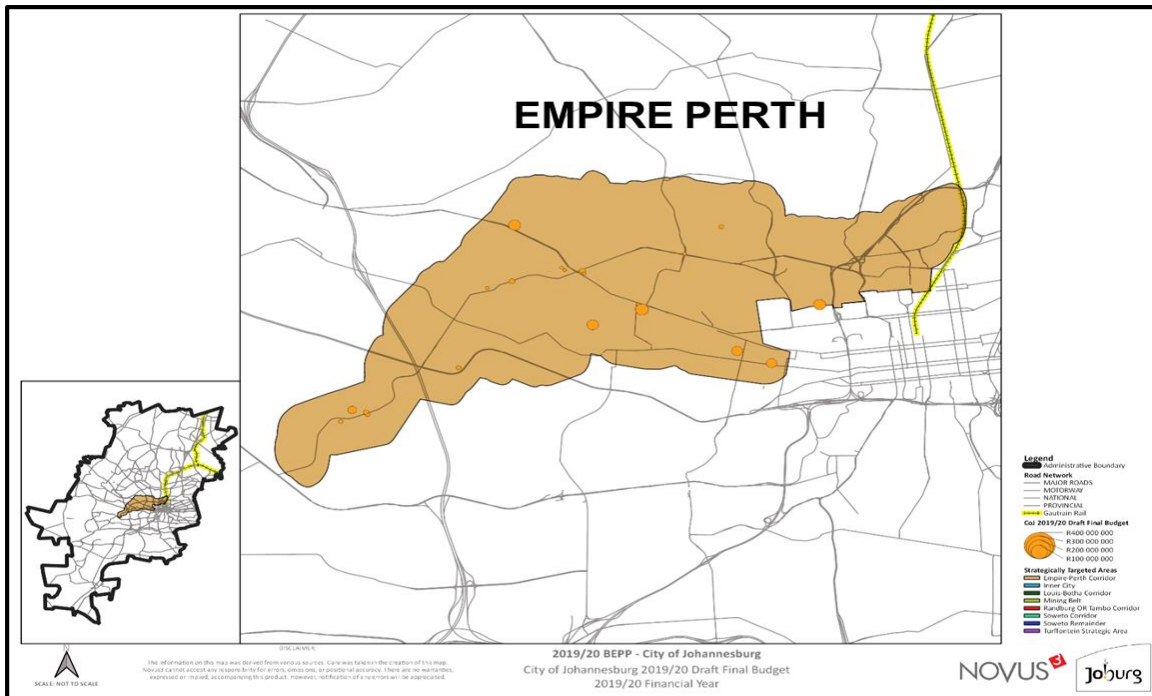
Excluding the Inner city, figure 29 reveals how the capital budget has been prioritise across the Integration zones for 2019/20 Soweto remainder will be receiving more budget followed by Soweto.

Proposed Capex Budget allocation in each Spatially Targeted Areas for 2019/20



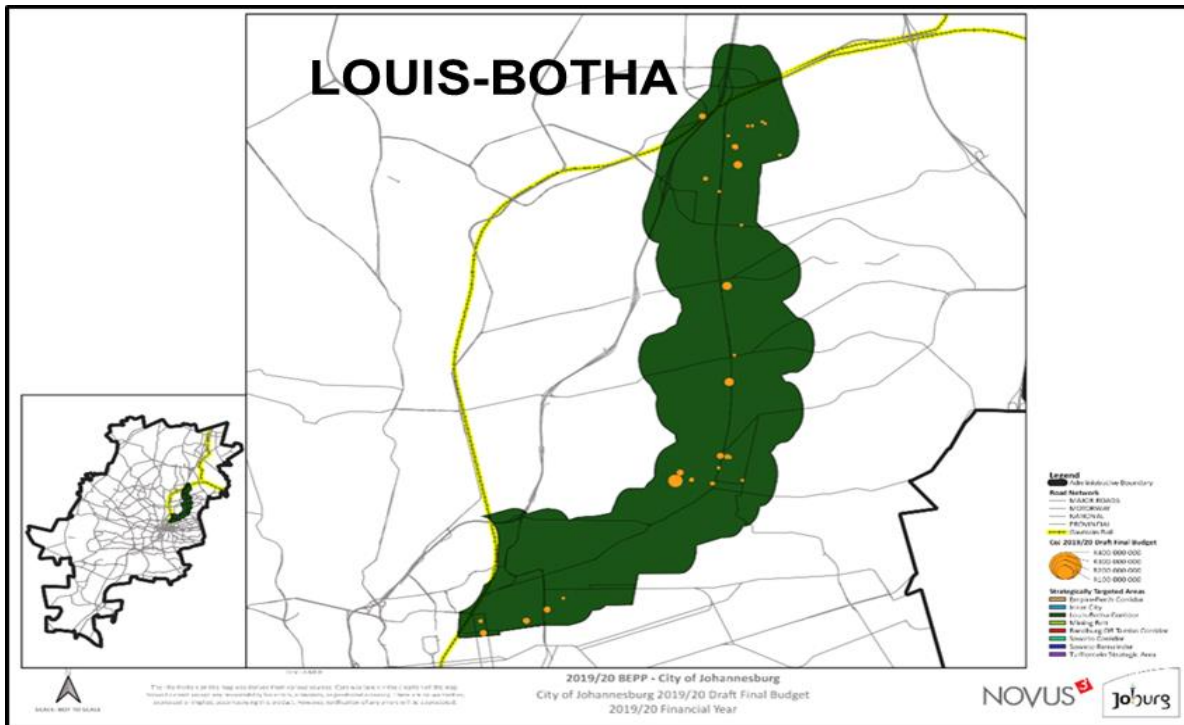
Map 23: Inner City

The City is investing R632 243 991 for 2019/20 financial year, which is 8% of the total capital budget



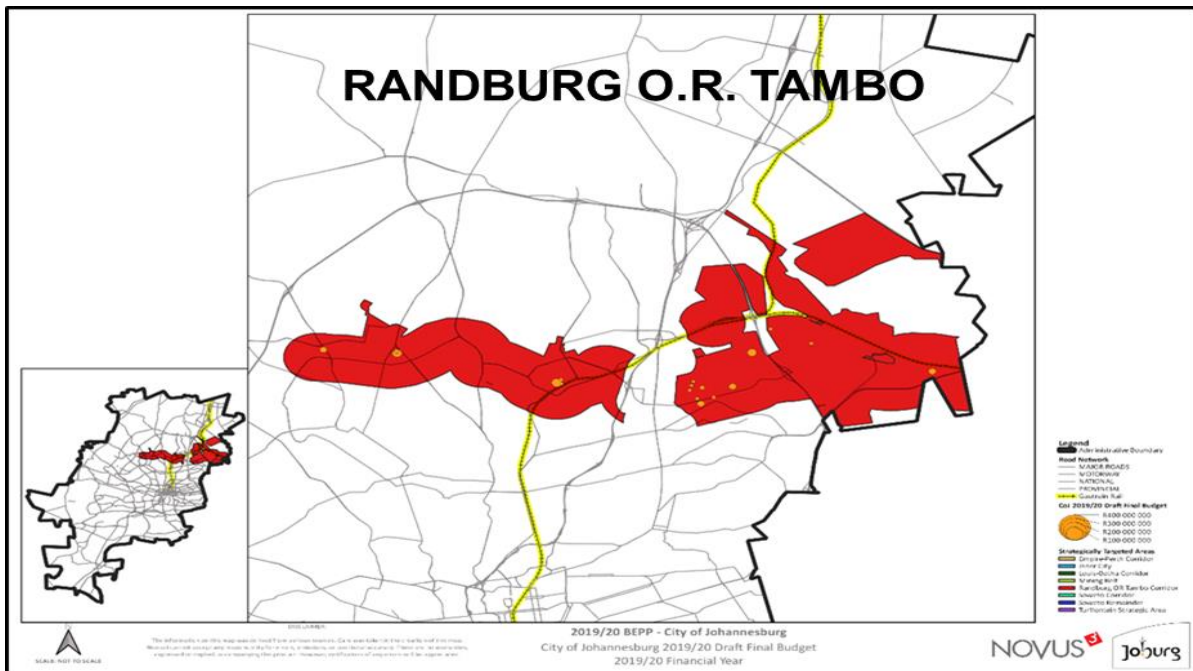
Map 24: Empire Perth

The City is investing R 269 153 640 for the 2019/20 financial year



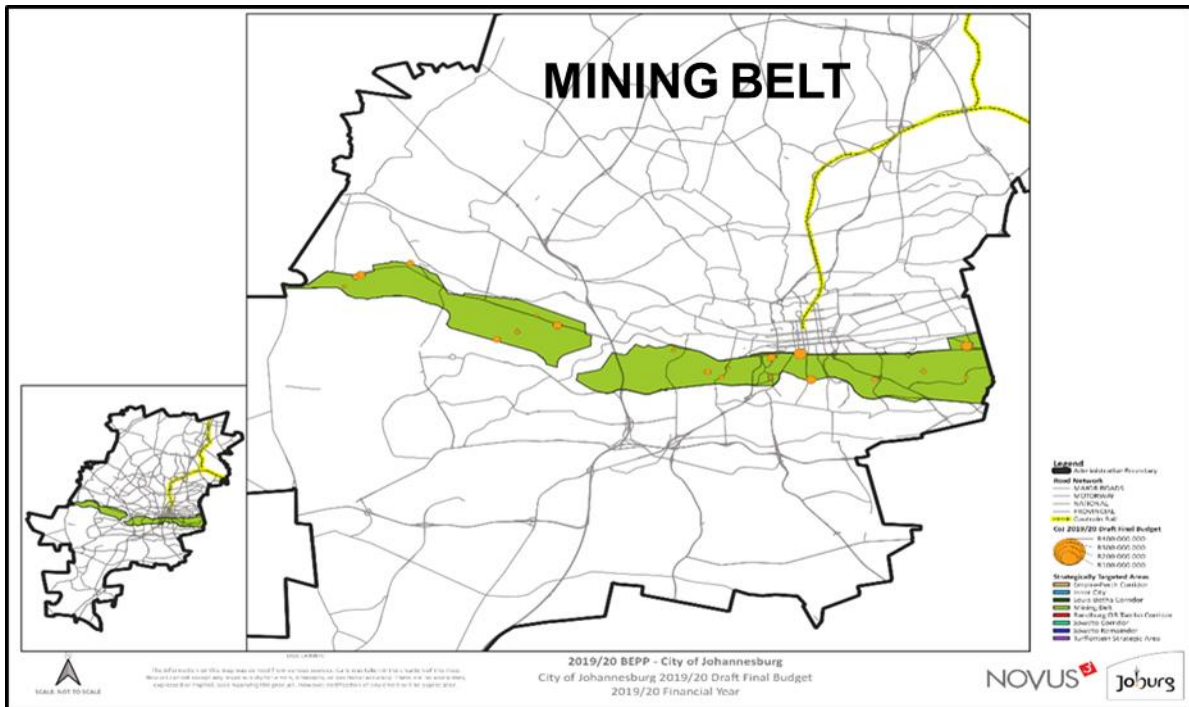
Map 25: Louis Botha

The City is investing R213 205 250 for the 2019/20 financial year



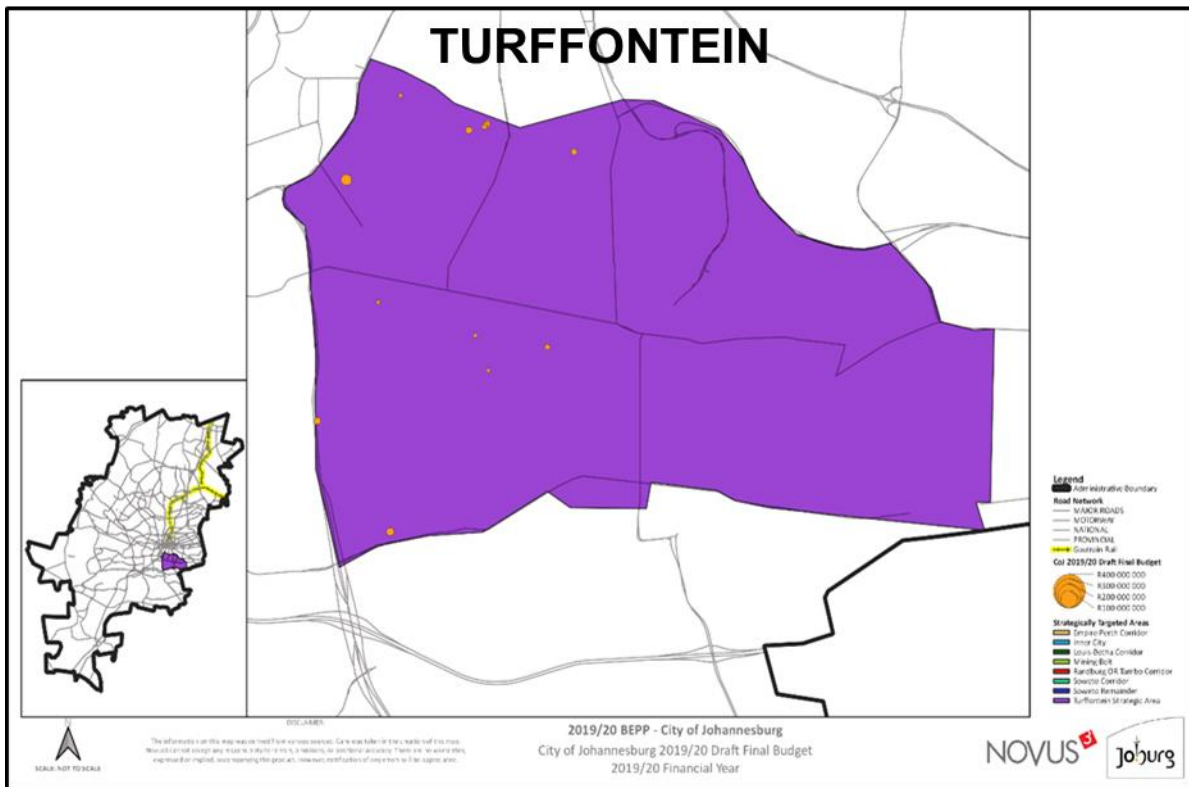
Map 26: Randburg O.R. Tambo

The City is investing R 117 153 785 for the 2019/20 financial year.



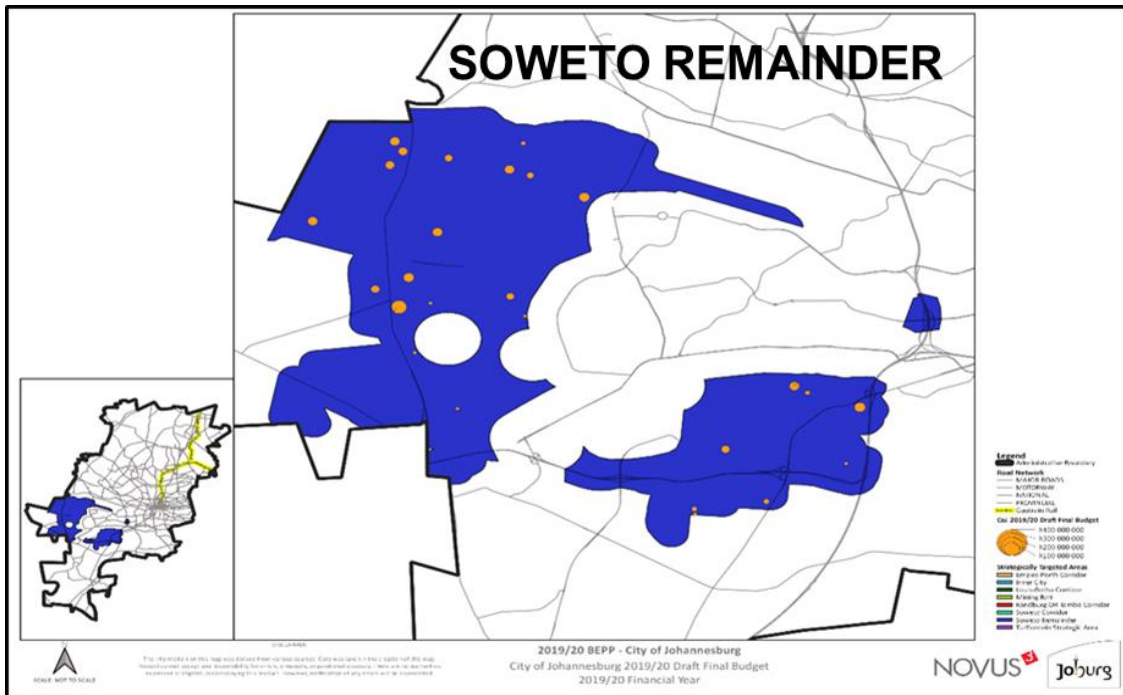
Map 27: Mining Belt

The City is investing R205 950 143 for the 2019/20 financial year.



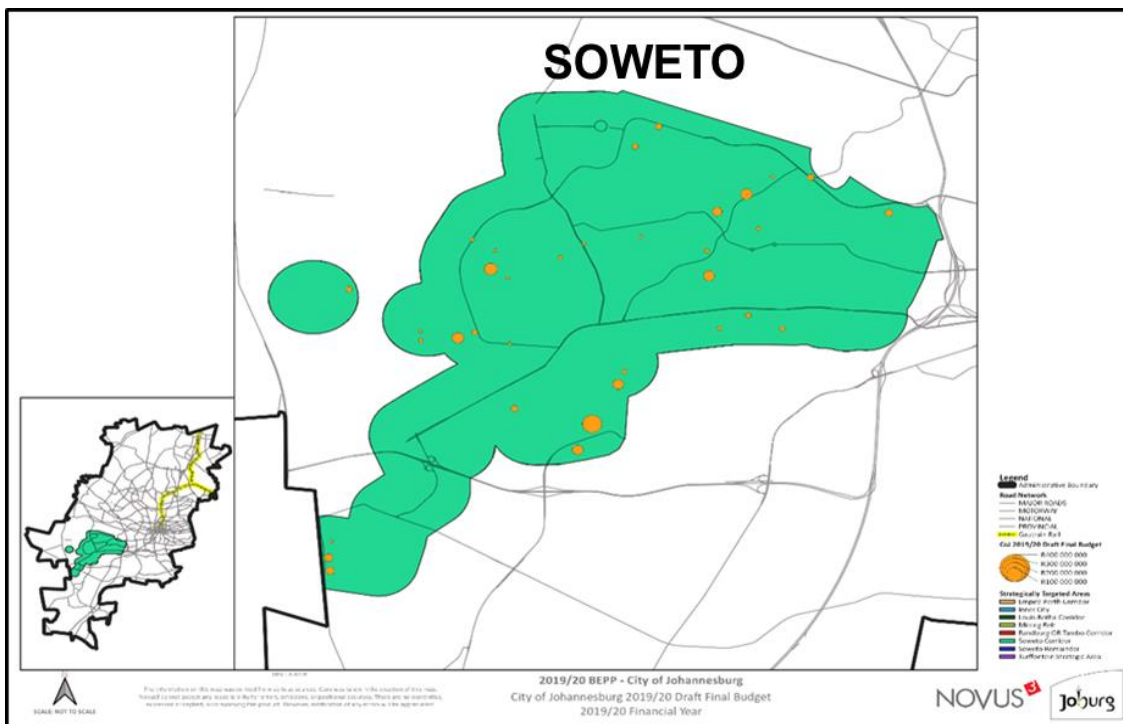
Map 28: Turffontein

The City is investing R 48 949 880 for the 2019/20 financial year.



Map 29: Soweto Remainder

The City is investing R507 124 000 for the 2019/20 financial year.



Map 30: Soweto

The City is investing R419 741 000 for the 2019/20 financial year.

Informal settlements related projects	2019/2020	2020/2021	2021 / 2022
Alex tributaries	R 1 269	R 647 649	R 1 928 921
Diepsloot West Reception	R 3 637 881	R 3 637 881	R 9 701 016
Doornkop/Thulani	R 40 332 521	R 18 639 868	R 20 665 043
Drieziek	R 30 000 000	R 30 000 000	R 0
Drieziek Ext.3	R 65 000 000	R 75 000 000	R 60 100 000
Drieziek Ext.5	R 40 000 000	R 10 000 000	R 0
Finetown Proper	R 28 907 318	R 0	R 63 403 383
Ivorypark - Zone 1	R 3 096 895	R 3 096 895	R 3 096 895
Kanana Park Ext.1	R 30 000 000	R 30 000 000	R 0
Kanana Park Ext.2	R 40 000 000	R 40 000 000	R 0
Kathrada	R 5 103	R 5 103	R 8 164
Mamtolo	R 0	R 0	R 75 306
Marlborough	R 0	R 0	R 142 204
Orange Farm Ext.3-6	R 0	R 20 786 000	R 0
Orange Farm Ext.7-8	R 50 000 000	R 50 000 000	R 50 000 000
Poortjie Proper	R 60 000 000	R 80 000 000	R 30 000 000
Princess Plot 44	R 146 934	R 102 854	R 117 547
Slovo	R 5 744	R 5 744	R 9 190
Vlaktefontein Ext.1,2,3	R 30 000 000	R 20 000 000	R 0
Vlaktefontein Proper	R 10 000 000	R 0	R 0
Vlaktefontein West (Lehae)	R 50 000 000	R 58 000 000	R 20 000 000
Zandspruit phase 2	R 373 915	R 1 578 795	R 11 478 279
Zandspruit Ext.10	R 15 057 254	R 10 756 845	R 673 495
Zandspruit transit Camp	R 7 860	R 13 628	R 7 860
Grand Total	R496 572 695	R452 271 261	R271 407 306

Table 17: Capex Allocation per Informal Settlements

Most of the informal settlements that received more attention in the 2019/2020 are categorised as category 3 of the Deprivation areas. The informal settlements such as Drieziek Ext.3, Poortjie Proper and Lehae will receive above 50 million in the 2019/2020 financial year. The infrastructure investment in such Informal settlements and marginalised areas focus mainly on housing, bulk water, sewer and electricity infrastructure as well as the

upgrading of gravel roads and improvement of the road network. In brief, the areas are targeted because the city aim at creating liveable neighbourhoods with high quality public amenities and environments that are well connected with economic opportunities in the urban centre and sub-centre out of them.

Deprivation area

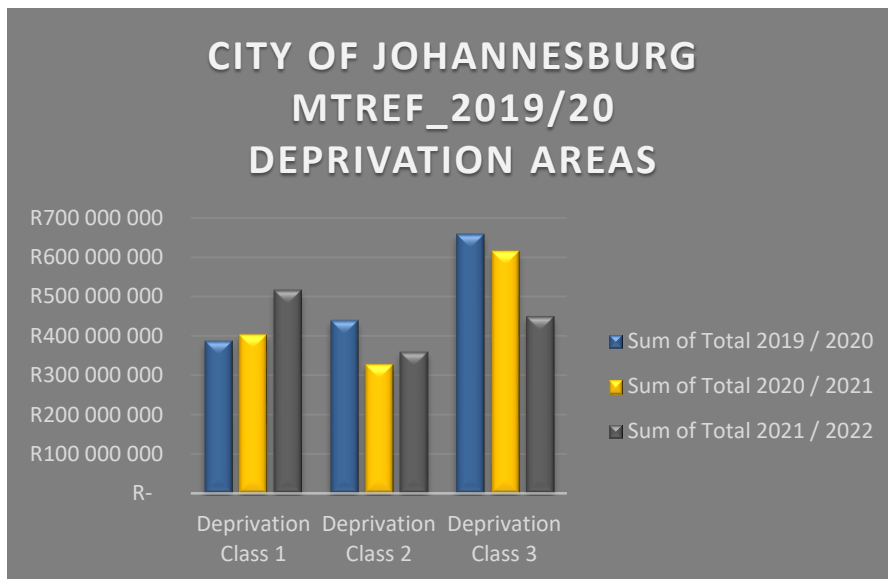


Figure 30: MTREF 2019/20-2021/22 budget for Deprivation areas

The Budget allocation in Deprivation areas for 2019/20 is approximately R1.5 billion, which indicates that indeed the City is committed in serving the needs of the people located in areas far away from economic activities. Classification of deprivation areas is defined in page 70.

Climate finance

There is demonstrable example to show that the City has dabbled with climate finance, but it appears the role to source this funding is not distinct. Johannesburg’s Climate Action Planning Strategic Appraisal highlighted climate finance as a key barrier to implementing climate actions in the City. The lack of dedicated capacity to pursue climate finance has resulted in uncoordinated, ad hoc efforts. In light of the City’s commitment to develop and implement a Climate Action Plan which aligns with the ambitions of the Paris Agreement there is a need to focus greater effort on accessing climate finance by institutionalising the function. To harness the power that the city has to source climate finance, the following ought to happen in terms of framing the role:

- Understand financing models mechanisms;
- Focus and perform project preparation;
- Understand municipal finance system;
- Understand climate change adaptation and mitigation;
- Understanding of how international/national city networks work;
- Understand the climate finance architecture;
- Understand existing local funding streams
- Mobilise City Departments and Entities to pursue climate finance opportunities.
- Establish partnerships with the private sector to leverage opportunities arising from public-private partnerships.

Climate finance has existed for over 2 decades, but financial flows to fund urban infrastructure projects have been dismal. The complex nature of climate finance does not help the situation. Below is a table attempting to rationalize the global climate finance complicated architecture (Bird et al, 2017).

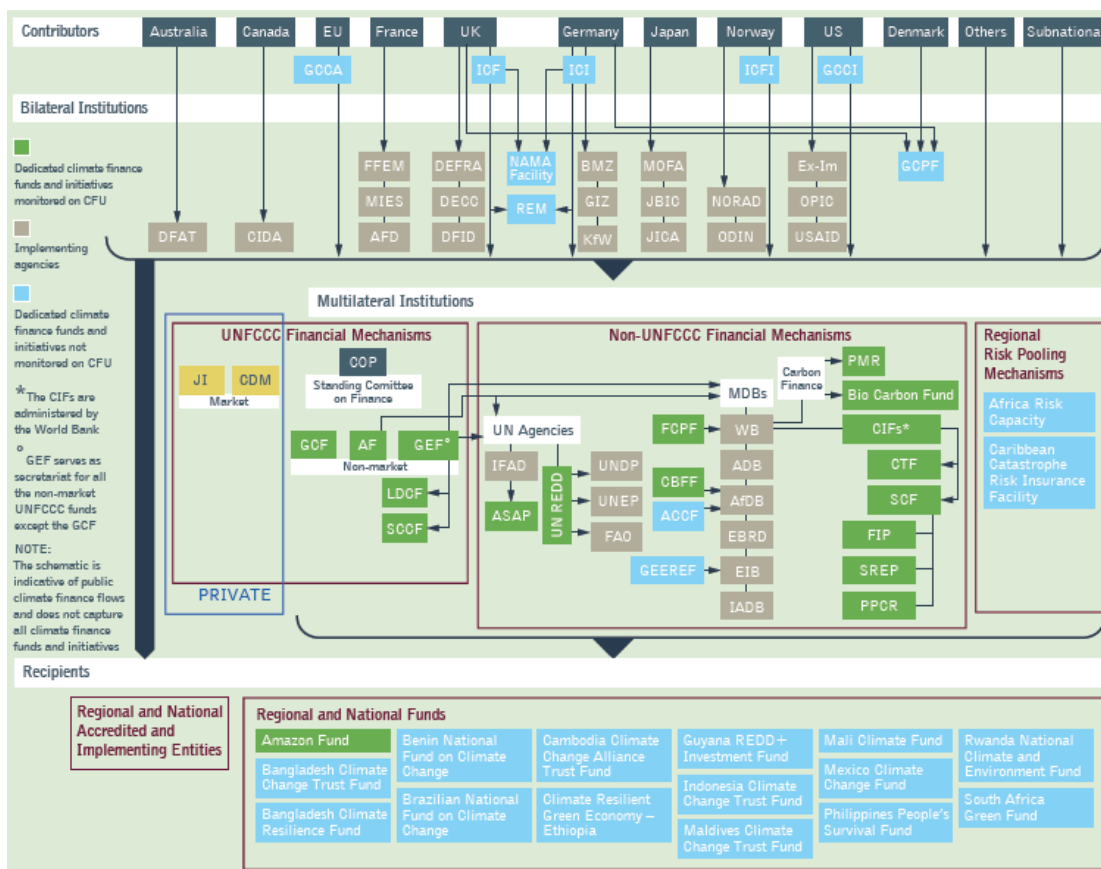


Figure 31: Climate finance

From this Figure 30 it is evident that rich nations are the lifeblood of climate finance.

Reflections on climate finance in the City of Johannesburg

Danish International Development Agency DANIDA

It can be said that Johannesburg has been able to attract climate finance in the past, all be it sporadically. At the early stages of urban climate change discourse, Johannesburg was part of an USAID sponsored *cities for climate protection* (CCP) pilot project. This was somewhat similar to the present C40 Climate Action Plan (CAP) process. It was an early start at climate action planning. This project didn't really gain much traction in the City. Later on, the City received funding from the Danish government (DANIDA) to perform climate proofing in Cosmo City. This was arguably the most visible climate change project of its time, where solar water geysers were installed on low cost homes. This project included other elements like installation of ceilings, planting of fruit trees and education and awareness.

Energy Efficiency Demand Side Management (EEDSM)

Another climate finance came in the form of the so-called Energy Efficiency Demand Side Management (EEDSM) grants from the Department of Energy. This is one of the few locally/government based climate finance utility that is almost readily available to the City.

Agence Française de développement (AFD)

When the French Development Agency (AFD) advanced a loan to the CoJ to, among other things, draft the city's SDF (that incorporated climate concerns) there was funding that was exclusively set aside to support the City's climate change strategy development process. Activities associated with this climate change funding included sharing of best practice with the City of Paris.

Global Environment Facility (GEF)

The City applied and got GEF funding with a suite of proposals that included low carbon and resilient corridors, food security and education and awareness. This is a huge project in the order of \$8m.

Greens Bonds

In 2014 Johannesburg pioneered climate finance by establishing green bonds to ensure alignment with the Joburg 2040 strategy for a resilient City. The issuance was to assist the City with a source of funding to improve and expedite its environmental solutions, and allow for the investors to demonstrate their commitment to environmental stewardship while receiving a positive financial return.. The city was the first among emerging cities to create green bonds, and it was no surprise that this initiative won a C40 award. At the time the city thought it was addressing the challenge experienced by many in accessing or leveraging climate finance. The World Bank supported the City's initiative, stressing that investors are increasingly looking at green bonds, with investments in these programmes tripling to \$35b between 2013 and 2014.

SECTION E: IMPLEMENTATION**E1. LAND RELEASE STRATEGY****Land Strategy: Transit Orientated Development Corridors (ToD)**

The City, through JPC, acquired some properties on a willing buyer/willing seller basis within the Louis Botha and Turffontein Corridors. A decision was taken in 2018 that the land acquired must be packaged (i.e. town-planning processes must be completed including consolidation of properties and rezoning in line with approved spatial plans), before the land is to be released on public tender.

Johannesburg Property Company has acquired 84 properties along the Louis Botha and Turffontein Transit Orientated Development (TOD) Corridors within a three year period (2014-2017), 70 of those properties are to be released to the private developers with development rights that enable the intend development strategy. The other 8 properties will be allocated to municipal entities and the remaining 6 properties will be allocated to the private sector without amendments to the existing development rights. The main intention of acquiring the properties in the Louis Botha and Turffontein TOD Corridors is to ensure the development of quality mixed income housing, with a specific focus on affordable housing for City of Johannesburg citizens, that is well-located, close to public transport networks, and easily accessible to job opportunities, with a range of mixed-use developments and social facilities to create well balanced communities. In brief, the overall strategy for the 84 properties at disposal to the City is to catalyse higher density affordable housing developments in support of an efficient and effective Transit Orientated Development (TOD). In order to achieve the strategy all properties needs to be packaged before released.

The packaging of the land (rezoning and consolidating it) before releasing it for development is an important part of the strategy, otherwise the investment potential would not be optimized and the City's long term financial income and sustainability will be affected negatively. Unpackaged land will negatively affect the private sector's ability to provide the main type of development that these properties were acquired for affordable rental accommodation. Last year (2018) JPC and Development Planning prioritised the packaging and release of acquired properties to stimulate economic growth through private sector investment. The Land release strategy is aimed at ensuring maximum economic and social return on investment for the City. If the properties are released for best use as identified in the TOD plans, it will result in:

- Direct investment of the private sector
- Increased GDP in the construction industry
- Increased job creation: both direct and indirect
- Increased urban values (increased property rates)
- Socially and economically inclusive developments

In addition to this, if the strategy includes release to upcoming smaller black entrepreneurs, it will result in growing local enterprises. Releasing the properties can also address the City's pro-poor agenda, through realising the potential of delivering large number of affordable housing units for the low to lower middle income market:

- Especially if land is rezoned for development before release
- When land is released with conditions (such as specific development targets for affordability)

E2. PROCUREMENT APPROACH

Supply chain management and procurement plan

The City has a Supply Chain Management Policy adopted in terms of Section 111 of the Municipal Finance Act (56 of 2003) and speaks to the City's processes and procedures relating to the procurement of services. Since its adoption by Council in 2006 the policy has been updated a number of times through Council resolution.

While the details of the policy have changed the broad framework of the policy remains. The Policy sets out the Institutional arrangements for supply chain management within the City including the delegation of supply chain management powers and utilities, sub-delegation, reporting requirements and performance management.

In addition the policy provides:

- A system for acquisition
- Procurement mechanisms for goods and services
- General conditions applicable to the consideration of written quotations
- Circumstances whereby deviations from the procurement mechanism might be considered
- Details for the nature and functioning of the Supply Chain Management Committee System
- Details for supply management and development
- Procedures for penalties for abuse of the supply chain management system
- Procedures for Inventory Management
- Procedures for Asset disposal
- Procedures for Risk Management.

E3. REGULATORY REFORMS

In most cases, particularly in developing countries, municipalities are dependent on government grants which are not sufficient to address Sustainable Development Goals (previously known as Millennium Development Goals). National Treasury is emphasising that the national public funding envelope is shrinking and municipalities must leverage alternative sources of funding to meet their investment needs. To the City of Joburg, this means that the city needs to re-evaluate how business is done to attract investments. Regulatory reforms are therefore required to stimulate investment or remove barriers to investments in municipalities. According to the World Bank, municipalities are encouraged to establish innovative ways to compete economically and attract investment.

Dealing with Construction permits

A construction permit is an official approval from the local government or agency that allows a contractor to proceed with a construction project? It is to ensure that the project plans comply with local standards for land use, zoning and construction. The standards are intended to ensure the safety of current and future owners and occupants and provide enforcement of zoning and land use policies.

To obtain a construction permit, a process needs to be followed to ensure that all relevant departments affected provide inputs, the public is protected from faulty building practice and proper permits are issued. It is often viewed or even experienced by developers that the procedure followed is too complicated or costly. In 2015 the city of Johannesburg had a 141 days (4months and 2weeks) turnaround time on construction permits, which is viewed to be lengthy and would be discouraging to a potential investor. The City deliberated on key interventions as stated below to deal with this issue.

Key interventions:

- **Peer learning review:** premised on an appreciation of the complexities of local government in ensuring legislative compliance and operating efficiencies. Different municipalities excel in different aspects of executing their responsibilities. in this aspect city of Joburg will engage with comparable peers to learn, benchmark and test envisaged system and process interventions
- **Re-engineering for efficiency:** this will sharpen the City” views of the customer experience and on the basis of that introduce re-engineer identified processes and workflows. There are 3 critical customer touch point which re-engineering will focus on:
 - **Plan submission:** entails finalization and dissemination of a new submission
 - **Plan administration:** plan management system, IT support, client communication
 - **Building Inspection and issuance of occupancy certificate:** quality assurance in building inspections and reinforcing quality control
- **Business Interoperability and interfacing:** based on the appreciation of the complex governance model introduced by the city being organized with Municipal Owned Entities and the need to streamline the back office interface between various city Departments and MOEs without burdening the client with having to navigate these complexities.
- **Delegation of Authority and risk classification:** the City will reconsider, confirm and communicate its system of delegation of authority and responsibility. This will be informed by legislative requirements as well as operational consideration. An important step in this will communicating key accountability points to the public in order for clients to direct their queries and or requests for interventions appropriately and efficiently.

- **Decentralisation:** given that the city has 7 administrative regions, the intervention will explore and set in motion a process of decentralizing the plan submission and approval process.
- **Going Digital:** this is for client to be able to submit electronically and for the city to process and finalise plans on the same platform. The City has a strong GIS capabilities and as such using geo-referenced site inspections technology is goal within reach.
- **Human Resource Capacity:** there are 3 sub-interventions to this point
 - **Continued management support**
 - **Culture and change management**
 - **Skills development:** focus on targeted skills development interventions, entails training and exposing key personnel to cutting edge developments in the industry.
- **Document Standardisation:** will encourage familiarity and ease of understanding and use by clients and staff. This includes pre-submission checklists, application forms, schedule of required documents, processing clock etc.

Dealing with Electricity

According to the World Bank Enterprise Surveys (2017): 31% of firms worldwide identify access to electricity as a major constraint. The lack of access to electricity and unreliable supply is the fifth biggest obstacle faced by firms worldwide. The city of Johannesburg is continually growing in terms of population size and this puts pressure on existing engineering infrastructure which is not dealt with will affect businesses in the city. With this in mind Johannesburg City power has outlined the reform action plan as follows.

Key intervention:

- **City power new connections:** for connections of this nature where the area is already zoned and reticulated for the desired capacity, it is possible to remove the design fee step and submit the final quote. This will reduce the number of payments from 2 to 1 and also result in a saving of 7 days in the procedure.

Dealing with registering property

Property registration is essential for asset management, it records matters concerning ownership, possession and other rights. Registered property enables increased financing and growth. Secure property rights lead to increased investment with greater credit potential and more affordable finance. Unregistered property is dead capital, real estate holders will not risk investing on the property as it possess risk on lenders and government loses out on tax income. The City of Joburg has deliberated on the following key intervention to ensure that the process of registering property serves the public better and is able to attract potential investors.

Key intervention:

- Implement a fully automated clearance process
- Implement a fully automated refund process
- Revised staffing structure
- Improving success rate of system interfaces from land information system (LIS) to the billing system or specifically the deeds and valuation update interfaces. This will reduce processing timeframes for the Land Transfer process and will also allow the refund of overpayment in a shorter timeframe. The interfaces success rate is currently at 60% and interface error require extensive manual intervention which extends processing time frames.

The identified interventions mentioned above will improve the general doing of business by the municipality. It will also improve the people's view of the functioning of the Municipality which will indirectly impact on their willingness to pay their rates and taxes. This will further invite investors into the space since there is ease of doing business in the Municipality. These interventions will also improve the way in which the city is collecting revenue.

Evidence of key land use management interventions.

- **Development mechanisms**

The City of Johannesburg has identified the development of the Corridors of Freedom as one of its key priority programmes in order to facilitate spatial restructuring in an interventionist manner. The intention is to optimise development in and around high intensity movement corridors in order to create more inclusive and accessible opportunities for the residents of Johannesburg and create places and spaces that are intense and attractive to investors and future residents alike.

As part of achieving the desired outcome to implement the Transit oriented Corridors, the formulation of development mechanisms was identified as a critical action to enable accelerated achievement of the development vision. The main aim of the development mechanisms is to incentivise, enable and fast-track development within the corridors. The Special Development Zone was identified for short term implementation. The mechanism is premised on the concept of proactive zoning whereby the developers do not have to undertake the technical studies or processes such as motivating and advertising which are ordinarily required in the development application processes, specifically rezoning processes. The city is piloting this innovative mechanism in three priority precincts namely: Orange Grove Precinct in the Louis Botha Development Corridor as well as Brixton and Knowledge Precincts in the Empire Perth Corridor. This will be prior to rolling it out to other priority precincts within the corridors (see 2018/19 BEPP).

SECTION F: URBAN MANAGEMENT**F1. URBAN MANAGEMENT**

Urban Management relates to the Municipality's responsibility for the day-to-day operations of the City, effective Urban Management also requires the involvement of the private sector, and of neighbourhood or community organisations.

The South African Cities Network SACN (2009) suggests that the functions of urban management in relation to the private sector include:

- Demarcating and regulating private spaces and ensuring that these spaces are clearly defined and demarcated;
- Service private spaces with connections to essential public services and utilities, such as water and electricity, maintain these services, and ensure that payment is made for such services.

Failure of the above has implications for property values and the ability of land and building assets to fulfil their potential value.

In terms of public spaces, the SACN suggests three primary functions of effective Urban Management:

- Regulate public spaces and maintain their public nature/utility;
- Improve, enhance and maintain public spaces and infrastructure, including public spaces, sidewalks, roads and parks;
- Govern public spaces through government, private and community inputs.

Failure to carry out these functions could result in public spaces becoming increasingly dysfunctional and alienating, with spaces becoming contested, or dormant.

Pernegger (2008) has suggested concept of Urban Management that sees a bottom level as consisting of simple, but highly visible, management functions, such as cleaning of storm water channels, fixing potholes and removing litter.

A second level deals with the enforcement of bylaws such as illegal dumping and informal trading, both of which have had a significant impact in the Turffontein Study Area.

The third level is about policing and crime prevention, whilst the highest levels are concerned with place-making and marketing the managed area to outsiders.

The shift from the lower levels (Getting the Basics Right) to the higher levels (Offering a Premium Service) requires not only increased budgetary allowances, but also a more integrated and focussed approach to service delivery, which itself is a challenge given the multiplicity of operators and service providers involved. The success of the identified integration zones and urban hubs is dependent on the success of Urban Management Systems provided by the private sector and local government.

The City has begun a process of redesigning the Area Based Management Framework (ABMF). The framework is a governance tool through which CRUM will support management and maintenance of public assets and ensure safe quality service provision in the region. In parallel to this, the private sector has provided urban management strategies

through the development of City Improvement Districts (CIDs); CIDs follow similar principals to Pernegger (2008). It is therefore essential that the day-to day management ensures that the mixed-use, higher density, vibrant areas function well.

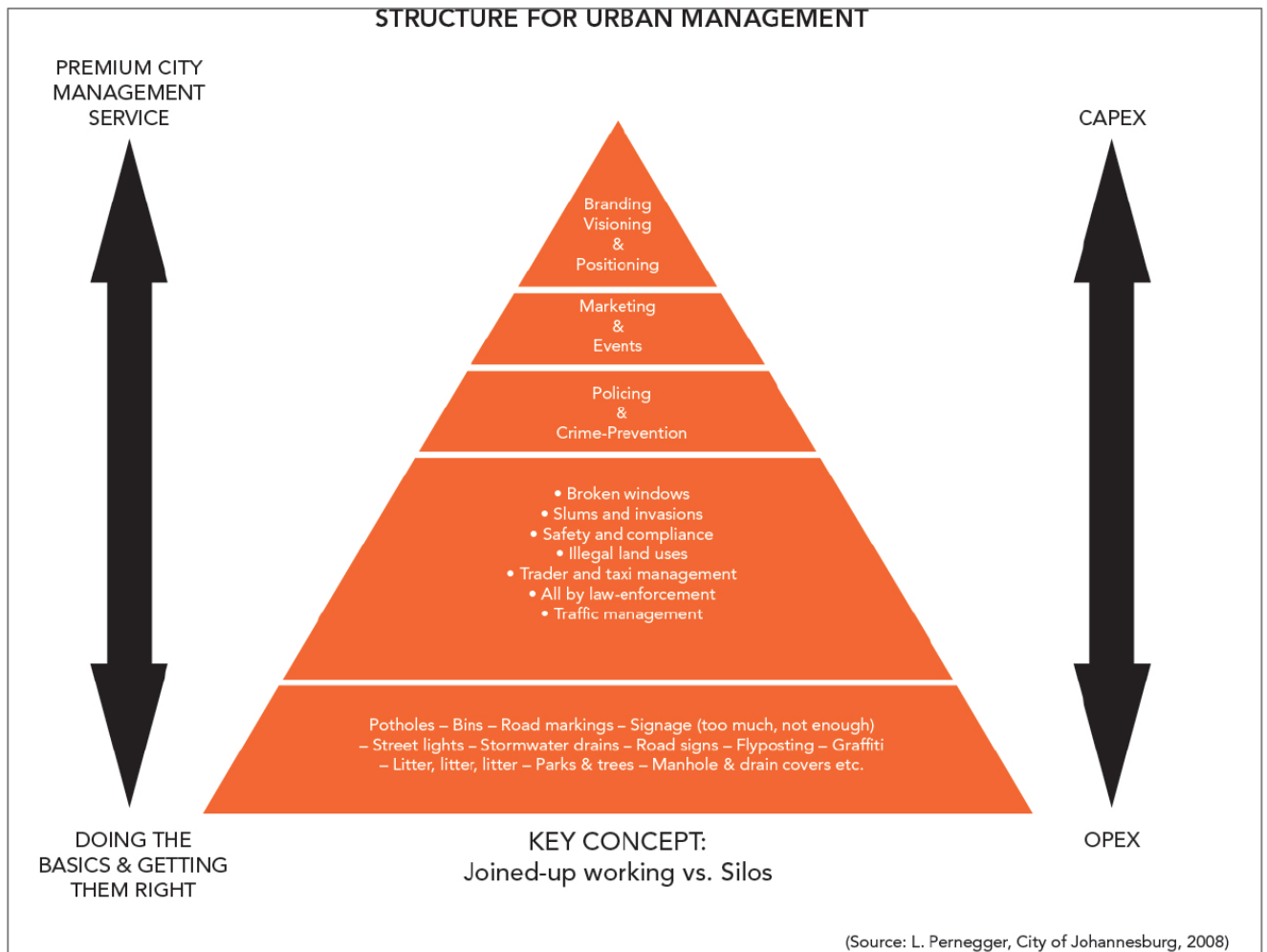


Figure 32: Structure for Urban Management of the Corridors

The ABMF is highly dependent on intergovernmental relation which plays a role in the design, implementation and development, maintenance and management of the area with a focus on safety. The framework reflects on the issues raised by those affected in the area, whether public or private stakeholders, and will then attempt to find through a collective method by the various stakeholders, a way forward for addressing any developmental or management challenges.

The ABMF will over time, the proposed period is in the medium term, become a business plan for management of the area as soon as solid partnerships have been established between the stakeholders and interested and affected parties. For example, the Louis Botha Avenue Corridor ABMF focuses on local area 3, which includes Orange Grove, Fellside, Mountain View and Orchards. Through analyses and guidance from the Strategic Area Framework, the ABMF seeks to achieve the following:

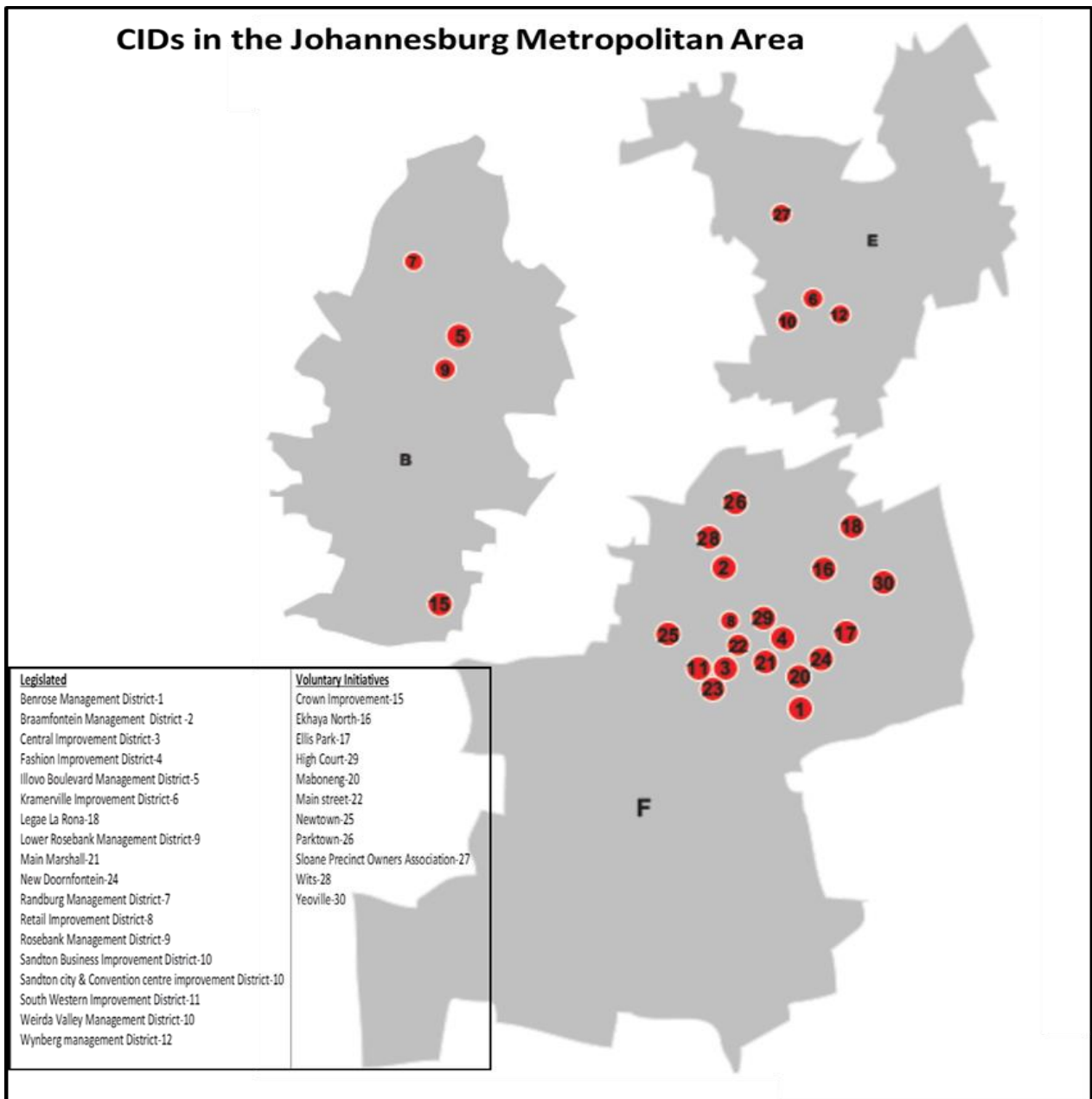
- Investment in bulk infrastructure

- Releasing and developing municipal land
- Expanding and improving public transit infrastructure and facilities
- Investing public funds in public environment upgrading
- Development of privately owned properties into intensive mixed land uses
- Place making interventions
- Increasing land value capture around transit facilities
- Activation through programming and community mobilisation
- Safe efficient and sustainable public spaces and transit hubs

In achieving the above objectives, the ABMF is to outline actions that will be taken in the short to long term interventions and actions as decided upon by the stakeholders and role players. The short term actions of the ABMF for local area 3 include addressing traffic congestion, engineering issues associated with road diversions, liquor outlets/restaurants/pub enquiry and education campaign, town planning law enforcement case consolidation and building control case consolidation.

The City's urban management strategy within the integration zone is slightly different to what the private sector offers through CIDs. CIDs are geographical areas in which the property owners determine and agree to fund supplementary and complementary services to those normally provided by local government in which to maintain and manage the public environment at a superior level and thus enhance the investment. Supplementary services include safety and security patrol officers, pavement cleaning, litter collection, maintenance of public space and removal of illegal posters amongst many other services. Whilst complementary services might include heritage initiatives, tourism initiative, informal sector strategy, precinct plans and city policy business attraction, branding, marketing the CID precinct area and where possible CIDs work closely with council to find effective solutions to parking and traffic solutions (Kagiso Urban Management). The City of Johannesburg's CIDs are voluntary CIDs predominantly located within the city's growth nodes such as Sandton Improvement District, Braamfotein Improvement District, Upper and Lower Rosebank Improvement District are a few amongst many others.

The municipality is working together with the Johannesburg City Improvement District (CID) Forum which represents and promotes Sustainable Place Management and Urban Management institutions, initiatives and individuals throughout Johannesburg. In this forum, City Improvement Districts in Johannesburg can share information, follow international trends and keep track of issues that have an impact on City Improvement Districts as a collective. Each City Improvement District is unique but collectively they are all affected by the decisions of Council and the public sector. CIDs in Johannesburg are currently managed as voluntary initiatives following the 2015 Supreme Court of Appeal judgment in the case of Randburg Management District vs West Dunes Properties. Voluntary establishment has no standing or legislative backing and thus is reliant on the goodwill and consistency of its constituent property owners to remain viable. COJ took the decision in June 2016 that Management Districts should be legislated under Section 22 of the Municipal Property Rates Act, 2004 (Special Rating Areas) and are therefore establishing a new Special Rating Area By-Law and Special Rating Area Policy which is in the process of being approved by council.



Map 31: CIDs in City of Johannesburg

A Re Sebetseng programme

The city has adopted a programme called A Re Sebetseng which means “let’s work’ – as a component of the city’s urban management programme. It is a monthly Johannesburg city-wide cleaning campaign. The campaign strives to create a cleaner and safer environment by encourage all of Johannesburg residents to take care of the spaces around them. A Re Sebetseng seeks to promote a culture of reducing, re-using, and recycling waste to ensure that Johannesburg becomes one of the cleanest cities in Africa.

The campaign takes place on the third Saturday of every month and in line with the City’s by-laws which aims to address issues of littering, illegal dumping, and overloading of bins

that cause dilapidation of open spaces and lead to the manifestation of pests. The campaign is facilitated by Pikitup, but it is the responsibility of all Councillors, city departments, and regional offices to drive the programme. Plastic bags and gloves are distributed at walk-in centres, clinics, libraries, and participating businesses. Filled bags are collected on the same day by Pikitup.

Operation Buya Mtheto

Operation “Buya Mtheto” was launched on the 18 October 2018. The operational plan has broad objectives, which are necessary to achieve the vision of a city which is safe for all the Region F residents and business. The operation’s main focus is to ensure that by-laws are adhered to by all in the City and that the rule of law becomes the order of the day. The City will be working with all law enforcement agencies across all wards of the city and conducting spot “raids” on a daily basis to ensure law breakers are brought to account. This will include an aggressive focus on collecting monies from accounts that are in arrears, preventing illegal connections, guaranteeing residents’ safety through upholding by-laws, and ensuring strict financial oversight with regards to credit control policies. It affirms the current administration’s commitment to restoring respect for the rule of law in the City. It is a joint operation by all key City departments including Disaster Management, Environmental Health, Social Development, Infrastructure Services, the City’s legal department, Development Planning, and JMPD to name a few.

In the 2016/17 financial year the City embarked on initiatives to recruit 1500 new JMPD officers; have a cleaner inner city; functional road and traffic signage and increasing the number of building and environmental health inspectors which are still continuing. Nonetheless law enforcement still needs to be strengthened in outdoor advertising, vandalism and theft of the City’s infrastructure, and bypassed meters. The City has elevated the levels of service delivery through extending operating hours in clinics and libraries; capacitation of the Johannesburg Roads Agency amongst others. Through the Group Forensic Investigation Services, we remain committed to effectively dealing with corruption and fraud.

These are complemented by the game changers we have identified through the Diphetogo. The 2018/19 budget is centralized around three core principles:

- Strengthening the existing revenue capacity and fiscal efforts by improving the culture of payment, ownership of revenue activities, efficiency of customer service and improving meter reading performance throughout the city;
- Improving the capacity to spend especially on grant funding in the implementation of the City’s capital programme; and
- Managing the cost of governance in relation to the implementation of programmes and intensifying austerity measures in both the operating and capital budget planning processes;

Institutional Arrangements and Capital Budgeting Process

In 2006, the City implemented a governance model that separated legislative and executive functions. The intention was to provide better oversight of the executive by the legislature through a clear delineation of powers.

Legislature

The City's legislative functions include the approval of by-laws, policies, the IDP of the City, tariffs and the City's budget. The council, led by the speaker, also seeks to ensure community and stakeholder participation. Ward councillors and elected ward committees through the Office of the Speaker facilitate the City's participatory processes. Finally, the legislature provides an oversight function through the work of Section 79 committees. The committees determine priority areas for oversight which is guided by the Mayoral Priorities. Other measures of oversight include the use of questions by individual councillors to hold the executive to account, as well as the use of motions to ensure debate on critical issues.

The Executive

Integration and implementation of institutional action through coordinated strategies occurs through the Executive.

The Executive includes:

- The Executive Mayor and his Chief of Staff,
- The Members of the Mayoral Committee (MMCs) assigned to individual sector departments, who together with the Mayor form the link between the executive and the legislature
- City Manager and Group Functions
- Departments,
- Municipal Owned Entities and their Boards.

In order to facilitate improved City governance the City is in the process of undertaking an institutional review of the Executive. Phase one (2011) focused on the high-level design of the City and ensuring alignment of the city's structure to the City's long-term strategy (Joburg 2040) and dealt with the institutional arrangements (i.e. number of departments and municipal owned entities, respective mandates and the interface thereof). It intended to strengthen accountability, oversight, corporate governance and leadership visibility, enhance service delivery and strategy alignment.

Phase two of the institutional review is currently underway and focuses on putting the high-level design into operation. Under this phase departments are aligning to the new high-level design. This phase also focuses on the restructuring of the entities so as to ensure that all legal and compliance requirements are fulfilled.

Aspects of the institutional review that specifically seek to improve coordination and planning within the executive have focused on introduction of Group Functions and Clusters.

Group functions play an oversight role to sector departments or municipal owned entity's activities. The Offices act as strategic partners to the sector departments and municipal owned entities with an emphasis on providing strategic leadership and ownership of associated group policy, ensuring standardised implementation of functions and the oversight of the drafting of relevant policy, guidelines and standards.

The **Group functions** that have been established are:

- The Group Chief financial officer
- The Group Corporate and Shared Services (human resources, labour relations Office of the Chief Information Officer/Information Technology)
- The Group Strategy Co-ordination and Relations responsible for oversight, co-ordination and management of the key group policies (including the Integrated Development Plan), strategies and tactical plans to ensure effective and optimal service delivery.
- Group Communications and Tourism
- Group Legal and Contracts manages legal issues such as setting legal and contracts policy
- The Group governance function which provides support in protecting the City's interests with regards respective municipal owned entities.
- The Group Assurance Services has two clear and distinct functions: audit and forensics and risk and compliance.

The **Cluster approach** is intended to coordinate the City's programmes around a set of outcomes outlined in the Joburg 2040 strategy and the 9 Mayoral priorities in order to integrate service delivery. Functions of the clusters include:

- Identifying priority multi-sectoral programmes for co-ordination and integration
- Ensuring overall co-ordination and alignment of service delivery between departments and municipal owned entities within the cluster
- Providing guidance and oversight in the implementation of service delivery programmes
- Overseeing the development of business plans for cross sectoral programmes
- Overseeing the allocation and use of resources for identified programmes
- Monitoring the progress and impact of identified programmes; and
- Advising the mayoral committee on progress in the implementation of service delivery programmes within the respective clusters.

F2. INSTITUTIONAL ARRANGEMENT

The institutional arrangements for disaster management planning which includes the assignment of primary and secondary responsibilities for priority disasters posing a threat in the City. The plan provides the broad framework within which the City's Departments will implement the disaster management planning requirements of the Act and other Municipal Entities (ME's) included in the organisational structure of the City such as JDA and Joburg Water. Moreover, it establishes the operational procedures for disaster reduction planning as well as the emergency procedures to be implemented in the event of a disaster occurring or threatening to occur in the City. It further aims to facilitate an integrated and coordinated approach to disaster management in the City which will ensure that the City achieves its

vision for disaster management embedded in the GDS 2040 which is to build resilient, sustainable and liveable communities.

The Disaster Management Plan is in line with the National Disaster Management Framework and addresses disaster management through four key performance areas (KPAs) and three Enablers:

- KPA 1: Integrated Institutional Capacity for Disaster Risk Management
- KPA 2: Disaster Risk Assessment
- KPA 3: Disaster Risk reduction
- KPA 4: Response and recovery
- Enabler 1: Information Management and Communication
- Enabler 2: Education, Training, Public Awareness and Research
- Enabler 3: Funding arrangements for Disaster Risk Management

The plan provides a background of the CoJ in line with its current (IDP) and GDS 2040 Strategy. The City of Johannesburg DMP contains risk assessment based on field study, observation, primary- and secondary data sources. The City's DMP has as far as possible been imbedded in the current reality of the municipality. The risk assessment provides the foundation towards risk reduction planning based on the identified and prioritized disaster risks and vulnerabilities of the communities of Johannesburg. This DMP also provides the City with a guiding framework for future disaster management planning by the municipality as a whole as required by the Act and the Municipal Systems Act No. 32 of 2000. The relationship between, and different roles and responsibilities of, the Departments in the City and Municipal Entities are highlighted. The plan also gives guidance in relation to the declaration of a local state of disaster, disaster classification and the institutional arrangement necessary for the successful implementation of the Act. It contains a number of recommendations in each section, which need to be considered and implemented in order for the CoJ to obtain the results envisaged by the DRMP.

Disaster Management Risk Directorate acts as an advisor to the Executive Mayor and the City Manager on issues pertaining to disasters and consequences including the well-being of the communities of Johannesburg.

SECTION G: REPORTING AND EVALUATION**G1. REPORTING**

This section discussed the framework for measuring progress in achieving a quality built environment within the City of Johannesburg. It presents the broader set of indicators provided by National Treasury.

The BEPP planning process is “outcome-led” in that it responds to agreed indicators and targets for improved built environment performance. The City of Johannesburg is part of the development of the BEPP indicators. The indicators are subject to refinement by National Treasury in collaboration with the municipalities. A set of five outcome areas, together with general results statements and associated indicators to measure performance against them, have been defined (Table 18: Integrated outcome and results statement).

Table 18: Integrated Outcome and Results Statement: Indicators not reflecting in Circular 88

CODE	INDICATOR	CATEGORY	Baseline year	Baseline value	Feb-01	2011/12	16/17	17/18	18/19 target	19/20 target	20/21 target	Notes
WG13	Percentage change in the value of properties in Integration Zones	CITY	2008	11.45% p/a	no data	11.45% p/a	11.45% p/a	11.45% p/a (estimate)	11.45% p/a (estimate)	11.45% p/a (estimate)	11.45% p/a (estimate)	This includes, using shapes from the SDF 2040, all blue priority transformation areas, including the mining belt. It uses property values from the City of Johannesburg valuation rolls from 2008-2013 and the following roll, 2013-2018. It uses the most recent value for each property in these rolls, with the 2013-2018 roll extracted in November 2017. For the consolidation zones, the average value per square metre was calculated for each period, and then the growth between the two periods was calculated. This calculation uses only two values, 2008 and current (in 2013 values) and projects the values in-between and after using a straight line growth rate. Change was calculated from 2008 to 2013. Note that for each roll, they are in 2008 and 2013 prices respectively, as the data is captured. As only two values are available, all values for growth rate per year are assumed to be the same
CC1	Hectares approved for future development outside the 2015 urban edge as a percentage of Hectares allocated for future development as defined by the 2015 MSDF	CITY	2007/08	Ratio A: 0.56% Ratio B: 0.004%	no data	Ratio A: 2.02% Ratio B: 0.01%	Ratio A: 0.01% Ratio B: 0.001%	Ratio A: 0.132% Ratio B: 0.035%	0%	0%	0%	For this, the Urban Development Boundary from the 2016 SDF was used (which is almost identical to the previous SDF, with one minor change (see last page of the SDF 2040). Data from the town planning application system (TAS) was used with only approved applications, and only new township establishments and rezonings included. Properties whose centre is outside the UDB were used for the selection. Two calculations were done for each year. The first (Ratio A), is the area of approved applications outside the UDB / Area Approved in whole city and the second (Ratio B): area approved outside UDB / Total area of CoJ excluding UDB
CC2	Number of land use applications processed in integration zones as a percentage of the total number of land use applications submitted city-wide	CITY	2007/08	15,28%	no data	22,77%	21,40%	23,2%	25%	25%	26%	This includes, using shapes from the SDF 2040, all blue priority transformation areas, including the mining belt. The data used was from the Town Planning Application system, including all application types. It is worth noting that while the percentage may seem low, the blue priority areas used (from the SDF) make up 14.8% of the area in the city, and excluding the mining belt (where only 2.4% of all applications have taken place over the last 10 years) the area is only 8.32% of the CoJ area. This means that there is a significant concentration of development applications within the Transformation Zone.
CC3	Number of building plan applications processed in integration zones as a percentage of the total number of building plan applications city-wide	CITY	2007/08	15,51%	no data	14,95%	12,43%	12%	14%	15%	16%	This includes, using shapes from the SDF 2040, all blue priority transformation areas, including the mining belt. Data is from the Building Application System, and the data is only available from 2007. The analysis includes all building applications processed, whether they were approved or not. Note that for 2016/17 the data were updated, as the previous BEPP didn't contain the full record for that financial year.
IC1	New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide	CITY										We must ask housing for this data

CODE	INDICATOR	CATEGORY	Baseline year	Baseline value	Feb-01	2011/12	16/17	17/18	18/19 target	19/20 target	20/21 target	Notes
IC2	Gross residential unit density per hectare within integration zones	CITY	1996	14.77 households per ha (1477 per km2)	20.1 households per ha (2010 per km2)	21.22 households per ha (2122 per km2)	21.22 households per ha (2122 per km2)	21.22 households per ha (2122 per km2)			25 households per ha	This includes, using shapes from the SDF 2040, Soweto Blue Zone, Corridors of Freedom (Louis Botha, Turffontein and Empire-Perth), Inner City, Sandton Node, Randburg Node, Randburg-OR Tambo Corridor (excluding Sandton and Randburg). It uses Census household data obtained from quanec at the Sub Place Level, apportioned to the SDF shapes. If the Mining belt is included, it brings the households per ha down to 9.39, 12.97 and 15.13 for the three census years. Data here is limited because of the census data
IC3	Ratio of housing types in integration zones	CITY										Data Unavailable
IC4	Ratio of housing tenure status in integration zones	CITY	2001/02	73552 : 37467 : 141400 : 43377	73552 : 37467 : 141400 : 43377	85981 : 33665 : 179818 : 70085	85981 : 33665 : 179818 : 70086	85981 : 33665 : 179818 : 70087				Here, Census 2001 and 2011 data was used, and joined to the shapes from the Blue Zone, SDF, including the Mining belt. The join was done using "union" in arcmap, with percentage overlaps of wards and the transformation zone. Only two years are given, as the community survey 2016 is only available at a citywide level. The community survey 2006 gives the following ration citywide: 705580 : 251759 : 540727 :
IC5	Ratio of land use types (residential, commercial, retail, industrial) in integration zones	CITY										Data unavailable
IC6	% households accessing subsidy units in integration zones that come from informal settlements	CITY										Data unavailable
IC7	Number of all dwelling units within Integration Zones that are within 800 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones	CITY	2016/17	61,60%		61,60%	61,60%	61,60%			70,00%	This includes (for integration zone), using shapes from the SDF 2040, Soweto Blue Zone, Corridors of Freedom (Louis Botha, Turffontein and Empire-Perth), Inner City, Sandton Node, Randburg Node, Randburg-OR Tambo Corridor (excluding Sandton and Randburg). It uses Census household data 2011 obtained from quanec at the Sub Place Level, apportioned to the SDF shapes. It includes Rea Vaya stations, Phase A, B and C (although phase C is still under construction), Prasa Stations and Gautrain Stations. If the Mining belt is included, it brings the percentage down to 40.5% .
IC8	Percentage share of household income spent on transport costs for different household income quintiles city-wide	NATIONAL										
IC9	Capital expenditure on integrated public transport networks as a percentage of the municipal capital expenditure	NATIONAL										
IC11a	% learners travelling for longer than 30 minutes to an education institution	NATIONAL										
IC11b	% of workers travelling for longer than 30 minutes to their place of work	NATIONAL										
PC4	Commercial and industrial rateable value within integration zone for a single metro as a % of overall commercial and industrial rateable value for that same metro.	CITY	2008/09	39,19%	39,19%	39,19%	41,21%	42% (estimate)	43,00%	44,00%	45,00%	This includes, using shapes from the SDF 2040, all blue priority transformation areas, including the mining belt. It uses property values from the City of Johannesburg valuation rolls from 2008-2013 and the following roll, 2013-2018. It uses the most recent value for each property in these rolls, with the 2013-2018 roll extracted in November 2017. All properties that intersect the transformation zone were included in the transformation zone calculations. To classify the data, the valuation "use" was used rather than zoning. This is in that zoning often doesn't reflect the actual use, or zonings such as "special" do not give a true indication. The valuation uses group commercial and industrial together under "business and commercial"; "multiple purpose business"; and "sectional title business" and thus these were the categories used.

The city is still in the process of obtaining some of the information which will assist in populating data for all of the indicators as prescribed. It is envisaged that in the next update of the BEPP the data will have been gathered and reliable reporting on the indicators will commence. As noted above some of these broader built environment indicators are captured in Circular 88 attached as annexure A.

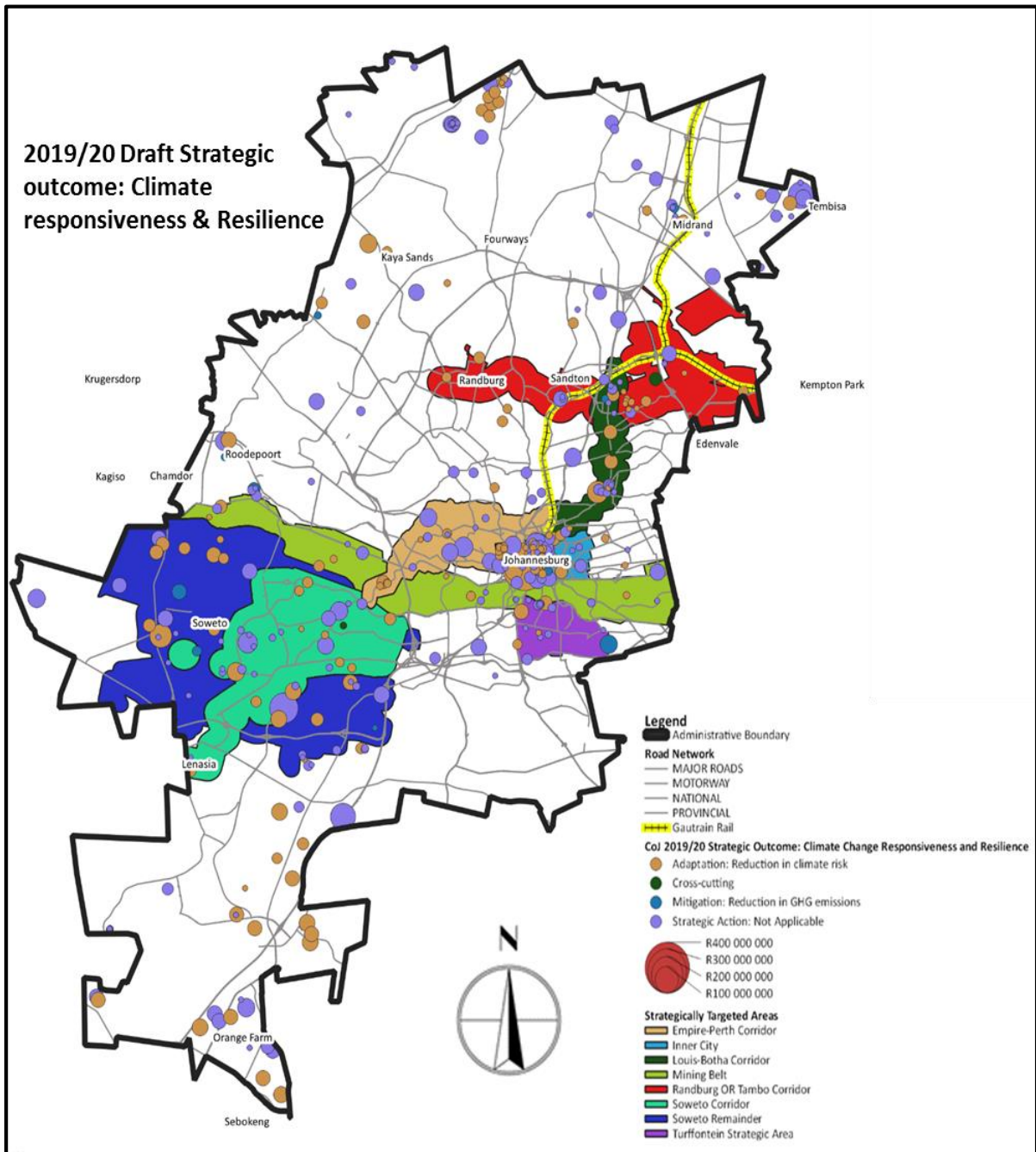
G2. EVALUATION

Evaluation of the city's performance

The City is indeed addressing the mayoral priorities as identified. It is evident from the budget allocation for capital projects that seek to achieve 9 mayoral priorities. In 2019/20 as per the BEPP guidance note the focus of cities is on Climate Responsiveness and Resilience, strategic outcome relating to climate has been created to ensure that Capital projects identified by the city align to Climate responsiveness and resilience. The map below shows spatial representation of the projects that aligns with either of the following:

- Adaptation: reduction in climate risk
- Cross cutting
- Mitigation: reduction in GHG emissions

50% of the projects reflected on map30 are not aligned to the Climate responsiveness and resilience, which means the City needs to more in identify projects that are responding to climate change. Furthermore the City's performance can be evaluated on the circular 88 see attached annexure A.



Map 32: Strategic outcome: Climate Responsiveness & Resilience

In ensuring that the City addresses Climate responsiveness and resilience, a layer was creating in the JSIP to assist with identifying projects that align to climate adaptation.

CONCLUSION

The City still has competing infrastructure and development needs with a finite capital budget, it is inevitable that trade-offs through prioritisation have to be made. The JSIP and the associated capital investment planning process assist the City to find an optimal balance in infrastructure delivery to secure and improve the current asset base, achieve the objectives for upgrading and development in deprived areas and accommodate the future development aspirations and needs of the City. Moreover, the system assist in tracking projects that are aligned to the city's Climate responsiveness and resilience.

A wide range of priority areas for investment have been identified in the city and funding has been prioritised in such areas. Despite that, there is a need for management of growth, investment and development in such areas in order to formulate an area based focus which will in turn assist with consolidation of a range of investments that will have a catalytic, multiplier effect on returns (social, environmental and financial) within those areas. Thus, it is significant that growth trends be monitored and interpreted continually to influence policy and investment decisions. Growth management is thus linked to the SDF development indicators that will provide a measure of the success in relation to the intended development outcomes and targets. This would then allow for future adjustments of investment policy to be more responsive to prevailing conditions, Climate responsiveness and resilience and lastly, development objectives.

The City, in its draft budget has aligned itself to the strategic objectives of the National Government within the context of the Gauteng City Region (GCR). The City priorities are supported by the strategic objective which aims to establish the City as a leading metropolitan government that proactively contributes to and builds a sustainable, socially inclusive, locally integrated and globally competitive GCR. Furthermore the City has also shown its commitment in addressing climate change by reviewing its policies, frameworks to align with Climate Change Adaptation Framework as well as the Disaster Management Plan. With the upcoming climate action plan the City will be able to address all these problems relating to climate and create a city that is climate responsive and resilient.