ETHEKWINI MUNICIPALITY
FRAMEWORK PLANNING BRANCH

DENSIFICATION FRAMEWORK AND ACTION PLAN FOR
THE SOUTHERN PUBLIC TRANSPORT CORRIDOR

UMLAZI HOUSING PROJECT CONCEPT

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PREPARED FOR:
Framework Planning Branch
eThekwini Municipality
166 KE Masinga Road
DURBAN
4001
Contact Person: Ms Devoshini Konar 031 – 311 7744

PREPARED BY:
StratPlan Iyer Urban Design Joint Venture
Postnet Suite 75
Private Bag Xo3
WESTVILLE
3630
Contact Persons: Tindall Kruger / Suzanne Schlemmer 031 – 262 7014
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1. INTRODUCTION

1.1. PURPOSE OF REPORT

The purpose of the report is to present a concept for the densification of housing in the Umlazi sub-corridor of the Southern Public Transport Corridor. The concept, although proposed for Umlazi, can potentially be applied to most residential components forming part of the IRPTN Corridors and feeder routes.

1.2. THE PROJECT CONCEPT

‘Umlazi is characterised by a high density population, high levels of unemployment, low levels of income, low levels of education and skill, high levels of crime and low levels of access to social services. Currently Umlazi contributes a relatively small proportion to the total GDP of the eThekwini region in comparison to its population share. The levels of economic activity generated by business, both formal and informal, are too low to create employment within Umlazi and many businesses never expand as they lack the necessary skills and know-how to operate. This highlights the need for development in education along with initiatives to help increase employment and reduce poverty, in order raise the standard of living for everyone’ (Umlazi Business Plan, Final Report, June 2009, p66).

In line with the 2009 Business Plan, it is proposed that individual property owners benefit from this initiative. The proposal allows for land parcels within 1.5 kilometres of an IRPTN facility (road way or station) to increase their FAR’s. This will allow greater thresholds within walking distance of the IRPTN system, therefore assisting its efficiency. The proposal allow property owners to invest in their properties to create an extra dwelling, allowing an increased in property values as well as additional income through rentals.

The initiative could be used to assist the Municipality address their housing backlog, if individual property owners adhere to the planning and development parameters, as well as benefit the community through the upliftment of individual wealth and property values.

The proposals for the Umlazi Housing Project falls in line with the overall project objectives, as well as the primary design intentions;

- To identify area suitable for densification within the road and rail corridor as well as adjacent suburbs;
- To identify specific segments, blocks, nodes and site specific constraints and proposals to reduce constraints to enhance densification opportunities; and
- To determine densification alternatives.
2. CONTEXT – SPTC CORRIDOR FRAMEWORK PLAN

2.1. INTRODUCTION

The basis for this Pilot Project Business Plan is the Densification Framework developed for the Southern Transport Corridor of eThekwini (eThekwini 2014). This section provides an overview of the Densification Framework developed for the Corridor focusing on:

- the objectives of the initiative;
- the understanding of the proposed sustainable densities developed;
- the corridor vision developed;
- the sub-corridor visions developed;
- the translation of the visions into a land use management framework; and
- the identification and prioritisation of pilot projects.

For more detailed information the various phase reports for this initiative should be studied in more detail.

2.2. THE SPTC DENSIFICATION INITIATIVE

The Study Area for this initiative is the Unit W of Umlazi forming an integral part of the larger Umlazi area and of the Southern Public Transport Corridor.

Densification and intensification is not new to the Southern Public Transport Corridor, but has been occurring over a number of decades through informal housing development, higher density residential developments, the provision of public facilities and the intensification of economic activity along the length of the corridor.

The City has prepared a Densification Strategy that suggests that densities of more than 80 housing units per hectare should be promoted in nodes linked to the Southern Public Transport Corridor.

The purpose of the study aimed to establish whether levels of density identified within the 'Densification Strategy' developed by the City, could be achieved in the Southern Public Transport Corridor; and if so, how this can be achieved.

In so doing, the 'Densification and Action Plan for the Southern Public Transport Corridor' would need to establish and achieve the following:

- Identify areas suitable for densification within the road and rail corridor and adjacent suburbs;
- Identify specific segments, block, nodes and site specific constraints and proposals to reduce such constraints to enhance densification opportunity take up;
2.3. **THE SPTC DENSIFICATION FRAMEWORK**

The Land Use Framework Report detailed the population projections within the corridor as well as the sustainable thresholds for urban areas and public transport. Each of the sectors provide sustainable thresholds for either a sustainable community or sustainable public transport. The question remained what are the likely densities for the study area factoring in the proposed future growth?

The numbers used to calculate and determine what constitutes a ‘sustainable corridor’, have been generated from various assessments in the Densification Land Use Framework Report including:

- The population numbers associated with the corridor in terms of the population census data (the population numbers were generated as per the planning units and not the project area boundary).
- The requirements from a transport point of view for a sustainable public transport system (an average was determined between low and medium income population over two modes of transport – BRT and Train, which is specific to the Southern corridor).
- The elements and densities required for a sustainable urban area.
- ‘Types of Densification’

The development of a sustainable and efficient Southern Public Transport Corridor is determined by the following factors:

- Total corridor areas = 1 582 hectares;
- Total number of households in associated planning units by 2030 = 175 000 units;
- For the corridor to be viable it has been assumed that the highest concentration of people should be located within the corridor. As it is not possible to relocate the existing settlement it has been proposed that calculations must be based on 50% of new growth and development to 2030 should be concentrated within...
SOUTHERN TRANSPORT CORRIDOR DENSIFICATION

the corridor boundary. The remaining 50% should be located along the feeder routes.

As per the above:

- 175 000 is the total number of households expected to live within the Southern Public Transport Corridor area by 2030;
- An increase of approximately 51 000 households is estimate for 2030 within the planning units that make up the Southern Public Transport Corridor;
- 50% of the expected increase is 25 500 household, the number that should ideally be located within the corridor boundary;

Based on the above the anticipated increase in density in the corridor is calculated as follows:

- 25 500 households / 1582 hectares = 16 du/ha overall density increase (all land, including undeveloped);
- 16 du/ha x 2 = 32 du/ha gross density increase (identifying residential and associated land only);
- A factor of 1.25 if used to calculate net density (1.25 is the difference between gross and net), therefore the net density is a minimum of 40 du/ha increase, to the existing residential density.

The assessment illustrated and emphasised that to generate a sustainable corridor we do not require densities of 150+ du/ha, (gross) but a sustainable community requires a gross density of 24 du/ha. Likewise sustainable public transport for this corridor can run efficiently at 41 du/ha.

The densities required are therefore not unachievable, it is about creating sustainable communities serviced by public transport in the correct locations.

Densification requires the collaboration between a diverse set variables, such as the development of sustainable communities, the reliability on sustainable public transport, infrastructure provisions, government backing and policy, to name a few, to guide the process appropriately. The approach requires policy makers and decision makers in the City to unite, consolidate resources and adopt a ‘big bang’ approach for the development and implementation of this strategy.

Spatial planning should not be prescribed by infrastructure limitations and policy led decision-making. Spatial planning needs to escape the existing planning vortex and be driven by an action led agenda.

Densification is also greater than one principle or application of policy, it needs to be embedded within a wider city argument of creating a ‘Sustainable City’.

This will require a fundamental shift and change to the current planning approach adopted currently. It will require the support of a ‘Bigger Plan’.

The proposed vision and proposed densities identified in the above form part of a detailed study and position paper prepared. It iss not a leap of faith, rather the implementation of a clear plan and vision prepared with insight from the Curitiba case study. Adopting this wider development vision and cohering various initiatives will assist in creating the sustainable city outlined.

This Business Case for the development of the Clairwood TOD is a basic starting point for illustrating to the general public and the private sector that densification can work.
2.4. THE CORRIDOR SPATIAL VISION

The Study Area refers to the Southern portion of the eThekwini Municipality, specifically the South Durban Basin. The project study area extends from the Durban CBD to Isipingo and inland to Umlazi along the Mangosuthu Highway. The major components of the vision for the development of the area are reflected on below.

- **STRUCTURING ELEMENTS:** Major structuring elements along the eThekwini Municipality south coast is the national mobility route, the N2 as well as the M4 highway. The N2 provides the only direct north/south link between KwaZulu-Natal and the Eastern Cape. The N2 and M4 provide the basic structure for the Southern Public Transport Corridor.

- **MAJOR INTERVENTIONS:** A second major structuring element along the eThekwini Municipality south coast is the Port of Durban and the entire Back of Port zone. The future redevelopment and expansion of the existing Durban Harbour as well as the introduction of the Dig-Out Port, at the old Airport site, will have major restructuring emphasis on the southern corridor.

- **IRPTN AND RAIL:** The introduction of the IRPTN system (both rail and rail) establishes meaningful connections from the in-land suburbs to the main line N2 and M4 corridor, connecting the hinterland to the CBD.

- **COMPLEMENTARY AND FEEDER ROUTES:** The main IRPTN rail and road network is accompanied by a series of complementary and feeder routes. These routes provide an intricate web throughout the suburbs connecting the inner suburbs to the main IRPTN stations and routes.

- **GREEN INFRASTRUCTURE:** Creating a meaningful network will enhance and restore the open space system within the Southern Public Transport Corridor as well as the Durban CBD as a whole, and uplift the existing environmental condition of the South Durban Basin area.

2.5. THE SUB-CORRIDOR VISIONS

A clear and distinct densification vision was developed for each of the sub-corridors forming part of the Southern Public Transport Corridor.

**UMBILO SUB-CORRIDOR – CBD EXTENSION, REDEVELOPMENT ACTIVITY CORRIDOR**

It is envisaged that the Umbilo sub-corridor becomes an extension of the existing CBD. The redevelopment of the Umbilo strip will allow for a powerful, mixed use, high density activity corridor.

**CLAIRWOOD /MERE BANK SUB-CORRIDOR – LOGISTICS HUB**

The Clairwood sub-corridor presents opportunities for urban renewal with a focus on high quality business and logistics hub. The Clairwood area is a strategic sub-corridor as it is the convergence for three IRPTN corridors – the C2, C4 and C5 corridors. This sub-corridor also presents two unit opportunities to develop two full TOD type development around the Clairwood and Montclair stations.

**ISIPINGO /REUNION SUB-CORRIDOR – HIGH QUALITY BUSINESS AREA**

The Isipingo sub-corridor will see significant change with the development of the Dig-Out Port. In response to the Dig-Out Port the Isipingo zone will provide a strong commercial and high quality business precinct.

**UMLAZI SUB-CORRIDOR – POWERFUL DENSITIES**

The Umlazi corridor will consist of the highest residential densities within the Southern Public Transport Corridor. The area is primarily residential in nature, however the plan envisages a high density residential corridor consisting of no informal settlements and clusters of high intensity mixed uses nodes located at strategic points within the sub-corridor.
2.6. THE PILOT PROJECT SHORT LIST

In the period February to April 2014 a number of potential opportunities for densification projects were identified through engagement with various eThekwini Departments (most notably eThekwini Transport Authority and Housing) and the Project Steering Committee, as well as based on the extensive assessments undertaken by the Team in previous phases.

Through this process a number of potential densification opportunities were identified and presented to stakeholders initially in the Land Use Framework. The opportunities identified included:

- Umbilo Corridor
- King Edward Node
- Rosssburgh Station
- Clairwood TOD
- Clairwood South
- Reunion TOD
- Isipingo TOD
- Umlazi W Section
- Lindokuhle
- Umlazi Housing

2.7. PROJECT SELECTION

The assessment of projects was key to the process as the most significant and feasible opportunities had to be selected. The basic criteria used in the selection process was:

- Accessibility of the Site;
- Land Availability and Ownership;
- Densification Opportunity Offered (Extent and Relevance); and
- Intensification Opportunities.
- The cost of the land (if not Council owned);
- The current zoning and development parameters;
- The market to be targeted with the development of a specific site.

Based on this the Pilot projects selected were:

- The King Edward Residential Precinct;
- The Clairwood Transport Orientated Development (TOD);
- The Umlazi Affordable Accommodation initiative; and
- The Umlazi Housing Income Generation project.
DIAGRAM 2.1: TRANSLATING THE VISION INTO A SPATIAL FRAMEWORK / LUMS GUIDELINES
3. THE UMLAZI CORRIDOR

3.1. LAND USE IN THE CORRIDOR

The Umlazi Corridor is largely characterised by urban formal and urban informal residential settlement, with pockets of commercial development along the rail and road network.

The Umlazi area is comprised of primarily single story dwellings on a single plot, which accommodates income earners in the low to middle income group. The area is also subject to large pockets of informal settlements.

The existing densities within the area are relatively high, in comparison to other residential neighbourhood within the city. The area accommodates a number of temporary residents in the form of students and casual labourers, therefore rendering the area in constant flux.

IMAGE 3.1: EXISTING RESIDENTIAL NEIGHBOURHOOD WITHIN UMLAZI

3.2. ZONING IN THE CORRIDOR

The current zoning in the corridor is reflected on in the tables below.

TABLE 3.1: ZONING IN ZWELETHU PRECINCT

<table>
<thead>
<tr>
<th>CURRENT ZONING (PRIMARY ZONES)</th>
<th>BASIC DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic</td>
<td>This Precinct comprises Zwelethu Station as well as the area from the beginning of the Umlazi sub-corridor to Umlazi S section. This area is a mix of civic, mixed use, education and residential. The portion identified as Public Open Space has been settled on and contain a very dense informal residential community.</td>
</tr>
<tr>
<td>Educational</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td></td>
</tr>
<tr>
<td>Mixed Use</td>
<td></td>
</tr>
<tr>
<td>Public Open Space</td>
<td></td>
</tr>
<tr>
<td>Utility</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 3.2: ZONING IN KWA MNYANDU PRECINCT

<table>
<thead>
<tr>
<th>CURRENT ZONING (PRIMARY ZONES)</th>
<th>BASIC DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>This Precinct comprises the KwaMnyandu Station and the residential areas from Umlazi S Section to the edge of Umlazi D section.</td>
</tr>
<tr>
<td>Educational</td>
<td>The Precinct contains primarily residential neighbourhoods with three pockets of Public Open Space, an education facility and a small mixed use cluster behind the KwaMnyandu Station.</td>
</tr>
<tr>
<td>Public Open Space</td>
<td></td>
</tr>
<tr>
<td>Utility</td>
<td>The areas identified as Utility refer to the KwaMnyandu Station precinct and rail property.</td>
</tr>
</tbody>
</table>
### TABLE 3.3: ZONING IN UMLAZI PRECINCT

<table>
<thead>
<tr>
<th>CURRENT ZONING (PRIMARY ZONES)</th>
<th>BASIC DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>This Precinct runs from the Umlazi W Centre to the educational facilities along Mangosuthu Highway at the intersection of Emthethweni Road and contains the Lindo Kuhle Station.</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>The Mixed Use cluster identified at the Umlazi W Centre forms an important node along the Umlazi sub-corridor. This node contains commercial/retail opportunities, a taxi rank as well as social facilities.</td>
</tr>
<tr>
<td>Utility</td>
<td>Three other mixed use pockets are located around the Lindo Kuhle station.</td>
</tr>
<tr>
<td>Educational</td>
<td>The majority of the precinct contain residential settlements with education facilities and civic clusters identified.</td>
</tr>
</tbody>
</table>
DIAGRAM 3.1: CURRENT LAND USE IN THE CORRIDOR
DIAGRAM 3.2: LAND USE FRAMEWORK
4. THE DESIGN CONCEPT

4.1. DESIGN CONCEPT

SITE CADAstral
The Umlazi Housing provides an opportunity for infill and densification within the existing residential neighbourhoods. Sites within approximately 1.5 kilometres from the IRPTN system will be granted additional rights to increase their FAR.

MOVEMENT AND CIRCULATION
The movement and circulation is based on the existing residential layout, no additional changes will be necessary.

LAND USE
The additional development proposed for the Umlazi area should all be residential in nature. The proposal suggests additional dwellings or floors be developed, where appropriate, to existing residential houses.

BUILT FORM
The redevelopment of existing residential properties should conform to the existing residential character. The residential units should not no hig...
4.2. DESIGN CONSIDERATIONS & SITE DEVELOPMENT PLAN

The Umlazi area accommodates a fairly high density, residential community. Despite the existing high densities, additional accommodation is continually sought after, in the form of student accommodation, casual labourers as well as for illegal squatters. As a result, additional dwellings (in some cases illegally) are developed on single sites.

With the introduction of the IRPTN system, properties in close proximity to the system will experience increased pressure and demand. Therefore, in order to accommodate the increased demands, additional rights are proposed to all properties within 1.5 kilometres of the ITPTN system, both road and stations precincts.

The increased residential densities proposed fall in alignment with the findings of this and previous eThekwini studies prescribing particular areas to a minimum of 81 du/ha to support a sustainable neighbourhood, sustainable public transport and to facilitate the anticipated future growth of an increased 41 du/ha. In spite of the studies finding, the Umlazi Housing project will not aim to achieve 81 du/ha, however, does promote more compact, dense environments within the outlined areas for the project.
The approach is to allow individual property owners to benefit from the growth and demands within the area. Conventionally, property developers would benefit through the consolidation and redevelopment of sites. It should be noted that the consolidation and redevelopment of sites, where deemed appropriate by the eThekwini Municipality, is not precluded from this proposal, however it is not the primary intention.

The intention is to allow individual property owners the ability to increase their existing threshold of their properties to accommodate the rising demands for student or other accommodation. This will allow property owners to benefit from additional income and in turn boost their monthly income.

An investigation could be established whether individual property owners, as part of this scheme, could benefit from applying for a form of subsidy to assist in the financing of the additional units as well as the Municipality with the accommodation of some of their housing backlog, should the proposed extension or additional accommodation meets the eThekwini and other building standards.
4.3. ARTIST IMPRESSIONS OF THE PRECINCT

DIAGRAM 4.3: ARTIST IMPRESSION 1
DIAGRAM 4.4: ARTIST IMPRESSION 2
DIAGRAM 4.5: ARTIST IMPRESSION 3
DIAGRAM 4.7: ARTIST IMPRESSION 5
4.4. SCHEDULE OF BUILDING GLA

A schedule of building GLA is not possible for the Umlazi Housing project as the development will be subject to individual property owners. Building guidelines and controls will be outlines in the amended Town Planning Scheme.