



JULY 2021

CITY VISION: Tshwane Vision 2030

“Tshwane: A prosperous capital city through fairness, freedom and opportunity.”

Vision principles

Service delivery excellence and innovation
Economic growth and jobs
Promoting a safe and healthy city
Social cohesion, inclusion and diversity
Participation, collaboration and partnerships

Vision pillars

Fairness
Freedom
Opportunity

SPATIAL VISION

A spatially efficient capital city that is liveable, sustainable, competitive and resilient

SPATIAL MISSION

To lead integrated planning, maximising on spatial efficiencies for optimal service delivery

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ABOUT THIS DOCUMENT

This Municipal Spatial Development Framework (MSDF) is prepared in line with the requirements of the Municipal Systems Act, 2000 (Act 32 of 2000) (MSA), the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA) and the City of Tshwane Land Use Management By-Law (2016). The MSDF is to be a spatial informant and translation of the City of Tshwane Five-year Integrated Development Plan (IDP), while also having a strategic longer-term view. This MSDF replaces the Tshwane MSDF that was approved in 2012.

The MSDF provides a broad framework of reference and spatial directives in order to achieve spatial transformation within Tshwane. The MSDF should be read together with the approved sector-specific strategies of the City for more detailed or technical information pertaining to specific sectors.

This document is geared towards visitors, residents and investors who want to understand the spatial dynamics and possible future of Tshwane, and what we need to do to get there.

While the MSDF should be reviewed every five years, in line with the IDP review, the City of Tshwane will also allow for an annual assessment wherein any inconsistencies that are material to the intended outcomes of the MSDF can be updated or corrected. As the updates and/or corrections will be immaterial to the intent of the MSDF, these will not be subject to public participation. These updates and/or corrections will be reflected in an annexure that will be placed on the City of Tshwane public website, in the event that any such amendments are required. Amendments may include, but are not limited to, corrections of syntax or grammar or correcting the spatial layers of maps to correctly correlate with text or vice versa.

The Tshwane Municipal Council adopted this MSDF by way of resolution dated 29 July 2021.

MAPS AND GIS

Many of the maps used in this document are data-heavy and it is not always possible to view all the desired spatial data on a single map. The MSDF layers will be made available for viewing on the Tshwane GeoWeb at https://e-gis002.tshwane.gov.za/E_GIS_Web/ within three months after the approval of this MSDF. This online platform will allow members of the public to zoom in and out, isolate layers and switch layers on and off.

Once you are on the landing page of the Geoweb, accept the Terms and Conditions, select e-GIS viewer and select Map. It will open to a map of the entire Tshwane. Then on the top far right tab of the map, select Layer Manager. Using the layer management function, you can select which layers you would like to see, including the Regional Spatial Development Frameworks (RSDFs) (2013 and 2018) and the MSDF (2021).

Certain shape files will be available for sharing on request, subject to the completion of electronic data request forms, in order to protect the City's intellectual property.

Large size maps can be ordered from the City, at cost, by visiting the same Geoweb link and selecting Order Maps/Data and following the necessary steps.

Annexure 6 of this document provides a selection of key maps from this document in full A4 size.

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GLOSSARY OF TERMS

Accessibility

At a general level, accessibility for people implies the ability of people, including the elderly, people with disabilities, people with young children and people encumbered with luggage or shopping, to move around an area and reach places and facilities.

Activity nodes

Areas of concentration of mixed land uses.

Activity spines

Mobility routes connect a number of nodes or mixed-use areas, serving as the main public transport channels of the region. These routes could support linear development, although not necessarily continuous, along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

Activity streets

Local collector roads that support lower order land uses in a linear fashion along its length. Direct access to land uses is provided, compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

Affordable housing

Traditionally affordable housing refers to housing with prices or values below the overall open market value which targets below-average incomes. In this MSDF, affordable housing refers to the household income bracket of R3 501 to R18 000 per month, and is inclusive of social, gap, and inclusionary housing. It also refers to residential units valued at R500 000 or less.

Agglomeration of economies

The term for the occurrence when firms cluster together to produce at an added economy. This can take the form of urbanisation economies, where cost decreases as the total output of an urban area increases, or localisation economies, where costs decrease as firms in a specific industry increase output.

Agri-park

An innovative system that connects agricultural services such as agro-production, processing, logistics, marketing, training and extension services. As a network of systems, agri-parks will enable the growth of market-driven commodity value chains and contribute to the achievement of rural economic transformation. Also referred to as an “agri-village” in the City of Tshwane.

Agri-village

A sustainable rural settlement which integrates residential development with agriculture in order to ensure the creation of vibrant, equitable and sustainable rural communities and food security. An agri-village is intended to improve the livelihood of rural communities.

Backyard dwelling

Informal structures on formal residential erven, regardless of ownership. These structures are used for habitation and may be positioned behind, in front of or next to the primary dwelling.

Batho Pele

The City of Tshwane aims to espouse the following values, known as the Batho Pele Principles:

- Consultation
Customers should be consulted about the level and quality of the municipal services they receive and, wherever possible, should be given a choice about the services that are offered.

- **Service standards**
Customers should be told what level and quality of services they will receive so that they are aware of what to expect.
- **Access**
All customers should have access to all our services, and barriers should be done away with.
- **Courtesy**
All customers should be treated with courtesy, consideration and empathy.
- **Information**
Customers should be given full, accurate information about the municipal services they are entitled to receive.
- **Openness and transparency**
Customers should be given honest and open feedback on how the City works, what the resources are and how they are used, and the level of efficiency.
- **Redress**
If the promised standard of service is not delivered, customers should be offered an apology, a full explanation, and a speedy and effective remedy. When complaints are made, customers should receive a sympathetic, positive response.
- **Value for money**
The City should seek ways to simplify services and eliminate waste and inefficiency to ensure that services are delivered in the most efficient way.

The City will establish effective stakeholder forums that are inclusive and promote the ideals of a non-racial, non-sexist, democratic, caring and prosperous society.

Biodiversity

The biological wealth of a specified geographic region, including the different marine, aquatic and terrestrial ecosystems, communities of organisms within these, and their component species, number and genetic variation.

Brownfield site

Previously developed land and any associated fixed surface infrastructure. It often comprises abandoned or underused sites within the built-up urban area, such as hazardous industry, manufacturing, utilities, etc, and is available for redevelopment.

Bus rapid transit

Bus rapid transit (BRT) is a bus-based public transport technology typically operating on exclusive right-of-way lanes at surface level. In some cases, underpasses or tunnels are used to provide grade separation at intersections or in dense city centres. A typical BRT system consists of elements such as segregated median busways, pre-boarding fare collection, platform-level boarding, free transfer between corridors, high-frequency service and restricted operator access.

Capital core

A city's first order node among all metropolitan nodes. Traditionally, the inner city is also the central business district (CBD) of major cities. The capital core must be the focal point to house government departments and be developed to a higher than average density, supporting all principles of smart growth.

Central business district

The traditional business core of an urban area. The CBD is usually the office, financial, retail and service centre of a city, providing employment opportunities for a large number of people and a significant share of the tax base.

City-region

A major metropolitan conurbation that is ranked in the world hierarchy of urban settlements. This perspective stresses the importance of understanding the functional economic geography of the city-region – how the different components relate to each other, their comparative and competitive advantages, and how people, capital flow and business linkages shape the regional economy.

Conservation area

An area of special natural, ecological, architectural or historic interest, whose essence of character or appearance is desirable to preserve and/or enhance.

Carbon footprint

A measure of the “load” imposed by a given population on nature. It represents the land area of average quality needed to sustain the current levels of resource consumption and waste discharge by that population. The bigger the footprint, the greater the impact that it represents.

Climate change

The long-term change in average weather conditions, including temperature, precipitation and wind.

Compaction

A planning and urban design concept that is achieved through a combination of infill development, intensification of land use and densification, and which –

- promotes relatively high residential density with mixed land uses;
- is based on an efficient public transport system;
- encourages walking and cycling, low energy consumption and reduced pollution; and
- provides a large resident population with accommodation opportunities for social interaction as well as a feeling of safety in numbers and “eyes on the street”.

Concentration zones

The primary focus areas for high-density, and medium to high-rise residential developments, which are centred on nodes of metropolitan importance such as metropolitan and urban cores (high-density zones), transit promotion and other strategic locations.

Consolidation

A higher-density spatial form achieved by “filling in the gaps” in the existing built form, seen as an opportunity to reduce the ecological footprint of urbanisation while enhancing social interaction.

Densification

The process of increasing land-use densities (the building density) in a planned and meaningful way within the existing boundaries of a specific area. This yields an increased population density (as determined by the occupancy density) and subsequent increased efficiency in the use of infrastructure, services and amenities.

Development corridor

A transport or trade corridor that provides an appropriate regional level of mobility and accessibility to adjacent areas, and should contain a high concentration of population and mixed land uses (job opportunities). Development corridors will thus accommodate major linear transport routes such as heavy and light railways and freeways.

Within the context of this MSDF, development corridors are also referred to as “Roads for Growth”.

Economies of density

This is somewhat related to agglomeration of economies, but focuses on spatial coverage and proximity. For instance, retailers can achieve several types of cost savings by locating their stores in proximity to one another. Such a structure reduces logistics and delivery costs by sharing a distribution centre. Other advantages may include the possibility to relocate part of the workforce between nearby facilities and having shared advertising. In such circumstances, the locational strategies are based on proximity to existing facilities, even if this implies the selection of suboptimal locations.

Economic agglomeration

A concentration of businesses and people increases productivity by putting upward pressure on the price of land, thus driving businesses to become more productive and people to become more skilled, and through the agglomeration benefits to which the close proximity of firms gives rise. Valuable agglomeration economies, which help to sustain Tshwane’s prominent regional position, are crucially dependent on effective infrastructure.

Economic potential areas

Areas anchored by opportunity or growth business nodes which exhibit above-average location potential, and are typically characterised by economic agglomeration.

Ecological services

Ecological services refer to the provision of services by nature and can include, inter alia, water supply, air purification, flood attenuation, pollination and natural recycling of waste. Also referred to as ecosystem services.

Engineering infrastructure

Engineered services such as roads, electricity, water, sewers and storm water systems. It is sometimes referred to as “hard services”.

Evidence mapping

A structured process of seeking, ordering and making sense of relevant published and unpublished research (evidence) to inform the preparation and review of policy and legislation.

Exurbia

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Exurbia often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the smallholding and agricultural potential of exurbia can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to as the “urban breadbasket”).

Food security

When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active, healthy life.

Future urban areas

Areas that have been identified as suitable for urban development in the short to medium future. These areas are identified based on need (development pressure and the logical prospect of an area to expand and be in line with the growth management principles of compaction, densification and infill). Availability of services and infrastructure, environmental sensitivities and geological constraints must be taken into consideration. Certain rural areas may fall into this category.

Green infrastructure

The interconnected set of natural and constructed ecological systems, green spaces and other landscape features. It includes planted and indigenous trees, wetlands, parks, green open spaces and original grassland and woodlands, as well as possible building and street level design interventions that incorporate vegetation. Together these assets form an infrastructure network that provides services and strategic functions in the same way as traditional grey infrastructure.

Grey infrastructure

The set of man-made or engineered systems and other features that involve the use of traditional technology and building materials, such as concrete, bricks and impermeable surfaces.

Gap housing

Housing for households with a monthly income of between R3 500 and R10 000, who fall outside the government housing subsidy income limit of R3 500 per month and find it difficult to access housing in the private market.

Gauteng City-Region

The city region is a new way of looking at urban Gauteng, not just as a collection of towns, cities, local governments and boundaries, but as a single conurbation with potential at the global level. This change of focus is important for establishing institutional relationships that will lead the growth and development of the city region.

Green corridor

Green corridors can integrate urban development with natural vegetation. They help to promote environmentally sustainable development and can also act as vital linkages for wildlife dispersal between wetlands and the countryside.

Greenfield site

Undeveloped land identified for residential, industrial, commercial or other development, generally on the fringe of the metropolitan area.

Green economy

In its broad application, the green economy concept relates to sustainable development in all its forms and covers six main areas, namely renewable energy, green buildings, clean transportation, water management, waste management and land management.

Growth management

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. Growth management encompasses smart growth, transit-oriented development, densification, intensification, compaction and infill development.

City improvement district

A geographic area in which the majority of property owners and/or business owners agree to provide an extra level of public service in a specific area by imposing an added tax or fee on all of the properties and/or businesses in the area. City improvement districts (CIDs) are grassroots, community-driven organisations where the private sector delivers supplementary services for the revitalisation and maintenance of a specifically designated area, which services are beyond what the local government provides.

Inclusionary housing

A policy directive and approach that seeks to leverage the development application process for new residential or commercial developments to secure the construction and perpetual availability of affordable housing in an integrated manner. The crux of an inclusionary housing policy is the “inclusion”, either voluntary or mandated through policy, of affordable housing with market-orientated units as part of private sector housing

developments. Affordable units in inclusionary projects are provided to low-income households, with the definition and income thresholds varying based on the locational context of implementation. “Affordable housing” is a related term.

Incremental densification

Small-scale densification that has a minimal impact on the urban fabric, for example subdivision or secondary dwelling units, but translates into higher densities over time.

Infill

New development on vacant or underused parcels that are served by infrastructure and surrounded by urban development. Infill sites are normally scattered throughout the city and are usually only a few lots wide or in isolated parcels within already built-up areas. The sites are vacant either because the structures that were on them were demolished or because they remained undeveloped when the adjoining buildings were erected. Infill also includes redevelopment and revitalisation projects where existing structures in already developed areas are removed to allow for new construction.

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 the Upgrading of Informal Settlements Programme (UISP) Consolidation Document, 2014*).

The other 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*).

In-situ upgrading

Upgrading is a staged process of improving the quality of life in informal settlements, based on incremental provision of services and tenure. It should seek to maximise in-situ development in appropriate areas and minimise relocation. An effective improvement process is built on close community participation and cooperation, aiming to strengthen livelihood strategies of the poor. Housing is provided through a variety of methods, including self-build, the People’s Housing Process, social housing or affordable rentals, individual subsidy or consolidation subsidy.

Inner city

An area in Tshwane comprising the Pretoria CBD and surrounding residential areas.

Intensification

The development of a property, site or area at a higher density than the current, through –

- redevelopment, including the use of brownfield sites,;
- the development of vacant and/or underused lots within previously developed areas;
- infill development; or
- the expansion or conversion of existing buildings.

Integrated planning

Planning that enjoys the cooperation and contribution of different sector departments, different spheres of government, state-owned entities and the private sector in order to programme and implement development that is geared towards achieving a shared set of development outcomes.

In terms of space, integrated planning is planning the built environment to support its performance as a whole in an equitable manner, balancing land uses and infrastructure requirements, optimising public access and creating liveable urban precincts.

Integrated Public Transport Network

In line with the National Public Transport Strategy of 2007, this is an initiative to implement high-quality networks of rail priority corridors and bus rapid transit corridors. The Tshwane Integrated Public Transport Network (IPTN) comprises both rail- and road-based rapid transit infrastructure. It consists of all the public transport-related routes and modes, like the Passenger Rail Agency of South Africa (PRASA) and Gautrain rail network, buses, minibus taxis, metered taxis and non-motorised transport (NMT) in Tshwane.

Integration zone

A spatial planning element that facilitates the spatial targeting of investment aimed at spatial transformation. Each zone consists of a transit spine which connects two anchors, for example the CBD and an urban hub (township node with the best investment potential), via mass public transport (railway or bus).

Intensification or mixed land use

Achieving a greater spectrum of compatible 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 transit-orientated development (TOD) precinct,

resulting in increased population thresholds that support public transport ridership, walkability, economic development and inclusivity.

Intergovernmental project pipeline

A pipeline of projects of a strategic or priority nature within the metropolitan city, whether it is a project of the national, provincial or metropolitan government, or that of a state-owned entity. The main purpose of the pipeline is to incorporate funding and projects from all governmental spheres and entities to prioritise collective public investment in particular spaces.

Land-based financing

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

Leapfrog development

A pattern of growth in which vacant parcels adjacent to existing development are bypassed and land further out is developed instead. Leapfrog development generally occurs as developers choose to build on less expensive, more removed parcels. Considered part of a sprawl pattern, leapfrog development often uses extensive amounts of land beyond the urban edge and requires additional infrastructure extensions.

Liveable streets

Streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, bicyclists and transit users.

Management zones

Areas that are neither demarcated as urban nor identified for future urban development. These areas are often characterised by cultivation and very low densities (rural character) or with environmental sensitivities forming

part of larger ecological biospheres. Minimum engineering services and infrastructure for the applicable densities and land uses must be available. Urban development is not permitted in these areas. Certain rural areas fall within this category. Rural development such as low-density eco estates and equestrian estates will be supported depending on the services that can be provided. The availability of services and the ease of access to major roads will play an important role in the evaluation of non-residential uses.

Marginalised areas

Areas characterised by predominantly low-income communities, including significant informal settlements and/or other neighbourhoods that are classified as needy or very needy by the City's Socio-Economic Index.

Marginalised residential areas

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

Mixed land use areas

Areas 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. This implies a contextually appropriate intensity of land uses that should facilitate efficient public transport and a vibrant local urban environment. Also referred to as land use diversity.

Mobility

The ease with which people can travel with minimal delay on a route.

Nodal development

Significant and concentrated development in terms of scale, location, impact, diversity and an agglomeration of functions.

Node

A node provides the focus for services, employment and social interaction in cities and towns. Nodes are where people shop, work, meet, relax and often live. Usually well-served by public transport, they range in size and intensity of use from local neighbourhood strip shopping centres to traditional universities and major regional malls.

Non-motorised transport

Interchangeable with the spatial planning concept of "pedestrianism". NMT entails all forms of movement that are human- or animal-powered and do not rely on engines or motors. This includes walking, cycling, rickshaws, wheelchairs, animal-drawn carts, and recreational activities such as equestrian sport, rollerblading, skating and riding on battery propelled scooters.

Pedestrianisation/pedestrianism

Interchangeable transport planning term of NMT. Any form of transport or movement that involves physical activity. This includes cycling, walking and using public transport (the walk to and from the bus, taxi or train is part of the journey).

Population density

The number of people in a given area, calculated as people per km².

Public open space

All spaces of public value, including public landscaped areas, public squares and civic spaces, plazas and entrances to shopping areas, pedestrian areas, bikeways and paths, playing fields, parks and play areas, including land and bodies of water, such as rivers, canals, lakes and reservoirs, which can offer

opportunities for sport and recreation or can also act as a visual amenity and a haven for wildlife. These areas usually remain vacant.

Public transport interchange

Facilities that support the transfer of public transport users between transport modes (rail, bus or taxi), but also function to support economic activity.

Pyramid South

A logistics gateway, combining direct terminal handling facilities and value-add logistics services and activities which are mutually beneficial and of a symbiotic relationship with the terminal, aiding functions such as transportation, processing, manufacturing, warehousing, distribution, and commercial and retail functions.

Regeneration

The economic, social and environmental renewal, restructuring and improvement of rural and urban areas.

Rural areas

Sparsely populated areas not included in core nodal areas of cities. Economic activity in these areas typically consists of agriculture, fisheries, forestry, nature conservation, tourism, mining or similar and related activities. In South Africa, there are rural areas that are more densely populated but are not compact or urban in nature, which is a remnant of the spatial planning of apartheid and the creation of “homelands”. Rural areas are land spaces where human settlement and infrastructure occupy only small patches of the landscape. The majority of rural poor live in areas that are poor in resources and highly heterogeneous.

Spatial development framework

A management tool that provides a spatial strategy to achieve the City's vision, provides development direction, coordinates initiatives and identifies key interventions and development areas. It is a set of

development objectives, strategies and policy statements established to achieve a holistic vision and approach to the development and management of land.

Smart growth

A component of growth management. It guides development so that resources and services are provided to meet the demands of the affected population over a long period. In short, smart growth can be explained as “doing the right thing in the right place in the right way at the right time”. Smart growth is transit- and pedestrian-oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities.

Social housing

A rental or co-operative housing option for low- to medium-income households. It requires institutionalised management which is provided by accredited social housing institutions or in accredited social housing projects in designated areas.

Socio-economic integration

Our communities are categorised as low-, middle- and upper income groups. Due to past policies, these communities have been accommodated in neighbourhoods based on their income group and/or racial classification. Socio-economic integration redresses that imbalance by creating places of residence where communities are mixed and integrated through the provision of different housing typologies for various income groups, with supporting social facilities that are essential for livelihoods such as government institutions, clinics, libraries, shops, transport facilities, places of employment and communal spaces, such as parks and public squares.

Spatial economy

In traditional terms, spatial economy refers to the allocation of (scarce) resources, their location and subsequent economic effect. In the context

of this document, the spatial economy will include all social, economic and environmental considerations relating to spatial planning.

Spatial efficiency

Planning that supports productive activity and jobs, and reduces burdens on business. Efficient commuting patterns and the circulation of goods and services should be encouraged, and regulatory procedures should not impose unnecessary costs on development.

Spatial justice

Reversing the historic policy of confining particular groups to limited spaces, as in ghettoisation and segregation, and the unfair allocation of public resources between areas, to ensure that the needs of the poor are addressed first rather than last.

Spatial inequality

Unequal access to urban opportunities as a result of spatial distribution.

Spatial quality

Improving the aesthetic and functional features of housing and the built environment to create liveable, vibrant and valued places that allow for access and inclusion of people with disabilities.

Spatial resilience

Building the capacity to withstand vulnerability to environmental degradation, resource scarcity and climatic shocks.

Spatial restructuring

A spatial planning concept that aims at redressing an unsustainable spatial form by redirecting growth to areas of opportunity. It encourages development around nodes, densification along corridors, residential developments near areas of economic activity with supporting social facilities, and defines spaces through spatial design, etc. Also see “spatial transformation”.

Spatial sustainability

Promoting living environments whose patterns of consumption and production do not damage the natural environment.

Spatial targeting

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

Spatial transformation

The process of reversing the negative impacts of apartheid spatial planning (spatial fragmentation, inefficient urban form, racial segregation, ghettos of poverty, etc). The key outcomes of spatial transformation include integrating communities and increasing opportunities to a greater number of people in highly connected areas. Renouncing the creation of new low-income communities on the periphery of the city is also a key principle to avoid the need for these groups to spend a disproportionate amount of their household income on transport, and remain distant and dislocated from the socio-economic benefits and amenities associated with central urban locations. Also see “spatial restructuring”.

Sprawl

A multifaceted concept, which includes the spreading outwards of a city and its suburbs to its outskirts to low-density and decentralised development, often giving rise to leapfrog development, sometimes outside of the urban edge with a high segregation of uses and various design features that encourage dependency on cars.

Sustainable development

A pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met in the present and for generations to come. The field of sustainable development can be

conceptually broken into three parts: environmental sustainability, economic sustainability and socio-political sustainability. Sustainability within the built environment refers to spatial types and morphologies related to intensity of use, consumption of resources, and the production and maintenance of viable communities.

Township

In the context of this document, a township is a residential suburb established during the apartheid era. These were located beyond the urban periphery, specifically created to accommodate non-white people. Apartheid legislation enabled the government to forcibly locate non-white people in townships. This is not to be confused with the legal term of township, which refers to a measure of land that has been formalised through town planning and legal processes, including the approval of a general plan which is approved by the surveyor general and the recording of land title with copies at the Deeds Registry.

Transit-oriented development

A mixed-use residential or commercial area designed to maximise access to public transport and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (like a train station, subway station, BRT stop or taxi rank), surrounded by relatively high-density residential developments, retail facilities, and employment and social facilities concentrated around the station. TODs are generally equipped with facilities and services at a convenient distance for pedestrians and NMT infrastructure.

Transport corridors

Main public transport channels, which implies the prioritising of public transport and NMT over private transport.

It encompasses a pedestrian or cyclist-oriented environment with traffic calming measures for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport

opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

Travel demand management

Focuses on understanding how people make their transportation decisions and helping people use the infrastructure that is in place for transit, ride-sharing, walking, biking and telework. It is cost-effective in guiding the design of transportation and physical infrastructure so that alternatives to driving are naturally encouraged and systems are better balanced.

Urban cores

Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low-income or unemployed people. The economic circumstance was clear in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes, the government must play a more active role in social and economic restructuring, especially in view of limited private investment relative to metropolitan cores. The Neighbourhood Development Partnership Grant (NDPG) is a nationally funded programme that aims to address the improved quality of the environment in urban cores.

Urban development

Buildings and infrastructure with a residential purpose as well as offices, shops, community facilities and other associated buildings, infrastructure and public open space necessary to provide for the proper functioning of urban areas, amenity and recreation. It includes golf estates, vineyard estates with a residential component, equestrian estates with a residential component, rural living estates, eco estates, gated communities and

regional shopping centres. It excludes noxious industry and generally excludes land for industrial purposes. However, service trades that are compatible with mixed-use development and that generate a low impact on surrounding urban uses may be permissible if the nature and type of industry is deemed to form an integral part of an area demarcated for urban development purposes.

Urban development zone

An area demarcated in accordance with the Income Tax Act, 1962 (Act 58 of 1962) as amended by the Revenue Laws Amendment Act, 2003 (Act 45 of 2003). In terms of this incentive, taxpayers who construct, improve or purchase a building or part of a building from a developer within this area will be allowed to claim a reduction in taxable income.

Urban edge

A virtual development boundary and inter-related policy that serves to control urban sprawl by mandating the area inside the boundary to be used for higher-density urban development, and the area outside the boundary to be used for lower density, green open spaces and/or no development. Outside the urban edge, development should only be permitted within existing small towns and rural nodes, and where the environment and agriculture are not compromised. The urban edge forms the boundary between urban development and the valuable natural and agricultural hinterland in order to contain the lateral growth of the urban areas.

Urban footprint

The total spatial extent of existing urban development.

Urban management

Involves the area-based involvement of and coordination with end users in the implementation, operation and maintenance of public facilities and services. In the local context, this may include the establishment of city improvement districts, area coordination teams, or mayoral urban regeneration programmes. In the long term, successful urban

management fosters a culture of joint accountability between the City and local stakeholders, reducing the potential of tension usually associated with top-down service delivery.

Urban Network Strategy

The Urban Network Strategy (UNS) is a spatial targeting tool that is being implemented as a national policy directive that informs spatial planning at a provincial and regional scale, and forms the basis of the Built Environment Performance Plan (BEPP) by providing a spatial approach against which to target investment. The UNS seeks to achieve spatial restructuring through meaningful linkages of marginalised areas to areas of opportunity via an integration zone.

Urban restructuring zone

A well-located area where the Department of Human Settlement's capital restructuring grant subsidy, as defined in terms of the Social Housing Act, 2008 (Act 16 of 2008), applies.

Value capture

A type of public financing where increases in private land values generated by public investments are all or partly recovered by the public sector.

Value creation

Occurs when the introduction of infrastructure in a certain place results in the land close to this infrastructure increasing in value.

Water security

The reliable availability of an acceptable quantity and quality of water for health, livelihood and production, coupled with an acceptable level of water-related risks.

Water services provider

Any person who provides water services to consumers or to another water services institution, but not including a water services intermediary as defined by the National Water Services Act, 1997 (Act 108 of 1997).

Water quality

The physical, chemical, toxicological, biological (including microbiological) and aesthetic properties of water that determine sustained (1) healthy functioning of aquatic ecosystems, and (2) fitness for domestic, recreational, agricultural and/or industrial use.

ABBREVIATIONS AND ACRONYMS

AADD	Annual average daily demand	CID	City improvement district
AH	Agricultural holdings	CIF	Capital Investment Framework
AIDC	Automotive Industry Development Centre	CITP	Comprehensive Integrated Transport Plan
AISI	Aerospace Industrial Support Initiative	CLDPs	Catalytic Land Development Programmes
BEA	Building Efficiency Accelerator	CNG	Compressed Natural Gas
BEPP	Built Environment Performance Plan	CoGTA	Cooperative Governance and Traditional Affairs
BEPPSCO	Built Environment Performance Plan Steering Committee	CPM	Capital Prioritisation Model
BRT	Bus Rapid Transit	CR&R	Climate Resilience and Responsiveness
BSC	Budget Steering Committee	CRDP	Comprehensive Rural Development Programme
CAP	Climate Action Plan	CRS	Climate Response Strategy
CAPEX	Capital expenditure	CSIR	Council for Scientific and Industrial Research
CAPS	Capital Planning (and Prioritisation) System	CSP	City Support Programme
CAPSCO	Capital Planning Steering Committee	DARDLR	Department of Agriculture, Rural Development and Land Reform
CAPSTTT	Capital Planning System Technical Task Team	DHS	Department of Human Settlements
CAV	Centurion Aerospace Village	DIPS	Development Intervention Portfolios
CBD	Central business district	DORA	Division of Revenue Act
CEF	Capital Expenditure Framework	DRDLR	Department of Rural Development and Land Reform

EDPQ	Economic Development Priority Quadrant	GRDP	Gauteng Rural Development Plan
EGP	Embedded Generation Policy	GSDF	Gauteng Spatial Development Framework
EIA	Environmental Impact Assessment	GTERS	Gauteng Township Economy Revitalisation Strategy
EPMU	Enterprise Programme Management Unit	GVA	Gross value add
FDA	Future development areas	HDA	Housing Development Agency
FDI	Foreign direct investment	HSMSP	Human Settlements Master Spatial Plan (national)
FLISP	Finance Linked Individual Subsidy Programme	ICDG	Integrated City Development Grant
GAC	Granular activated carbon	ICT	Information and communication technology
GBCSA	Green Building Council of South Africa	IDP	Integrated Development Plan
GCM	Global circulation model	IDZ	Industrial development zone
GCR	Gauteng City-Region	IPCC	Intergovernmental Panel on Climate Change
GCRO	Gauteng City-Region Observatory	IPTN	Integrated Public Transport Network
GDP	Gross domestic product	IRPTN	Integrated Rapid Public Transport Network
GEMF	Gauteng Environmental Management Framework	ITMP	Integrated Transport Master Plan
GGMP	Gauteng Growth Management Perspective	IUDF	Integrated Urban Development Framework
GHGEI	Greenhouse Gas Emissions Inventory	IWMP	Integrated Waste Management Plan
GIS	Geographic Information Systems	LED	Local economic development
GPC	Global Protocol for Community-Scale	LSDF	Local Spatial Development Framework

LUS	Land Use Scheme	NUSP	National Upgrading Support Programme
MCA	Multi-criteria analysis	OPEX	Operational expenditure
MFMA	Local Government: Municipal Finance Management Act, 2003 (Act 56 of 2003)	PHSHDA	Priority Human Settlements and Housing Development Area
Mℓ/d	Megalitre per day	PICC	Presidential Infrastructure Coordinating Commission
MSDF	Metropolitan Spatial Development Framework	PRASA	The Passenger Rail Agency of South Africa
MTEF	Medium-term Expenditure Framework	RDP	Reconstruction and Development Programme
MTREF	Medium-term Revenue and Expenditure Framework	RSDF	Regional Spatial Development Framework
NDP	National Development Plan	SAACPP	South African Association of Consulting Professional Planners
NDPG	Neighbourhood Development Partnership Grant	SACN	South African Cities Network
NEMA	National Environmental Management Act, 1998 (Act 107 of 1998)	SACPLAN	The South African Council for Planners
NERSA	National Energy Regulator of South Africa	SADC	Southern African Development Community
NHFC	National Housing Finance Corporation	SAF	Strategic Area Framework
NMD	Notified maximum demand	SAIDI	System Average Interruption Duration Index
NMT	Non-motorised transport	SAIFI	System Average Interruption Frequency Index
NSDF	National Spatial Development Framework	SAL	Small area layer (Statistics South Africa Census 2011)
NSDP	National Spatial Development Perspective	SANBI	South African National Biodiversity Institute
NUA	New Urban Agenda	SANEDI	South African National Energy Development Initiative

SANRAL	South African National Roads Agency	TFR	Transnet Freight Rail
SAPOA	South African Property Owners Association	TICRS	Tshwane Inner City Regeneration Strategy
SAPS	South African Police Service	TMPD	Tshwane Metro Police Department
SDBIP	Service Delivery and Budget Implementation Plan	TMR	Transformation Modernisation Reindustrialisation
SDF	Spatial Development Framework	TOD	Transit-oriented development
SDGs	Sustainable Development Goals	TOSF	Tshwane Open Space Framework (2005)
SEZ	Special economic zone	TRT	Tshwane Rapid Transit
SHRA	Social Housing Regulatory Authority	UAI	Urban Agriculture Initiative
SHSP	Sustainable Human Settlements Plan	UDF	Urban Development Framework
SIP	Strategic Infrastructure Project	UDISA	Urban Design Institute of South Africa
SPLUMA	Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)	UDZ	Urban development zone
SPP	Sustainable Procurement Policy	UN	United Nations
SRES	Special Report in Emissions Scenarios	UNS	Urban Network Strategy
SUD	Sustainable urban drainage systems	USDG	Urban Settlements Development Grant
TAC	Tshwane Automotive City Project	WMP	Wetlands Management Plan
TACDF	Tshwane Automotive City Project Development Framework	WRC	Water Research Commission of South Africa
TEDA	Tshwane Economic Development Agency	WWTW	Waste Water Treatment Works