

KWAMASHU REGENERATION PROJECT

COMMUNITY RESIDENTIAL UNITS

STATUS QUO

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List of Abbreviations

CRU	Community Residential Unit(s)
H3	Dwelling Unit (in terms of NBR)
IDP	Integrated Development Plan
NBR	National Building Regulations
NDHS	National Department of Human Settlements

List of Images

The Relationship between Density and Housing Typology

Table 3.6.1. Targets and Delivery 2010/11 to 2013/14

1. Introduction

1.1. eThekwini Municipality

According to the **Draft Integrated Development Plan (2013/14)** (IDP) for eThekwini Municipality, the population count is estimated to be approximately 3,555,868 in 2015. Increase in population has an effect on the city's economic, social and environmental aspects, giving rise to the need for employment opportunities, **housing**, education and other social services within the city and its periphery. The economically active age group is between 15 to 59 years old and constitutes about 67% of the overall population within the eThekwini Municipality. (eThekwini Municipality; 2014).

1.2. Housing Status

The provision of adequate shelter for residents is a priority in the municipality, and to date, the municipality has delivered approximately 168,000 houses, and 65 Community Residential Units comprising of 450 units, delivered as part of the hostel upgrading project between 2012/2013.. The total backlog for housing provision is just over 404,000 dwellings (eThekwini Municipality; 2014).

1.3. Health and Safety

The IDP review of 2010/2011 of the eThekwini Municipality is mandated towards promoting and creating a safe, healthy and a secure environment. All citizens need to feel safe while travelling as a driver, a pedestrian and as a passenger and all citizens need to be safe from fires and emergencies and to be safe from crime (eThekwini Municipality; 2010).

Designing of spaces that increase visibility and reduce access and escape routes for criminals, improving lighting, clearing bushes and rubble and the management of high activity areas are strategies of managing and eliminating spaces that are prone to crime.

2. Department of Human Settlements

2.1. Policy Context

2.1.1. Community Residential Units (CRU)

The CRU programme is a nationwide programme that was adopted and implemented in 2006. The programme is the successor of the National Hostel Redevelopment programme and the proposed Affordable Rental Housing program (DHS; 2009a). It affords low income earners **(R800 – R3500 per household per month)** an option of rental housing accommodation and an opportunity to access the housing market. The programme aims to facilitate the provision of secure, stable rental tenure for the target market for individuals and families. The programme offers a range of options to cater for all levels of affordability and preferences that is, from rooms with shared facilities, bachelor flats to self-contained family flats. (DHS; 2009a)

2.1.2. Social Housing

The Social Housing programme caters for the upper end of low income market **(R1500-R7500 per household per month)**. As per the CRU programme, the Social Housing programme caters for both individual persons and families or groups (DHS; 2009b).

To access the Social Housing grants and to prepare a detailed feasibility study it is advantageous to involve an accredited Social Housing Institution (SHI) in the project inception stages and throughout the project to the management of the stock. There are currently two accredited SHI's operating in the eThekweni area, First Metro and SOHCO.

In KwaMashu A, it is recommended that there is a mix of CRU and Social Housing stock within the overall development to provide a range of accommodation for different income groups.

2.1.3. Feasibility Study

A feasibility study is required to prepare an assessment of the already existing structures (hostels), a socio-economic survey to determine the need and the affordability of converted accommodation, an urban design framework, a conceptual design, preliminary cost estimates and a financial viability study and cash flows. (DHS; 2009).

2.1.4. Design and Development Processes

The KwaMashu A Regeneration Project must convert single sex dormitory accommodation with inadequate facilities, privacy and security into an integrated, quality and sustainable environments with units that are affordable to the target market (DHS; 2009). The buildings must be in line with good design and building standards (NBR) to ensure proper living environments. The new buildings may range from single storey to two to four storey walk-up units or higher if mechanical lifts are considered.

CRU and Social Housing policy recommends a **range of unit sizes** from bachelor units to three-bedroom units and up to twelve rooms sharing facilities.

It is recommended that unit sizes do not exceed two-bedrooms until some of the backlog has been dealt with, and no more than six rooms share facilities to ease management issues.

2.1.5. Cost and Funding Mechanism

Total Project Capital Cost comprises of the cost of feasibility, the cost of community facilitation, the tenanting cost, the cost of works carried out throughout the project and the professional fees for different professionals involved in the project (DHS; 2009).

E.g. Cost= Enclosed floor area (all levels of the building) x Rate/m²

The CRU Subsidy provides funds every five years for the maintenance of the housing asset in addition to the tenants' rents that are used for maintenance and the management of the housing asset. The operating funds, includes the administration costs, emergency and general up keeping of the housing asset. The operational funds are from the rents paid by the tenants (DHS; 2009). To cut down on building and labour costs, the "sweat equity" method may be utilized as a rent relief method.

2.1.6. Scopes of Works

It is recommended that the KwaMashu Regeneration Project employs a simple demolition of the existing hostels. After the demolition, the site will be rehabilitated and prepared for the new buildings. The scope of works are highlighted, but not limited to the following:

Simple demolitions (single storey buildings), including rubble removal and site rehabilitation (DHS; 2009):

- Carry out community facilitation workshops
- Arrange and carry out temporary and/or permanent relocation of residents
- Obtain demolition permit
- Disconnect water and electrical supplies
- Erect all necessary temporary supports and stays, hoardings and fencing
- Seal off existing water supply pipes, electrical supply cables and soil drain below ground level
- Demolish structure and clear site of rubble

New Build Infill (DHS; 2009):

- Design development and technical documentation
- Building Contract Procurement
- Construction and contract administration
- Contract Completion, hand-over and close-out
- Leasing, tenant training, and handing over unit

3. National Building Regulations (NBR)

The design of the units must comply with SANS10400 National Building Regulations.

3.1. Occupancy

Where one or more dwelling units occupy a single site, the class of occupancy of the building is H3, Domestic Residence. The buildings is to be designed for a population of 2 persons per bedroom in accordance with SANS 10400-A:2010. The ground storey of the units must be universally accessible, and ramps, stairs or driveways must comply in width and steepness for the use of persons with disabilities.

3.2. Plan Dimensions

In accordance with SANS 10400-C:2010, no habitable room shall be less than 6m² with no linear dimension less than 2m. The minimum height of a habitable room is 2,4m. The total floor area shall not be less than that necessary to provide one habitable room and a separate room containing toilet facilities.

3.3. Refuse

An adequate storage area must be provided for refuse containers which has access from the street in accordance with SANS 10400-U: Refuse Disposal.

3.4. Geotechnical Investigation

A geotechnical site investigation will be required for all buildings in accordance with SANS 10400-H: 2012 – Foundations.

3.5. Stormwater

Stormwater from the roof, paving or area in the immediate vicinity of the building shall be controlled so as not to cause damage to the buildings in accordance with SANS 10400 - R: 2011 – Stormwater.

3.6. Fire Protection

Hose reels are to be installed in any building of two or more storeys in height in accordance with SANS 10400- T: 2011- Fire Protection. Fire hydrants are to be installed at a distance no greater than 90m from any building.

3.7. Energy Efficiency

The design and specification of the walls, roof and windows etc. must comply with SANS 10400-XA: 2011 – Energy Usage in Buildings.

4. Densities

2.6 THE RELATIONSHIP BETWEEN DENSITY AND HOUSING TYPOLOGY

The following pages demonstrate what different net density 'numbers' look like and the relationship between density and housing typology. As a general rule the relationship between housing typologies and density is impacted on by development controls such as parking standards, set-back lines, coverage and FAR controls etc.



Abstract from EThekweni City Density Strategy Report (2013) by Royal HaskoningDHV (Pty) Ltd

In South Africa, density is generally defined as low at 40du/ha, medium between 40 and 100 du/ha, and high at 100 du/ha. Different densities have different development implications, as listed below (Poulsen & Silverman; 2005):

Advantages of high density development:

- Supports the viability of public transport
- Creates thresholds for viable shops and social amenities
- Address the housing backlog

Advantages of low density develop:

- Has some potential for additions over time
- Provides relatively generous amounts of private outdoor space
- Has potential to accommodate a diversity of household arrangements (nuclear families and/or extended families)

Disadvantages of low density development:

- The architectural quality of this development is (usually) poor
- Development of this nature requires large amounts of land
- Low residential densities generate inadequate thresholds for delivery of urban services such as electricity, water, public transport, roads and social amenities.

5. KwaMashu CRUs

Table 3.6.1. : Targets and Delivery 2010/11 to 2013/14					
Indicators	Service Targets	2012/2013		2013/14	
		Target	Actual	Target	Actual
Housing Delivery (Units)	New houses constructed	7,200	4,181	7,200	6809
Housing – backlog. (Based on 2007 dwelling count until 2011, thereafter 2011 dwelling count used. No growth rate factored in.)		401 194	404 192	396,992	397,369
Sale of Rental Stock		700	558	1500	917
New Family Units		75	104	100	48
etc.					

Source: ezasegagasini-metro/20-february---05-march-2015

Two CRUs have been built in KwaMashu A on Musa Road, Ward 39 and 40 since 2008. The units are 2 storeys high and consist only of 3 bedrooms units. Each block comprises of 48 units.

Two existing hostels were upgraded and two new blocks built between 2004 - 2007 in KwaMashu A on the corner of Kholwa and Jabula Rd.

6. References

6.1. Interviews

eThekwini Human Settlements

CRUs

- | | | |
|--|----------------|------------------|
| 1. Project Executive (not interviewed) | Walter Ngubane | ph. 031 311 3438 |
| 2. Project Manager | Thula Pakathi | ph. 031 311 3440 |

Professional Consultants

CRUs

- | | | |
|-----------------------------|---------------|------------------|
| 1. SLB Consulting Engineers | Leonard | ph. 083 625 0378 |
| 2. SLB Project Manager | Devraj Naidoo | ph. 072 118 1494 |

Interim Services

- | | | |
|----------------------------|--------------|------------------|
| 1. Aurecon Project Manager | Justin Sulla | ph. 031 714 2500 |
|----------------------------|--------------|------------------|

6.2. Desktop

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