

# SECTION 1: INTRODUCTION

## 1.1. STUDY BRIEF

In May 2007, Maluleke Luthuli and Associates was appointed by the Johannesburg Metropolitan Municipality to prepare Urban Design and Land Use Guidelines for the section of the Rapid Bus Transit (BRT) system stretching from Parktown to Sunninghill (excluding Sandton and Rosebank).

Land use integration with public transportation (such as the BRT) forms the backbone of an efficient urban structure. It not only ensures the efficient operation of a public transportation system, but it also tends to rationalize urban form by concentrating urban development at higher densities close to public transportation routes.

The key to successful land use and transportation integration is obtaining higher land use densities and a greater mix of land uses at transit station, such as bus ranks and bus stops. These are the points where access is obtained to the public transport systems and attempts should thus be made to optimally use these strategic locations. This can be done by locating a mix of work, community and higher-density residential uses at these stations, thus creating a one-stop service area for commuters. These transit nodes are referred to as Transit Oriented Developments or TODs.

Of particular importance is the integration of housing development and public transportation. Public transportation is and must be central to housing development, specifically higher-density housing development, simply because households that typically live in higher densities are more reliant upon public transport than households that live at lower densities. Households living in higher housing densities require access to cheap and efficient public transport primarily to access employment opportunities. Consequently, the integration of higher-density housing and public transportation directly affects the sustainability of communities and the ability of households to find and keep employment opportunities.

Based on the above as a point of departure, the specific objectives of the project was defined as follows:

- To support an effective public transport service with an appropriate supporting pedestrian network and connections.
- Provide strategically located and hence accessible housing opportunities.

- Promote a quality urban environment.
- Promote the development of spatially and economically integrated transport precincts that are attractive, efficient, convenient, safe and effectively managed.
- Encourage partnership amongst commuters, transport operators, private sector developers, adjacent properties and surrounding communities to allow for the maximization of the sense of place.

## 1.2. METHODOLOGY

### 1.2.1. PROJECT METHODOLOGY

According to the Diagram below, the Methodology for the preparation of the Urban Design and Land Use Guidelines for the Parktown-Sunninghill RBT Routes was conducted in 4 distinct phases: an analysis phase, which will involve a status quo analysis of the Study Area, a proposals, which will involve defining a Development Concept and development Framework for the Study Area, a implementation phase, which will involve the preparation of a land use management system to implement the Development Framework, and a application phase, which will involve applying the project concepts and principles to a number of precincts along the BRT route.

#### PHASE 0: PROJECT INCEPTION

A project orientation meeting was held where the details and the proposed approach and methodology of the project was discussed with the Project Steering Committee. This provided a clear indication of any revisions required to the approach, methodology, timeframe or deliverables. It also provided an opportunity to obtain all relevant information needed to prepare the RBT study, as well as identify information gaps. The Municipality provided Maluleke Luthuli and Associates with a letter of appointment.

# PARKTOWN-SUNNINGHILL BRT DEVELOPMENT FRAMEWORK

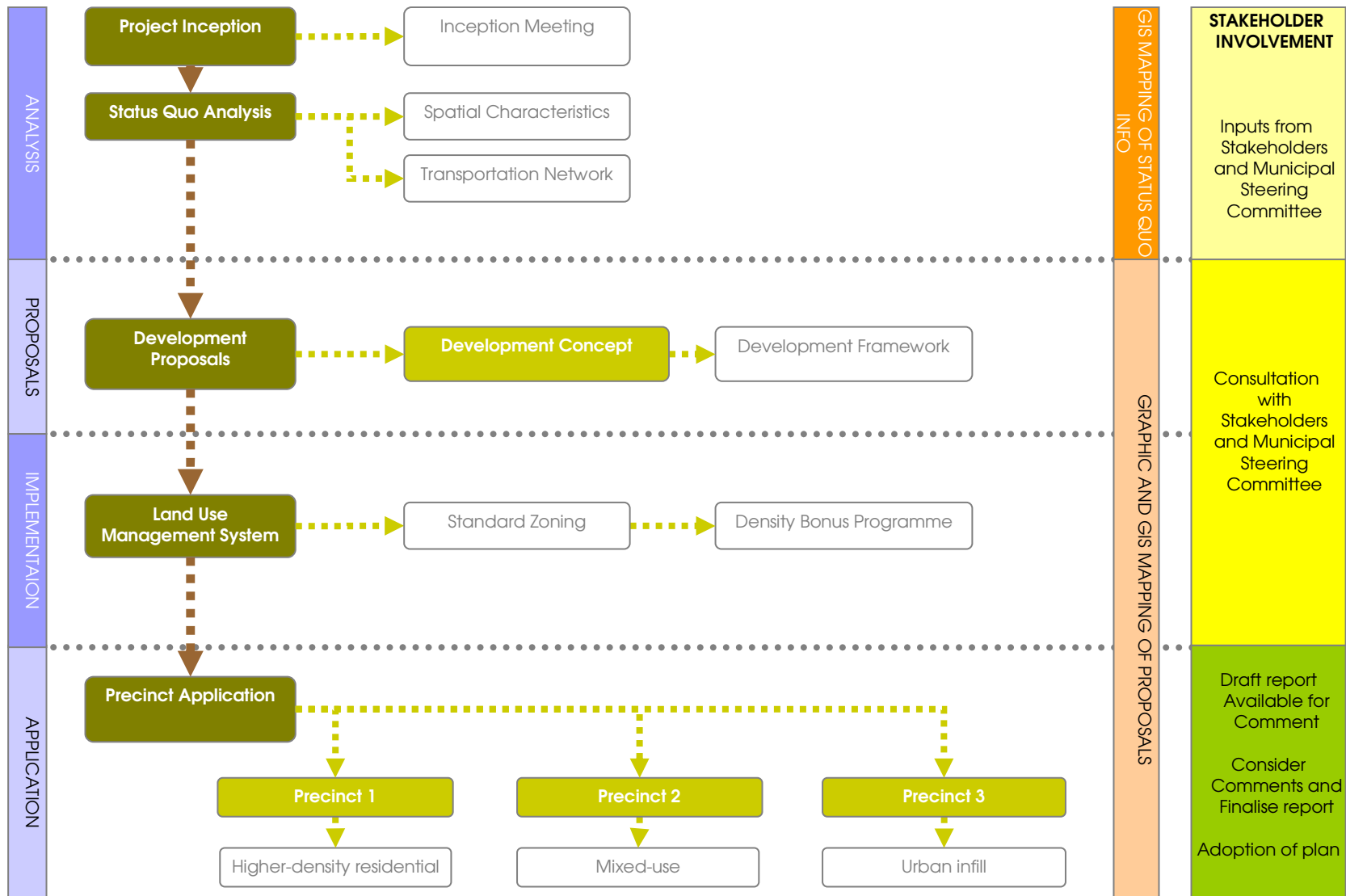


DIAGRAM: PROJECT METHODOLOGY

## PHASE 1: STATUS QUO ANALYSIS

---

The Status Quo phase involved preparing the base information for the compilation of the project. Primarily, this involved creating GIS base maps and requesting Census 2001 data from Statistics South Africa. It was also an opportunity to coordinate the planning of the project with other similar planning initiatives, such as the Gautrain UDFs.

In addition, the Status Quo phase involved an analysis of the project area information. This had 2 primary components. The first component involved an analysis of the **spatial characteristics** of the Study Area, such as land use, zoning and building height. The second component involved a **transportation network** analysis of the Study Area, including issues such as BRT route alignment and stations.

## PHASE 2: DEVELOPMENT FRAMEWORK

---

Phase 2 involved the preparation of a development concept and a Development Framework to provide the framework for more detailed proposals for the BRT route.

The **development concept** involved defining objectives and strategies for the development of the project area. These objectives and strategies focused on issues such as urban consolidation and densification, housing development and land use/public transportation integration. Based on these objectives and strategies, a Development Concept was drafted for the Study Area. This Development Concept aimed at promoting positive development trends and urban patterns that support the operation of the BRT system.

This task also involved preparing a **Development Framework** for the Study Area. This Development Framework was based on the Development Concept and specifically aimed at enhancing land use and transport integration in order to ensure the optimal functioning and operation of the BRT system.

### PHASE 3: LAND USE MANAGEMENT

---

The primary tool for implementing the Development Concept and Development Framework is the Land Use Management System. This system intended to provide practical tools to implement the Framework proposals. Specific attempts were made to ensure this part of the document was user-friendly in its application. The Land Use Management System comprised 2 primary components: a Standard Zoning System setting the minimum standards for BRT land use support and a Density Bonus Programme to encourage greater compliance with BRT principles.

### PHASE 4: PRECINCT APPLICATION

---

The Land Use Management System set out above, was applied to precincts along the BRT route to demonstrate the practical implementation of the proposals. Precincts were chosen with different characteristics to illustrate the manner in which the proposals can be applied to different situations. The following 3 precincts were used:

- **Infill precinct:** An infill development that enabled land use and transportation integration through land use development from the onset.
- **Mixed-use precinct:** The mixed-use precincts provided an opportunity to illustrate how economic opportunities and social amenities can be made more accessible using BRT.
- **Higher-density residential precinct:** The location of higher-density housing typologies should take into account factors such as accessibility to public transport and the impact of higher residential densities on the viable operation of public transport systems.

Central to the preparation of the project was the preparation of design criteria for the Precincts. The design criteria were based on sound land use and transportation integration principles. Design criteria were provided for the integration of higher-density housing typologies, the development of pedestrian connections, and the promotion of the quality transportation precincts.

## 1.2.2. GIS DATABASE COLLATION

The spatial and infrastructure planning information of the BRT study was drawn into a GIS database. The electronic mapping and other information was made available to the Municipality for inclusion in their GIS database and was compatible with the Municipality's Geographical Information System (ArcGIS). Care was taken to ensure the information presented is as true as possible, legible and user-friendly.

## 1.2.3. STAKEHOLDER PARTICIPATION

It is considered essential to obtain buy-in into the BRT study. To achieve this, Maluleke Luthuli and Associates consulted with relevant stakeholders. To ensure relevant and needs-accurate inputs were obtained, the consultation process is targeted to specific stakeholders that have a good understanding of the nature of the study area in question, but also have the necessary experience of and exposure to BRT planning principles.

Consultation with the Johannesburg Metropolitan Municipality was conducted through a Project Steering Committee. This committee included relevant technical representatives from all the relevant municipal departments of the Municipality. Technical meetings were convened and chaired by the Municipality. Provision was made to allow Steering Committee members to review all interim project documents. In addition, presentations were made to non-municipal organizations, such as resident associations.