

---

**SUPPORT PROGRAMME FOR SOCIAL HOUSING**

**The architectural component**

**A critique of 4 projects: The Johannesburg Housing Company (JOSHCO)**

Compiled by:

**Amira Osman** Architect ([amira.osman@up.ac.za](mailto:amira.osman@up.ac.za); +27 83 287 4006)

**Clinton Hindes** Landscape Architecture Input

**Nicholas Clarke** Technical Input

## Contents

1. INTRODUCTION
2. STRUCTURE OF THE REPORT
3. PURPOSE
4. SPECIFIC ACTIVITIES
5. DESIGN CRITERIA
6. PROPERTY DEVELOPMENT PROCESS MANAGEMENT
7. CHECKLIST FOR USE IN 4 JOSHCO PROJECTS
8. ASSESSMENT OF PROJECTS
  - A. Lombardy East Housing Project
  - B. Roodepoort Inner City Housing Project
  - C. Klipspruit Mixed Income Housing Development
  - D. Redevelopment of Selby Hostel to Social Housing Units
9. RESULTS
10. PROPOSALS WITH A FOCUS ON HOSTEL REDEVELOPMENT

### **1. INTRODUCTION**

The initial Terms of Reference for this section of the project lists the specified objectives for JOSHCO as follows:

Specific objectives as stated in the TOR:

1. supplement and develop the capacity of specific SHIs to develop sustainable social housing products by availing a resource pool of property development experts.
2. assist specific SHIs develop social housing projects that will serve the needs of low and middle income households in the community.
3. assist specific SHIs develop a "pipeline" of social housing projects that will enhance their ability to become sustainable institutions.

Our interpretation of the TOR is that we are required to give SHIs some tools, and assist in their internalisation, to understand both the theory and the practical aspects of the above approach to property development, and to help them realise that development (design, procurement,

construction) is not an end, but merely a means to a more important end of attracting and keeping paying customers in a socially, functionally and financially sustainable enterprise.

Although complex in the detail of daily execution, the business of a social housing institution (SHI) at conceptual level is relatively straightforward. To be sustainable, SHIs must:

- Have a clear understanding of the market in which they operate
- Have a clear strategy for engaging this market
- Build or acquire well-designed, good quality stock of the right type and in the right location, and maintain it to retain asset value and customer satisfaction, and reduce tenant turnover and long term operating costs

It is evident from the final point that **design QUALITY** plays an important role in achieving **ASSET VALUE, CUSTOMER SATISFACTION and LONG TERM RELEVANCE with OPTIMUM MAINTENANCE COSTS**

## **2. STRUCTURE OF THE REPORT**

Sections 3 and 4 summarise the purpose and specified activities of this part of the research project. The compilation of a theoretical position is then attempted in sections 5 and 6, related to design and the management of the design process. This provided the base for developing the set of criteria that is attached at the end of the document. The 4 projects were then assessed in section 8. This was carried out through a desk top study based on the submitted documentation only. As far as possible we have tried to indicate where information is missing. Section 9 is a summary of the results and section 10 focuses on the Hostel redevelopment as these projects are believed to have unique complexities. At the end of the document tables showing summaries/comparisons of the various criteria are attached to allow for easier access to the document.

## **3. PURPOSE**

The purpose of this report is to assist JOSHCO in implementing best practice processes for planning and managing project development services and also to improve their skills in understanding the planning and management of the project development services required to do new property development. JOSHCO also needs support in understanding and managing the

planning services required to do new property developments and also an understanding of the different processes involved in Hostel redevelopments.

With this document we hope to achieve the following results:

1. share a theoretical understanding of the roles and responsibilities of professionals in property development
2. provide a sound basis for site assessments, planning and design
3. develop a set of criteria that can be used for assessing a submitted design and to allow for more meaningful interaction between the SHI and the appointed consultants

The capacity of JOSHCO is thus supplemented and developed through the additional input of professionals in the design fields. In this way we may assist the SHI in better serving its purpose to provide housing aimed at satisfying the needs of low and modest income households in the community.

For the SHI to be financially viable it needs a sustainable "pipeline" of social housing projects thus a system for assessing these projects and monitoring the input of professionals needs to be developed. SHIs should understand what to expect in terms of professional services in order to be in a better position to monitor the QUALITY of their housing stock which would then have major implications in terms of their long term sustainability, financially, socially and environmentally.

The technical support offered is in relation to the project development services aspects of JOSHCO's new property acquisition activities, including new "greenfield" development, building remedial, renovation and building conversion projects. The purpose of the project is to capacitate the clients through actual property development. In the process the planning services expert may be required to work with other subject matter experts (quantity surveyors, engineers, architects, financial managers for example) in revising the property development plans as needed to achieve long term sustainability and success when measured against the financial viability criteria.

The professional team acts as a resource to the client to further the client's interests in property development. Finally, the consultant assists the client to ensure that the best practices of managing professional services related to new property development are embedded in the client's operating procedures.

#### 4. SPECIFIC ACTIVITIES

This report provides these services to the Johannesburg Social housing Company, located in Johannesburg, Gauteng Province:

- Provides the client with advice in relation to analyzing the dynamics of the site and appropriate design responses related to those dynamics
- Assists the client in good site planning approaches
- Assists the client to develop a set of criteria with which they can assess the input from various consultants and better communicate with those consultants
- Assess the residential units in terms of layout, materials, space articulation and relationship to the overall site layout
- Advise the client in terms of optimum design for sustainability, safety and economy

The above is presented as notes, diagrams and an oral presentation can be made if requested.

#### 5. DESIGN CRITERIA

Good design principals in general also apply to residential architecture. These principals include a contextual approach where a design is generated through response and sensitivity to context. Environmental sustainability and energy efficiency through passive means is also crucial. Spatial quality, accessibility, quality, aesthetics and variety (to accommodate for various tastes and various income levels) are always to be considered in any design project. Yet, there are some aspects that are unique to housing developments in the inner city and that need to take prominence in the design process.

Subsidized, inner city rental housing stock poses various challenges to the designer. Some of these are explained below as related to various levels of the development:

**Urban design** a good urban design framework contributes to the overall success of street and open space design, contributes to passive surveillance and sense of ownership, creates a sense of orientation and hierarchies and spatial clarity.

**The buildings and interiors** need to complement the urban design framework. Other issues particular to social housings are those of quality living in small areas through optimizing space

and the design of products and furniture specific for these small areas. This is still unexplored in South Africa to a great extent.

**Financial sense and market viability** by keeping rents affordable while maintaining quality. Adjusting to need makes sense market-wise and in terms of sustainability by keeping a building useful for as long as possible.

Design parameters will change depending on whether one is dealing with a greenfields project or a conversion. Each one of these poses various constraints and opportunities.

A summary of good design principals in social housing can be listed as follows:

- Densify as low-density is firstly unsustainable and it also mitigates against the creation of sufficiently high income thresholds to support small-scale economic activities. Higher densities also allow easier access to amenities essential for housing developments and create more cultural variety and vibrancy.
- Define routes and create a hierarchy of spaces – identify ownership through design. Address the issue of progression from public, to semi-public, to semi-private and private spaces. Create a balance between the individual and the collective. Create buffer zones as threshold into private domains.
- Integrate the housing development with the surrounding urban fabric.
- The hierarchy of streets needs to be related to the hierarchy of spaces and these need to be given identity and character through the creation of a variety of strategically placed nodes. These nodes can be visual or functional.
- Address the pedestrian scale, especially as related to semi-private and private domains.
- Create a variety of options regarding housing types (size, form, density) when possible allow for the possibility of future changes and transformation to address changing market demand and need.
- Investigate housing options such as row housing, walk-up units, the enclosed block: experiment in the design of housing rental stock. Provide choice and variety. Explore alternative materials and techniques
- Remember that housing alternatives have the power to change perceptions about housing for both people and the government.
- Design for affordability and optimization: every cubic cm counts.

Design economics and lifecycle design are important factors that can be provided for through the following:

- Design for maximum gross income:
  - Marketability (functionality, aesthetics)
  - Design efficiency (optimum use ratios, common areas, & rentable areas)
  - Optimise development rights
  
- Design for low building cost:
  - Working with the site (topography, etc.)
  - Buildability and completeness of details
  - Standardisation
  - Design geometry (shape, layout, height, etc.)
  - Specification alternatives
  - Co-ordination with structure and services (spans, loads, type and position of plant and distribution of services, etc.)
  
- Design for long life & low operating cost:
  - Intrinsic durability + value
  - Passive design/energy efficiency
  - Functionality and flexibility (initial use +future adaptation)
  - Understand how it will be used + operating environment (*work with property managers*)
  - Ease of maintenance: how cleaned, reached, repaired, replaced?
  - Life cycle costing (LCC)

All the above needs to be tackled with an understanding that:

- Economic design not necessarily cheap!
- Cheap design not necessarily economical!

## **6. PROPERTY DEVELOPMENT PROCESS MANAGEMENT**

Managing the process of developing any project is as important if the intended outcomes of the design are to be achieved. The design and implementation processes are equally important and **QUALITY CONTROL** actually needs to be initiated at design stage.

The design process can be divided into the following:

## PLANNING

This includes goal-statement, programming, data-collection, analysis and goal elaboration.

## CONCEPT FORMULATION

The concept usually comprises both arbitrary views such as personal ideas and preferences, as well as a reaction to existing constraints such as contextual consideration and technological development.

## DEVELOPMENT

At this stage the selected solution is refined in terms of feasibility and it is tested against the original goal-statements.

A Social Housing Institution needs to know the scope of an architect's services and what to expect at each stage of a project's development. The following guidelines will help monitor if good value is being obtained from architectural design services:

**Project initiation/validation or idea phase** Conceiving the development idea or concept and initiating the project, including gaining control of a site that suits the idea. In this phase critical decisions about the proposed nature and locality of projects are taken by SHI boards and staff themselves. Although external specialists are asked to assist in gathering and interpreting information, and advising on directions to take, the SHI must at all times drive these decisions.

**Pre-design phase** - Preliminary designs and studies to see if the idea is viable, and if it should be proceeded with or not.

If it is decided that project would proceed then the following stages are followed:

### STAGE 1

The architect at this stage should discuss with the SHI the requirements of the project. The architect will expect from the SHI information regarding the site and budget and expectations from your side as an institution. The architect should then compile a BRIEF. The architects should advice you on procedures to meet your requirements and the need for the appointment of consultants.

### STAGE 2

The architect should prepare a concept design in broad outline showing site use, internal space provisions, numbers of units and types of layouts, materials and services. The



technical and functional characteristics of the projects should be articulated by the architect, the estimated costs explained and a preliminary project programme developed. A report needs to be compiled for the client at this stage.

### **STAGE 3**

After the client (Institution) approves the design concept, the architect will then proceed to develop this design to some detail showing the construction of the building, coordination with other consultants and reviewing the design as related to relevant authorities. A report needs to be compiled for the client at this stage.

**Pre-contract design development phase** Refining and finalising designs, cost estimates and feasibility studies, preparing technical documentation, and initiating marketing and securing of funding. During this phase the SHI must constantly monitor that the final designs, cost estimates and feasibility studies remain within the concepts and parameters set, (and adapted as necessary) during the project validation and appraisal phases above. During this phase, it is found that changes to the originally approved decisions need to be made, these must be thoroughly motivated and accounted for in revised designs and feasibility studies.

**Feasibility** – means the overall practical executability of the project. Is there a demand, can and may the proposed buildings be built on the chosen site at a reasonable cost, and so on? A positive result from this part of the study merely supports the final decision, and can not be used on its own to justify proceeding with the project

**Viability** (more specifically **financial viability**) – means there is financial justification for carrying on with the project. In other words the project income will exceed the project expenses (loan repayments, property running costs, etc.), **and generate a project surplus that can contribute its fair share to the general administration costs (overheads) of the institution.**

If the indications from the above studies are positive, steps are taken to prepare for implementation. For example the land is secured, funding applications are initiated, and the briefs of professionals are extended to help with planning and executing the project.

In these first two phases the SHI must really apply itself to thoroughly consider the information before it, and make the "right" decisions. The decisions made here will place the SHI and all its professional service providers on a specific course of action that will almost immediately start

requiring real investment (**funding!**), and result in a particular end-product. From here on much of the technical detail of decisions and actions will be in the hands of external service providers who must be well managed by the SHI to stay on track.

Too often, we are presented with only one design and a financial feasibility study in which the figures have been "massaged to make that particular design viable. Remember that consultants are inherent optimists – their livelihood depends on projects going ahead. This is not to say they manipulate figures dishonestly, but they tend to be not critical enough.

#### **STAGE 4**

After the approval by the client of the developed design the architect will then proceed to prepare the construction documentation while all the time coordinating this development with the various consultants and should then proceed to obtain approvals from the relevant authorities.

An SHI relies heavily on the integrity and capability of others to ensure it gets the above things right. The real challenge for an SHI therefore, is to be able to select, evaluate, brief, monitor and control its agents and service providers, and we believe that this contract will well to help them on that path.

The SHI must understand (and be able to manage) the truth that **development configuration** (urban design, site land building layout, unit type and design, tenure options, etc.) is determined not so much by its own perhaps sometimes stereotyped conceptions, as by:

- **Target market needs and preferences**
- **Life cycle costs and long term management and maintenance considerations**

#### **7. CHECKLIST FOR USE IN THE 4 SUBMITTED JOSHCO PROJECTS**

Based on the above, a set of criteria was devised for use in the assessment of the 4 submitted projects. This is attached at the end of the report. The criteria are grouped according to what are believed to be good design performance in terms of

- the relationship to the surrounding context, and what is existing on the ground and the dynamics/constraints/potentials of the surroundings
- the site planning and layout

- the quality of the open spaces
- residential unit designs
- circulation and servicing strategies
- safety and security and accessibility
- the potential for personalisation and participation initially and throughout the life of the project
- sustainability in terms of energy and resource efficiency
- town planning requirements
- the financial implications of design decisions
- community participation and consultation

## **8. ASSESSMENT OF PROJECTS**

With the above in mind the 4 projects are assessed as follows:

### **8A. Lombardy East Housing Project**

This is a new social housing project aimed at residents seeking accommodation in the greater Alexandra area. The site falls outside of "Alexandra proper", but falls within the greater Alexandra area. The site is a 4.1 Ha vacant site belonging to the City of Johannesburg in the Lombardy east Township made available to Joshco by the Alexandra Renewal Project.

There is a proposed mix of housing typologies from bachelor to three story walk-ups. According to zoning requirements, the maximum density is 150 units per Ha. This gives the potential of 600 units (1200 beds) with 400 subsidized units and 200 non-subsidized units. (Phase 1 will be 300 units). The only tenure offered is rental accommodation or instalment sale.

The stated project goals are as follows:

Rejuvenate the area

Reverse the downward spiral of the local economy

The project will be a catalyst for the economic and social rejuvenation of the area.

The documentation provided:

Draft Business Plan: Proposed Residential Development on Portion 1 of Erf 357 Lombardy East – Prepared by Setplan (March 2005)

Lommardy East / Riverpark: Site assessment and Selection Report – Prepared by Joshco  
(1 Feb 2005)

A comparative analysis of two potential sites was undertaken with the Lombardy Estate site being identified as the better option. In terms of the location within the city, access to work, facilities and transport the following is noted:

- Access to the immediate suburban road network is good as the project has roads bordering on three of its four sides which would facilitate efficient traffic flow. Yet, connection to the broader public transport network is poor. There are few facilities, services and public amenities in the immediate context. Easy access to pedestrian connections to the nearest facilities should be planned wherever possible. It is appropriate therefore to have facilities such as the proposed on site crèche, laundry and “lapa”.
- A very good synopsis of the immediate surroundings and their implications for the project is provided. It is not clear however whether all the issues raised and proposed actions are being drawn through to the site layout plans, such as the specific treatment of the highly visible NE corner which is not visible on the plans.

Site planning is not optimised for passive solar design with many blocks facing east-west instead of north-south. This makes solar access to living areas difficult to plan for.

The project is of a large scale (up to 600 units), but consists of a variety of block forms, heights, and a high degree of richness within the façade’s visual texture. This contributes to a perception of lower density. The blocks address the street in a variety of ways (due to their diagonal placement), which also adds to the perception of lower density.

Building footprints vary enough in form and orientation to avoid spatial monotony. Private, semi-private and public spaces are established but do not form a legible system of spaces. The semi-private courtyards are unfortunately entirely filled with parking.

Building heights have been varied throughout the project which adds to visual variety. The project will most certainly be visually prominent as the immediate surroundings are either not developed or are low-density single story dwellings. The architectural façade and height variety will reduce the visual intrusion; however the colour of the buildings needs to be carefully controlled. A lighter colour will be less environmentally intrusive.

The blocks have a rich texture provided by variation of the façade through form richness as well as elements such as balconies and pergola's. The design also balances architectural uniformity and variety very successfully.

Regarding the structural systems, the designs are simple and allow for uncomplicated construction. There is however no indication of storm water management/control on the plans provided. The site has a considerable fall towards the NE; storm water will then have to be carefully controlled. This however does offer the opportunity for a storm water retention facility on the NE corner, which is one of the projects intentions.

On-site communal facilities comprise a creche, central refuse area, admin block, multi purpose hall and lapa. For these facilities to function successfully they must be incorporated into a legible system of open spaces so that they are easy to access.

In terms of open spaces (landscape design), the public space to the north, as part of the Alexandria Renewal Project, mentioned in the Site Assessment and Selection Report, should be linked to the project. A pedestrian connection over Burns Street should be considered. This is referred to in the report. The plan does make provision for tree planting, a number of small open spaces and a large internal landscaped park, which, if successfully designed, would lend the development a very positive atmosphere.

There is a variety of spaces provided for different functions: Two public squares and a large communal open space are provided lending variety to the open spaces. Most of the other open spaces are unfortunately allocated for parking. The buildings are positioned diagonally to the site boundaries results in numerous small open spaces. Whilst this adds to the diversity of form and sizes of open spaces, it is more difficult to integrate them into a legible system of open spaces. Trees are placed along sidewalks. Others are randomly placed throughout the development, but should rather be used to define a system of open spaces.

Submitted information does not include the unit designs. Proposed materials are industry standards with little innovation but showing sound long-term usefulness. Exposed timber such as front doors should be painted and not varnished to ensure a longer useful lifespan. A reasonably complete set of standard specifications is provided for. Surface finishes are industry standard and should provide for good wear.

In terms of the specifications:

- Sanitary fittings

The specification of wall hung flush-valve operated toilets seems luxurious for the development. Wall hung toilets are expensive and more complicated to install. Concealed push-type flush valves require high water pressure and accompanying reticulation. Maintenance is very specialist. Standard pedestal toilets with DUAL-flush cisterns are preferable. Provision of a hand held shower in the bath is good.

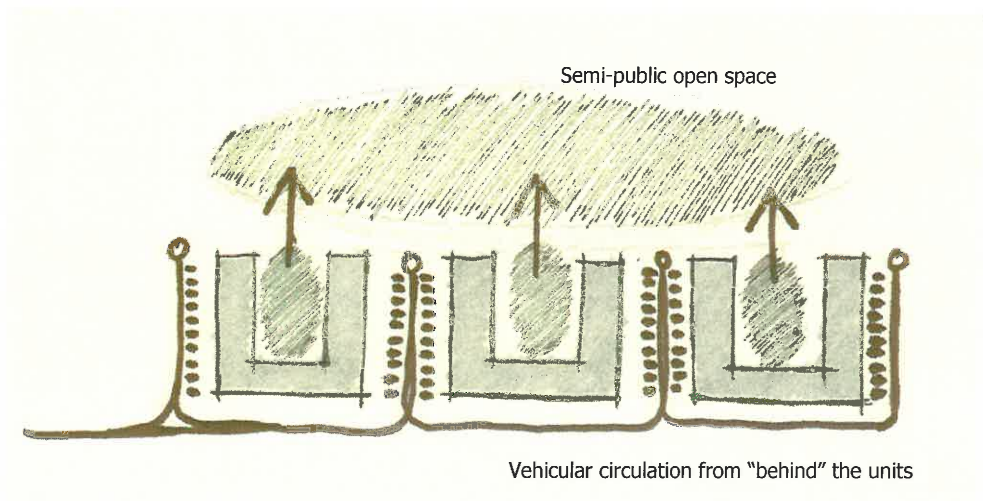
- Geyser: The omission of the geyser tray is not recommendable and might lead to later water damage to units. All geysers should be insulated to conserve electricity and limit heating cost.

- Windows: Smaller paned 'cottage pane' windows provide a higher level of security than larger panes and are cheaper to replace in case of breakage.

- Insulation to roof voids of a minimum of 50mm Mineral Wool is imperative. The omission thereof creates thermally uncomfortable living environments and high heating and cooling loads. Reflective insulation is not very effective in the dusty Highveld climate.

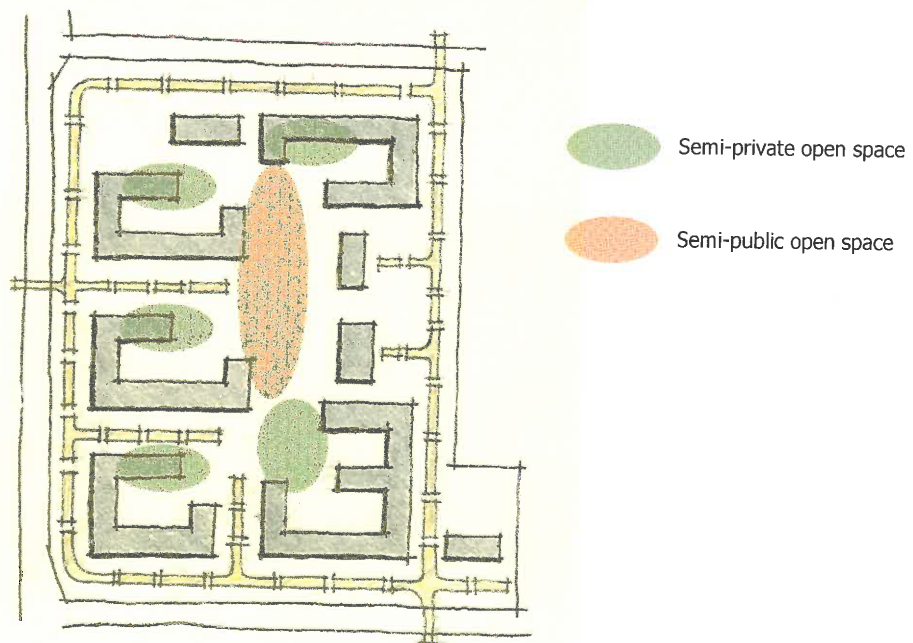
- Floor finishes: Balcony's and public circulation spaces with concrete finishes should be textured and not smooth trowelled to minimise slippery surfaces when wet.

The proposed network for vehicular circulation dominates the site and is largely mixed with the pedestrian circulation. There is however enough open space available for these systems to be successfully separated.



This is illustrated in the above sketch. Pedestrian and vehicular circulation can be separated by allowing vehicles to enter from "behind" the units, and pedestrian circulation from the units into a semi-private space and then into a larger public space without any conflict.

The legibility of pedestrian circulation is compromised. The pedestrian pathway provided alongside the blocks does allow for direct circulation, but the pedestrian circulation across the site is illegible and interrupted by the necessity to cross the internal roads.



The sketch above also illustrates the possible rearrangement of the units for separation of the vehicular and pedestrian circulation systems. The vehicular circulation and the parking are on the edges of the site.

In general, safety and security may be achieved through the gradual progression from private to public space for increased defensibility. In this case parking allocation inside the blocks minimizes the possibility of provision of a mix of private, semi-private, semi-public spaces. The ground floor units do however have a private outdoor space. In some images a large wall blocks the view from the units and the private open space onto the internal courtyard. These should be reduced in height, palisade is recommended. Three well located access points are provided. Smaller

glazed 'cottage pane' windows will allow for more security to each unit. Burglar proofing is an option to be investigated. The provision for night lighting is unclear.

The potential for personalisation is important to achieve a sense of ownership and in a development. What would be needed is as many private entrances as possible (with possibility of personalization of a small entrance space) and avoiding many entrances on long corridors which can become very impersonal and alienating and discourages the use of the space by the residents. Ground floor units with a small private garden separated with a low wall from the semi-private area adjacent are to be encouraged and are provided for in this case. While there is a commendable richness and variety within the architectural character, the need for personalisation is not as strong as would be in a visually monotonous development. Opportunities for personalisation should still however be provided. Spatial interpretations are important in terms of personalisation but it can be noted that there is the potential to paint front doors to personalise individual units.

No indication is given for the material for the parking surfaces, but especially considering the slope of the site, to reduce the run-off a permeable surface such as grass blocks is strongly recommended. No trees are provided for parking, or any other shade structure.

Building efficiency is somewhat compromised as the north facing orientation of blocks G, H and I could be improved. Ceiling insulation is not specified. The buildings don't seem to take any form of climatic design/orientation into account. Cross ventilation should be sufficient. Roof overhangs should be calculated to provide the correct summer solar shading and allow for winter sun into north-facing openings.

Grey water recycling systems should be investigated not as an optional extra but as a need. Rain water harvesting, as a cheap and uncomplicated water conservation technique, should be investigated, even if just for landscaping watering at the minimum.

In terms of town planning requirements it is noted that the suggested change of land use is to be submitted on approval of funding. An environmental screening exercise will also be undertaken.

Four sources of funding are likely to be used for the project: GPG, GPF, RMB and NHFC. The intention is that rentals would be market related and consistent with those in the area. The targeted markets are residents from the greater Alexandria area. The housing demand for the greater Alexandria area is estimated at 30 000 family units. According to the Draft Business Plan



there is a significant demand for housing in this area and there is not expected to be any shortfall of tenants.

The documentation states that community consultation will take place but it is not known whether this has been the case.

### **8B. Roodepoort Inner City Housing Project**

This is a proposed new rental housing development on four infill sites in the southern portion of the Roodepoort CBD. 324 comprising of two story walk-up units divided into various unit blocks housing one- and two- bedroom units. The rental units are anticipated to cost between R950 and R 1500. The stated project goals are listed as follows:

- To develop sustainable and affordable units to serve as a catalyst for the regeneration of the area.

- Build and manage 324 two-story walk-up units.

- The promotion of social integration of communities.

- Satisfy the known need for affordable rental accommodation in the Roodepoort CBD.

- Use of energy efficient building materials.

- Build good quality and affordable products.

- Ensure the space economy is protected and optimally utilized.

The documentation provided includes a project summary, organisational information, project plan, market assessment/research and project specifications. There are also 2 different plans/elevations and 3 different site layout drawings for the Joubert, Nefdt and Kerk Street block. It is unknown which is the latest proposal. The site development plans for the remaining 2 street blocks is also available as well as 2 locality plans. A motivation for subdivisions and consolidation of erven as well as a zoning amendment approval for City of Johannesburg, geotechnical survey and urgency Report No 1 of the Executive Mayor 2004/12/02 are attached.

As the development is in the CBD, a wide variety of facilities are available within a short distance, however due to the developments larger scale, on-site facilities such as a crèche and laundry could be considered reducing the movement of people and especially children through the CBD. The development provides the opportunity for people to walk to work if their place of work is in the CBD. This reduces the pressure on public transport.

Due to the development's location within the CBD the pedestrian connections to the north, east and west from the four street blocks will need to be well developed. These connections need to be designed to be as safe as possible. Points of entry to the site should be monitored and with good lighting.

The project covers 4 street blocks in the CBD and consists of a number of two-story blocks. This is a large scale development and will need special attention regarding variety in its architectural form. This aspect is not adequately addressed as the architecture is visually monotonous. The site lends itself to design for solar access (north facing facades). This should be optimised on with service areas/walkways to the south of units.

Due to the repetition of 2 building footprint types, a meaningful hierarchy of spaces does not develop. The spaces between separate blocks are either too small (and in many cases very linear) or too large. These small spaces may decrease the sense of safety and the large spaces become difficult to design and plan for a sense of ownership and to enhance visual defensibility. The building coverage of some blocks is so high that it will be very difficult to develop a hierarchy of positively defined open spaces.

There is very little variety in the façade design, to the extent that visual identity remains essentially anonymous. This development will most certainly feel like a high density low-income housing development. As a result of strong uniformity and very little variety/richness, it will not be very likely that the residents will develop a sense of community associated with a unique sense of place.

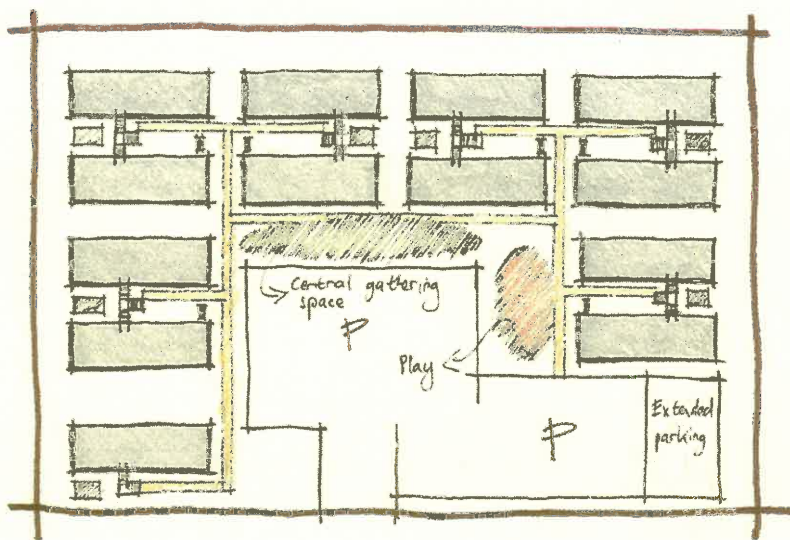
Structural systems are simple and industry standard. Architectural drawings are of standard quality yet issues such as sewerage are not properly attended to.

Again, as in the Lombardy project above, there is no indication of the method of storm water control on the drawings. This is a vitally important issue in this project as the geotechnical survey highlighted specific requirements regarding storm water control.

Due to the repetition of the unit blocks, the open spaces are not integrated into an overall legible network. They are then ineffective in improving the development's overall character. The spaces become left-over / dead spaces and are thus difficult to maintain. The spaces could then become disused and render the whole development with a sense of abandonment.

The only exterior spaces indicated for particular use are the play areas within the rectangular blocks and the drying yards within the H-blocks. With minimal re-arrangement, more spaces could be defined, including a central space which could act as a heart to the layout (see sketch below).

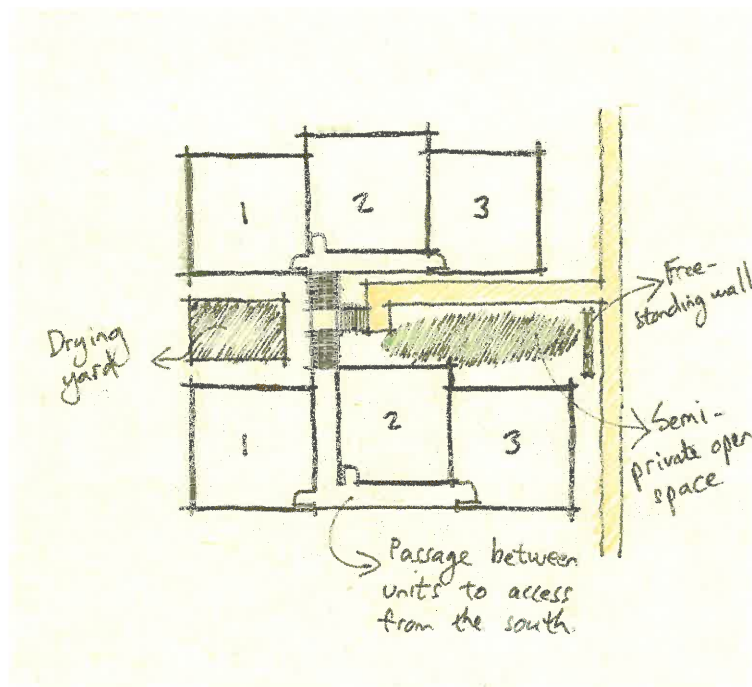
Ground floor private gardens with a low wall could be considered. This is specifically possible on the southern most street block as there is more open space available than in the other blocks.



The sketch shows a minimal rearrangement of the circulation for greater legibility. A central gathering space and a play space are created with minor adjustments to the parking layout. Using trees for shading and visual control such as blocking unwanted views are key to good landscaping practice but in this case very few trees are provided and seem to just be randomly spaced on the drawings.

The units are mirrored in the H shape blocks (between Nefdt, Joubert and Kerk Streets), totally eliminating the desired north elevation of the southern portion of the block. Re-orientating the southern block toward north and providing access to the top floor entrance passage (southern section) by breaking through the block could resolve this. This would also improve the defensibility of the open spaces, as there will be a more balanced distribution of the windows facing the open spaces (see sketch below).

The staircase could also be shifted to align with the new passageway which will create a larger exterior space between the two wings and increase the sense of semi-private ownership.



It is noted that individual unit designs have not been provided for the rectangular blocks (the remainder of the development).

The positioning of sanitary fittings, especially that of toilets is worrying. In their current position piping will be visible and protrude on the walkways to units. Shallow shafts to house sewerage pipes should be provided for and covered over.

It is appreciated that there is an attempt at increasing the visual appeal by including a "decorative panel" of a particular colour on the exterior wall, as specified. However, more needs to be done to create a real sense of visual richness. The visual monotony is especially evident on the north and south elevations of the one-bedroom units of block F.

Proposed materials are industry standards with little innovation but showing sound long-term usefulness. Exposed timber such as front doors should be painted and not varnished to ensure a longer useful lifespan.

A reasonably complete set of standard specifications is provided for. Surface finishes are industry standard and should provide for good wear.

- Sanitary fittings  
The specification single flush toilet flush valves should be re-thought in favour of dual flush valves. Provision of a hand held shower in the bath is would be good.
- Geysers: The omission of the geyser tray is not recommendable and might lead to later water damage to units. All geysers should be insulated to conserve electricity and limit heating cost.
- Windows: Smaller paned 'cottage pane' windows provide a higher level of security than larger panes and are cheaper to replace in case of breakage.
- Insulation to roof voids of a minimum of 50mm Mineral Wool is imperative. The omission thereof creates thermally uncomfortable living environments and high heating and cooling loads. Reflective insulation is not very effective in the dusty Highveld climate.

Pedestrian and vehicular circulation is separated which will minimise vehicular and pedestrian conflict. Large parking spaces are created which could negatively impact in the developments character. These large spaces should be broken up, or at least given a sense of reduced size with tree plantings and / or changes in surface material.

The pedestrian circulation is direct. The creation of a node where the pedestrian routes could converge would however be beneficial and contribute to developing legibility (see sketch in above). Pedestrian access to the units from the street is not adequately addressed, as movement happens straight across the parking lots.

The progression from private to public space happens too abruptly in the unit blocks with the strongly defined internal court yard. The inner court areas are very well defined and semi private, but the next level of spaces are public anonymous spaces.

Entrances are visible; handrails on the first floor are see-through which also assists with good visibility. Semi-private and public spaces visible from interior spaces. Internal spaces of the H shaped blocks are not highly visible from interior spaces as the unit's service facades face these spaces. This can be considerably improved if the southern section of the block is orientated northwards. Access points to the site are well located. Access points are mostly located on the

southern sides of the sites. These may be better on the northern/eastern or western as the pedestrian movement is in this direction.

It is anticipated that there will be considerable pedestrian movement between the blocks and the CBD. This is one of the advantages of being in the CBD. This pedestrian movement must be designed as legibly and safely as possible. No lighting is indicated in the exterior spaces and most certainly needs to be provided. Smaller glazed 'cottage pane' windows will allow for more security to each unit. Burglar proofing is an option to be investigated.

It is also unfortunate that, according to the drawing and the specifications, no roof insulation is provided. The buildings don't seem to take any form of climatic design/orientation into account. By mirroring units, without thought of the impact of orientation, the south-facing blocks have their kitchens/bathrooms facing north – the prime position for living areas. Walkways receive the winter sun which should fall into the dwellings. Cross ventilation should be sufficient. Insulation: see Specifications. Roof overhangs should be calculated to provide the correct summer solar shading and allow for winter sun into north-facing openings. While shade provision can assist with temperature control, no trees are provided or any other shade structure.

Grey water recycling systems should be investigated not as an optional extra but as a need. Rain water harvesting, a cheap and uncomplicated water conservation technique should be investigated, even if just for landscaping watering at the minimum.

According to information provided the zoning amendments have been approved. A full geotechnical report is provided stating the desired foundation types. It is recommended that water must not be allowed to collect on the site. According to the geotechnical survey, surface materials should not be permeable.

The project will be funded by government subsidies and loans from financial institutions. Rental income is expected to be between R950 and R1500 / month. The project seeks to satisfy the demand for housing near to places of work, thus it's location within the CBD. Informal settlements in the area have also been identified as indication of demand.

It is stated that community consultation will take place through the formation of a development forum/residents committee on completion of the project. However there is no indication of involvement at the earlier stages of the project or how the design allows for future adjustments and interventions once it is built. It is not clear how personalisation will be achieved. This

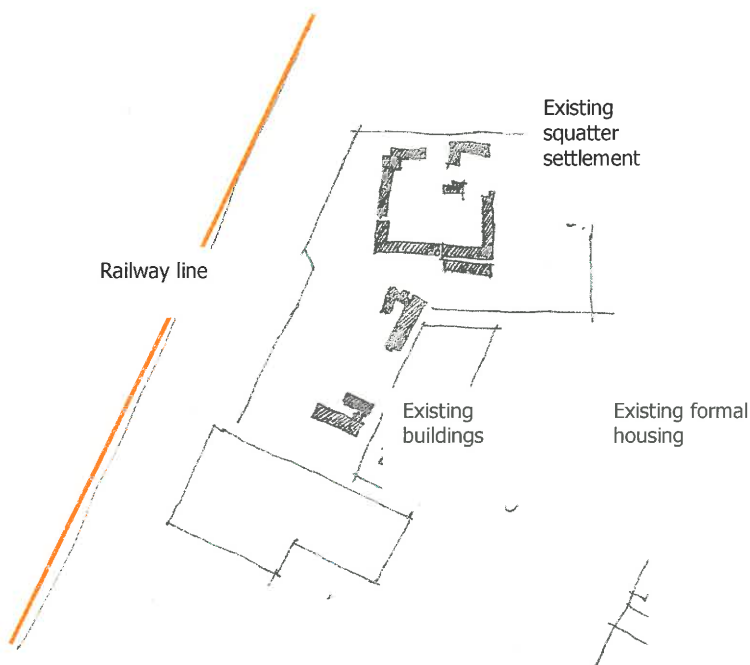
however becomes very important in a development like this which has a high degree of uniformity.

### **8C. Klipspruit Mixed Income Housing Development**

This project, a hostel and squatter settlement redevelopment, has a unique dynamic to it as it comprises a hostel upgrade and densification through additional buildings, which is a complex design problem in itself, but it is also located adjacent to a squatter settlement where the site is to be developed as RDP housing which adds an interesting design dimension to the project.

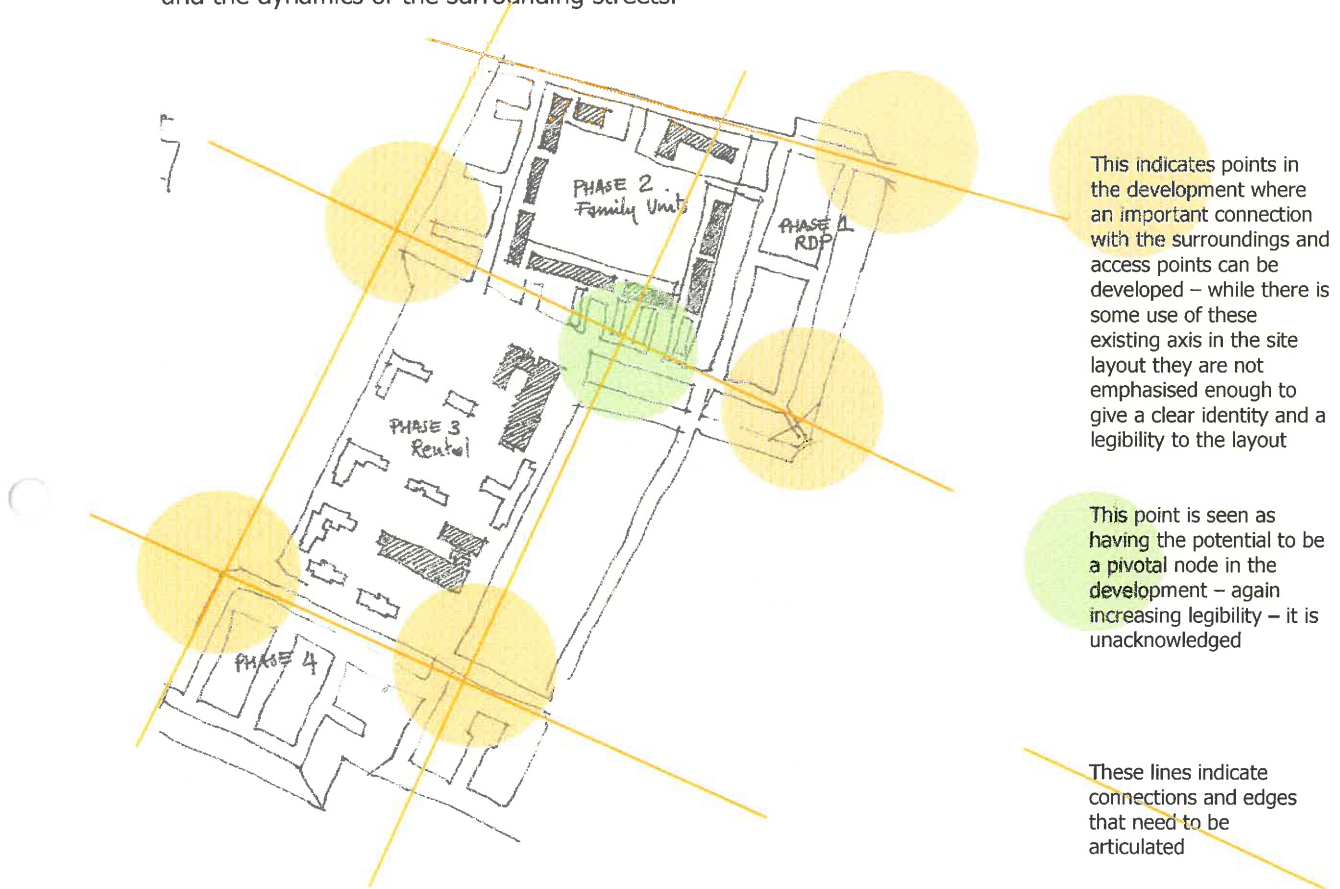
The documentation provided is aerial photos, a geotechnical investigation of hostel and new settlement, a site plan in final phase of development (phases 1-4) as well as phases one to four drawings (plans, sections and elevations).

Existing formal structures are clearly indicated (shaded below), yet the squatter area does not seem to have been documented in any way.



There is a railway line and station on the west of the site, a squatter settlement on the north east corner and formal settlements on the other sides. How the design relates to these, through the development of the edges, is crucial. However looking at the proposed layout below, it does not seem that the edges of the development are being treated in a way that enhances connections

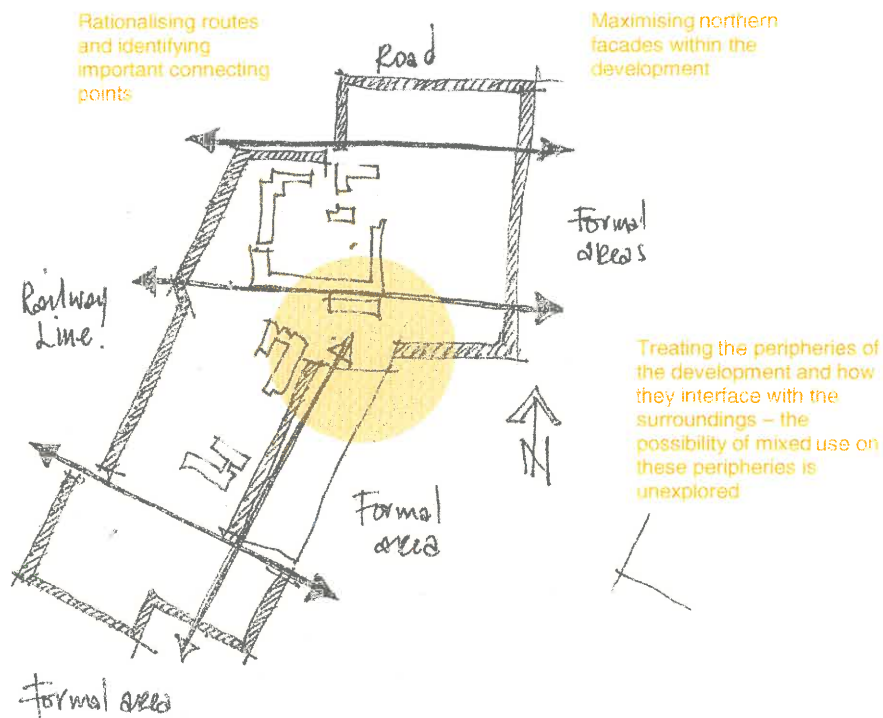
with the surroundings or in a way that would encourage a variety of responses to street edge and the dynamics of the surrounding streets.



The positioning of the site in the city structure means that it is rather peripheral to both the city and the township. Thus some attention needs to be given to the possibility of mix-use and live/work units – thus attempting to create the potential for some job opportunities within the settlement. A higher density in itself would create the need for small enterprises to develop and designing the overall site plan with a consideration for mixed activities in the streets may revitalise those settings and make them more viable for other activities.

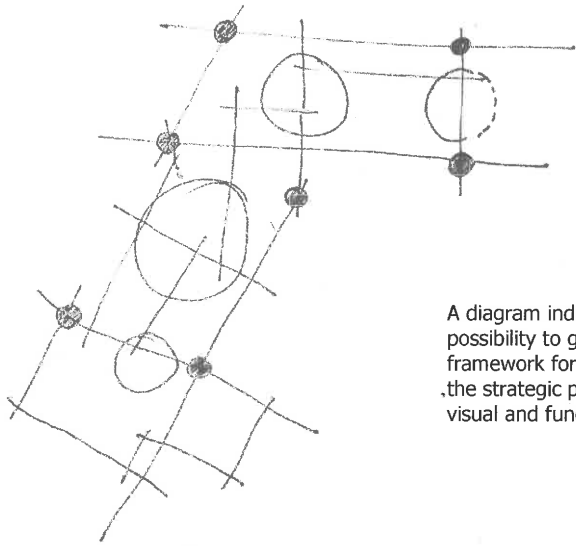
The proposed mix of tenure and housing types is commendable. The site has been sub-divided into smaller open spaces and cul-de-sacs which may achieve a sense of neighbourliness and ownership among smaller groups of residents.





A clearer strategy for open space articulation needed to have been studied at the level of the site plan. The edge of the development – where it interfaces with the surroundings needs special design attention. There are also existing routes which need to be retained in the final design – some have been, while others do not get sufficient emphasis in the site plan – these routes would then relate to a network of open spaces and visual/functional nodes. These aspects are demonstrated in the diagrammatic sketches. Thinking of the project at this scale is important in generating strong urban cohesion, continuity and unity with the surroundings, while achieving a sense of a well functioning neighbourhood.

A potential pivotal node is indicated in the sketch above that is neglected in the design. If this is developed a clearer strategy for spatial design can be developed as indicated in the rough sketch below. It is also noted that the densities could be higher and may ultimately generate a more vibrant and dynamic context while still maintaining a degree of privacy and seclusion for the family units especially.



A diagram indicating the possibility to generate a legible framework for circulation and the strategic positioning of visual and functional nodes

Generally, the landscape aspects are not clearly addressed and spatially, the open areas do not have a clear sense of identity, proportion, scale, image, enclosure and transition zones are indistinguishable. Areas for seating or socialising, playing also need to be strategically positioned and orientation also plays a role in terms of creating shaded areas for use in the afternoons for example when the western sun is very harsh. The lack of landscaping compromises the legibility of circulation routes, especially for pedestrians.

Orientation is not optimal. Much of the development is faces (roughly) west or east. The former in particular can be extremely uncomfortable. Phases 1 and 4 especially would not work well as they units are connected (row houses) in approximately the north-south direction. While they are staggered in places they are still not ideally oriented to capture northern sun in winter.

The unit plans for Phase 1 are not positioned on the site so the optimum use of the site cannot be addressed, yet from the site plan of the whole development it appears that the positioning of the unit is conventional in that it does not attempt to create a bigger private space for the family, nor does it connect in a better way with the street. While the site plan indicates row housing it is difficult to see how the various plan options work within that typology. One would like to assess it also in terms of the location of services for example.

How this proposal relates to what is already on the ground in the squatter area is also unclear. Would the existing structures be completely demolished? Would some elements be retained? Has this area been properly documented?

Unit design for Phase 1 units is not optimised. A built in cupboard of 450mm depth could be provided in the space at the back of the bath facing the entrance in the Plan 2 option. Window orientation seems random with no thought of orientation. The pre-cast WC option is badly incorporated offering no more value or space as all additional space is taken up by circulation.

Phase 2, Block N, has many awkwardly proportioned bedrooms and living spaces (long and narrow). It is suggested that even if the cupboards are not built in initially, space be clearly demarcated for future storage. Many units have access on both sides of the blocks. Would a more controlled solution been better in terms of achieving a sense of ownership and a clear progression from public, semi-private/communal to private? Or could one side of the building be treated more as a service area with something comparable to a back yard, washing lines, garbage bins etc. The design must be in such a way as not to create a bleak and neglected zone within the development.

Vertical service reticulation needs to begin more attention with shafts provided where vertical water and sewerage reticulation coincides with walkways. This will free up the main façade of the building for living/bedroom areas and in cases allow for existing door opening to be re-used as front doors to units. Planning can also eliminate wasteful piping. In block P for instance mirroring units will allow for bathrooms to abut minimising piping lengths.

Phase 3 Blocks A, B and C position the service areas (bathrooms) on the northern facades. This is unfortunate. Special façade treatment to address the harsh western sun is not indicated on Blocks C, D or E.

Block G is two attached units that are in reality not connected (no access between them). Treating them as one linked building may have resolved some of the design problems apparent in this design. Again orientation is problematic and where there is a northern exposed façade it is cluttered with the service areas.

Phase 3 Blocks I and J are extremely problematic. While it is appreciated that the existing block designs are very difficult to work with, the proposed design does not improve on the conditions and seems to have been dealt with in such a way as to just have the maximum amount of units:

the long unventilated passage with no natural light, the washing lines in a place that could have the potential to be a communal area, the exact same treatment of both blocks thought they are differently oriented.

Phase 4 indicates row houses while the plans are for semi-detached houses. The design intentions are unclear.

By specifying SABS standards industry standard materials will be provided. Thought should be given to the sources of materials and their long term sustainability, transport costs and embodied energy. Not much information was available regarding specifications. The use of cement block walls for the Phase 1 development (RDP house) is cost effective but might have negative social connotations if not plastered. Specifications should take energy savings measures such as insulation to roofs and geysers into account. Dual flush toilets and rainwater harvesting should be non-negotiable throughout. As a retrofit project the structural system is simple and efficient. The drawings vary in level of competency.

Phase 2 is problematic as many of the bedrooms are located on pedestrian routes or passages and privacy (visual) is compromised. How these may be treated for privacy is not evident. Landscaping, planting and clearly demarcated pedestrian zones would perhaps provide some solutions.

It is not clear from the designs how personalisation or participation could be achieved or if it would be encouraged. The extension of the RDP units is not demonstrated and the potential of the design for adaptation is not indicated. Disabled access is also not demonstrated.

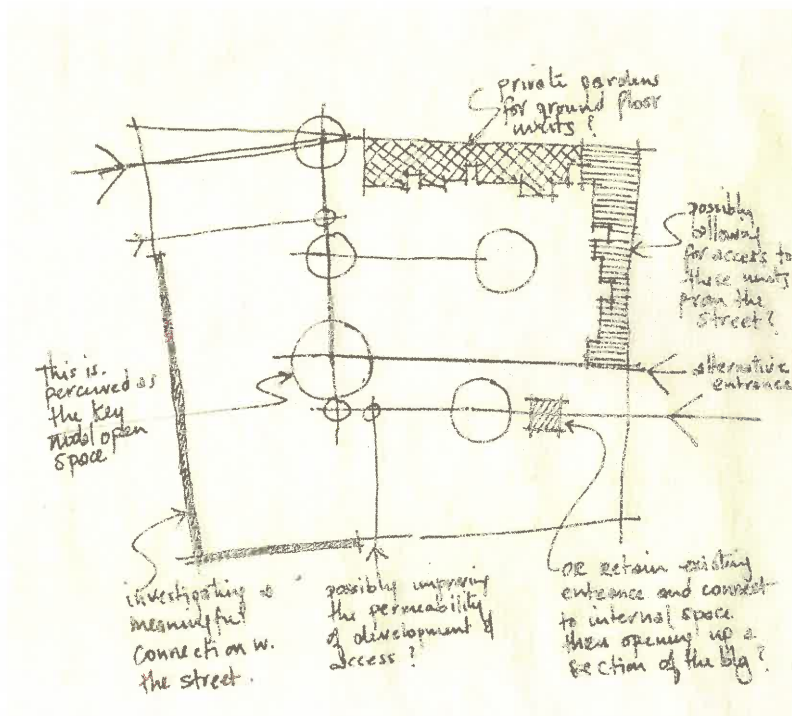
It is not clear from the design that any thought has been given to issues of environmental sustainability at all. No thought has been given to orientation, solar access/shading. Many of the units throughout the development would be incredibly uncomfortable leading to high user dissatisfaction. Grey water recycling should definitely be investigated. Rain water harvesting should not be negotiable but planned as an integral part of the functioning of services on site.

## 8D. Redevelopment of Selby Hostel to Social Housing Units

This is also a hostel redevelopment. Little documentation is provided: a business plan (with a section on design guidelines), photographs of the existing structures and a site plan of the proposed development.

The site seems to be reasonably accessible. The nature of the immediate surroundings appears to be industrial. Service amenities for housing are unclear. Would the development need some facilities such as a crèche to be provided? Also the relation of the residential site to the surroundings and the degree of integration with the surroundings is undefined. Would the site need to be made more permeable or more secluded for example?

The site coverage is already quite large and spaces within the development are well demarcated through the positioning of the buildings. This has been used well in the proposed site plan but can be developed further to allow for a degree of permeability (if deemed desirable), connection with the surroundings and the creation of a meaningful street edge. The accessibility into the site and car movement throughout needs to be better rationalised. One access point and the turning circles for the cars may become too busy and confusing.



Some suggestions are made on the sketch above for how a more layered spatial development may be achieved with more variety in terms of the balance between private and communal space, as well as alternative relations with the street. Private gardens for the ground floor units can be provided on the northern side for example, and access to some units from the streets may be included on the east and west sides, also allowing for some space for private gardens. The circles indicate a possible progression of spaces and nodes that may achieve a more clear pattern of circulation on the site.

From the photographs of the façade it seems that sections of the façade are non structural and can thus be adapted to a great degree to achieve a better interface with the surrounding communal space and generate more interaction between indoor and out door spaces/activities.

Where facades are stepped balconies can be incorporated. Positioning sinks in kitchens close to bathrooms will allow for shorter pipe runs. Window placements are not thought through in terms of solar orientation. Stepping the facades requires more flashing and does not substantially make a positive contribution to the variety of spaces or appearance of the development. More thought need to be given to sewerage reticulation and the effect hits will have on the appearance of the buildings.

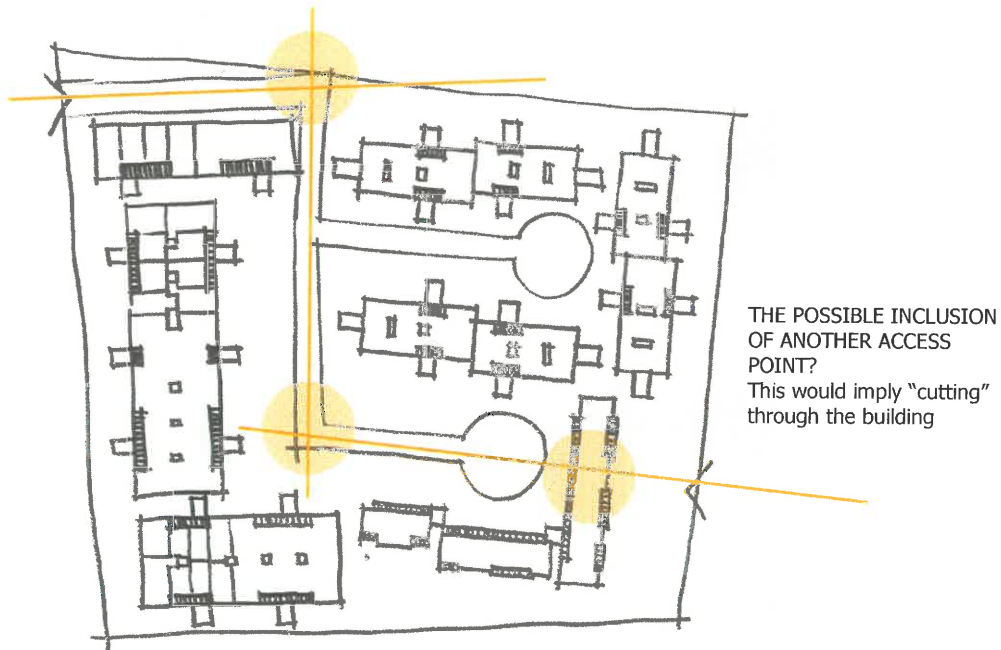
Materials are industry standard. Careful thought needs to be given to finishes especially in hard wearing areas such as refuse yards. Using cottage pane steel window farms will allow for more security and cheaper glass replacement costs.

No mention of insulation is made anywhere. Exposed timber such as front doors should be painted to ensure longer life cycles. Tiles in common use areas must be non-slip or a material other than ceramic tiles needs to be specified. Water saving devices such as dual flush toilets must be utilised. Insulation to roof voids and geysers should be provided for.

The number of staircases in the development appears to be excessive – see sketch below. It is not clear from the one plan whether all of these already exist or if some of them are proposed. It is evident from the sketches that the vertical and horizontal circulation spaces as well as duct space are a significant proportion of the floor space. Perhaps this can be better rationalised?

Access for the disabled is not demonstrated and would need more drawing submissions than what is currently available. Safety and security issues such as gradual progression from private to

public space for increased defensibility, visible entrances, well located access points and night lighting are not clearly indicated and the information provided is too little to allow for a through assessment. It is suggested, as in the other projects, that smaller glazed 'cottage pane' windows will allow for more security to each unit. Burglar proofing is an option to be investigated.



Personalisation and participation are not addressed explicitly in the submitted documents. The creation of variety and a unique identity to the communal spaces within the development is also compromised by the single vehicular access point and the similar treatment of the cul-de-sacs.

It is not clear from the design that any thought has been given to issues of environmental sustainability at all. No thought has been given to orientation, solar access/shading. Many of the units throughout the development would be incredibly uncomfortable leading to high user dissatisfaction.

Grey water recycling should definitely be investigated. Rain water harvesting should not be negotiable but planned as an integral part of the functioning of services on site.

## 9. RESULTS

The above critiques/appraisals need to be read with the following in mind:

- The assessments are ONLY based on provided information which at times was incomplete or difficult to read (small scale, poor quality of photocopies, etc.)
- The proposed amendments or changes to the designs are made with the understanding that these changes would need to be reconciled with existing conditions that we may not be completely aware of (from the available documentation) and with issues such as cost implications
- Design is a complex process with many aspects having to be taken into consideration at the same time – the proposals and sketches should be taken as guideline ONLY and would have to be further investigated in a design process that is informed by as much site and project information as possible – while also allowing for consultation and participatory processes

Having said that, it has been possible with the submitted documentation to make a fair assessment and to rate various aspects of the design in a format that is more readable and accessible in the hope that these pointers would direct the development of these designs and become a basis for the SHI to interact with its professional teams.

We see this document as a discussion document and if any further input is required in these designs that would have to be a separate process continuing from this one where these concepts put forward are debated, developed and tested.

This process and following activities will hopefully achieve the capacity development required in terms of the design aspects of the project. We hope that the recommendations will have more impact as they are based on specific suggestions for specific projects and are not vague theoretical assumptions. This may make the document easily accessible to JOSHCO and allow for a more focussed approach in the progress of the various projects to implementation and beyond.

Please refer to the tables attached at the back of this document which provide a summary of the information contained in section 8 above. A few guidelines are provided below for a comprehensive approach to hostel redevelopments.



## **10. PROPOSALS WITH A FOCUS ON HOSTEL REDEVELOPMENT**

Regarding building conversions, including hostels, the following aspects are important for consideration:

- Existing buildings can be transformed through the articulation of sections, facades, roof forms, shape and placing of openings.
- Dismantled components need to be re-used as far as possible.
- A hierarchy of open spaces and streets need to be achieved – especially where the regimented and controlled character of hostels needs to be challenged and a more interesting and visually exciting environment can be provided. This hierarchy needs to be integrated with strategically placed nodes, again orienting one within the area.
- Hostel boundaries need to be dissolved into the surrounding areas, where possible and depending on the surrounding context, and full integration attempted. This may pose management problems that need to be tackled.
- Spending large amounts of money in cleaning up, for example, is not a good option if it is not integrated with a structured re-design of the way that housing blocks relate to the open spaces and to the streets – remember that many problems can be solved through good SPATIAL DESIGN and ARTICULATION.

Hostels are unique and complex in their designs and a separate document with structured guidelines for hostel redevelopment is suggested for development at a later date.

## APPENDIX 1 CHECKLIST FOR USE IN 4 JOSHCO PROJECTS

1. Relation to urban context
  - a. Location within city, accessibility of public transport nodes, commercial, medical and service amenities
  - b. Immediate surroundings and the planning and design response
  
2. Site planning and layout
  - a. Project scale: The larger the scale of the project the greater the need for design and planning variety to avoid residents feeling the alienation of being part of a large housing project. More smaller blocks or clusters are desired over fewer larger ones
  - b. Building footprint and resulting spatial fabric
    - i. A hierarchy of spaces from private to public should be established for legibility, safety, development community identity, and individual sense of ownership
    - ii. Building coverage and densities
  - c. Architectural design (aesthetics)
    - i. Of a character/image appropriate to the developments surroundings
    - ii. Variety in the façade and block designs for visual identity, richness and a lowering of the perceived density
    - iii. Uniformity to maintain a sense of community with distinct identity
  - d. Architectural design (technical)
    - i. Structural
    - ii. Competence of architectural drawings
  - e. Stormwater control
  
3. Open spaces (landscape design)
  - a. Overall design for a positive atmosphere (major elements are surface treatment and tree planting)
  - b. Variety of public and semi-private spaces for different functions (children's play areas, informal sports, seating areas)
  - c. Using trees for shading and visual control such as blocking unwanted views

4. Unit design
  - a. Layout
  - b. Materials
  - c. Specifications
  
5. Circulation
  - a. Pedestrian and vehicular circulation as separate as possible
  - b. Legibility of pedestrian circulation
  
6. Safety and security
  - a. Gradual progression from private to public space for increased defensibility
  - b. Entrances as visible as possible
  - c. Semi-private and public spaces visible from interior spaces
  - d. Access points to the site well located
  - e. Night lighting
  
7. Personalisation
  - a. As many private entrances as possible (with possibility of personalization of a small entrance space) and avoiding many entrances on long corridors
  - b. Ground floor units with a small private garden separated with a low wall from the semi-private area adjacent
  - c. Open building for interior and exterior personalization
    - i. Accessibility for disabled
  
8. Sustainability (energy and resource efficiency)
  - a. Parking
    - i. Permeability of surface material
    - ii. Shade provision for temperature control
  - b. Building efficiency
    - i. Cooling and heating: Orientation, roof overhangs, insulation, ventilation
  - c. Grey water recycling
  
9. Town planning requirements
  - a. Zoning and approvals
  - b. Geotechnical survey

10. Financial aspects
  - a. Funding
  - b. Affordability
  - c. Demand
  - d. Market research
  
11. Community consultation and participation

## APPENDIX 2 TABLE SUMMARY OF PERFORMANCE EVALUATION

### 1. Relation to urban context

#### Performance criteria:

How is the development located within the city, with specific reference to the accessibility of public transport and commercial, medical, service facilities and amenities? To what extent have the immediate surrounding area's qualities and characteristics been taken into account?

	Performance evaluation	Rating / score
8A. - Lombardy East Housing Project	<p>The development is somewhat isolated in that it is within a suburban area. Access to public transport, amenities and facilities is therefore a potential problem. A number of amenities are however proposed for inclusion in the development.</p> <p>The project documentation states clear intentions to address the qualities and characteristics of the surrounding area. Care must be taken to ensure that these intentions are met through the planning and construction phases.</p>	5/10
8B. - Roodepoort Inner City Housing Project	<p>The development is well situated in the Roodepoort CBD for easy access to public transport and a variety of facilities.</p> <p>The documentation provided does not reveal any specific response to the immediate surroundings which could have a significant effect on the development.</p>	6/10
8C. - Klipspruit Mixed Income Housing Development	<p>The project is in a township setting but seems to be well located next to a railway line, a police station, existing formal housing and a squatter settlement (which could indicate that there is a need for housing in that particular location). Yet a good relationship with these surroundings is not attained through the design layout.</p>	3/10
8D. - Re-development of Selby Hostel to Social Housing Units	<p>The project is in a densely built (apparently) industrial area and is well located near to main roads. Again it turns its back on the street and is not well integrated into the surroundings (it is unclear what kind of relationship with the surroundings would be ideal in this case).</p>	5/10
<b>Project</b>		

## 2. Site planning and layout

### Performance criteria:

Does the development create a hierarchy of public to private spaces through the careful planning of the building footprint?

Is the architectural character appropriate to the surroundings and how does it balance uniformity (for the development of community identity) and uniqueness (for a sense of personal identification with the project)?

	<b>Performance evaluation</b>	<b>Rating / score</b>
8A. - Lombardy East Housing Project	The development of a hierarchy of spaces is reasonably successful. An architectural identity is well developed, creating a desirable uniqueness to the place. This will reduce the need for personalisation. From the 3-d artist impressions it does seem possible for the ground floor residents to personalise the exterior space, in the form of a private garden.	7/10
8B. - Roodepoort Inner City Housing Project	As a result of using the same building footprint repeated across the sites, a hierarchy of spaces does not develop. The architectural visual character is anonymous, and with almost no variation across the development.	3/10
8C. - Klipspruit Mixed Income Housing Development	A variety of spaces is created which is a positive aspect of the design. They are however not well related to existing networks and the squatter settlement does not seem to have been properly researched. There is too much repetition in terms of building character.	5/10
8D. - Re-development of Selby Hostel to Social Housing Units	The spaces are repetitive of no clear character – the buildings also do not seem to have a clear identity for the few documents available.	4/10
<b>Project</b>		

### 3. Open spaces (landscape design)

#### Performance criteria:

Have a variety of exterior spaces been identified for different uses and to what degree has the design of these spaces been addressed? What potential exists for improving the open space design considering the density and coverage of the layout?

	<b>Performance evaluation</b>	<b>Rating / score</b>
8A. - Lombardy East Housing Project	It is commendable that a series of exterior spaces have been identified for a variety of uses. No detail design information is however available. The interior courtyards of the blocks have however all been allocated to parking. With adjustments this can easily be improved, as there is ample open space available.	6/10
8B. - Roodepoort Inner City Housing Project	Except for certain internal courtyards which seem to be earmarked for children's play areas, no indication is given regarding the intended use and design of the open spaces. The open spaces available for use in the current layout are very poorly defined and it will be difficult to incorporate them into a sensible system of open spaces. Only marginal improvements can be made without changing the building footprint considerably.	2/10
8C. - Klipspruit Mixed Income Housing Development	This project can be significantly densified. There is no clear differentiation between the spaces/activities. There is much potential for developing the proposed framework and a clearer strategy is need for landscape aspects.	5/10
8D. - Re-development of Selby Hostel to Social Housing Units	Repetitive. No good layering of the open spaces. Apparently quite dense. The focus is on the two central spaces (which also act as car turning spaces) and the peripheries of the development seem to be somewhat neglected.	4/10

Project

#### 4. Unit design

##### Performance criteria:

Are the units planned and designed to be climatically comfortable, have a positive character, have sensible positioning of entrances for safety, and to what degree are they able to be personalised?

<b>Performance evaluation</b>		<b>Rating / score</b>
8A. - Lombardy East Housing Project	No information is available regarding the unit designs.	N/A
8B. - Roodepoort Inner City Housing Project	The northern and southern wings of the H-blocks (between Nefdt, Joubert and Kerk Streets) have been mirrored resulting in undesirable southern orientation. This needs to be addressed (possible solution proposed in the detailed discussion of the project). There is no indication of an attempt at allowing the residents to personalise the units.	4/10
8C. - Klipspruit Mixed Income Housing Development	Extreme problems with some units. They are generally poorly designed with uncomfortable proportions and no storage spaces allowed for. Many of them are badly oriented and will be very uncomfortable to live in.	2/10
8D. - Re-development of Selby Hostel to Social Housing Units	Also problems regarding orientation and lack of ventilation.	4/10
<b>Project</b>		



## 5. Circulation

### Performance criteria:

Are the vehicular and pedestrian circulation routes in conflict or are they separated? Is the pedestrian circulation legible and safe? How many points of access are provided and are they sensibly placed?

	<b>Performance evaluation</b>	<b>Rating / score</b>
8A. - Lombardy East Housing Project	The vehicular and pedestrian circulation systems are mixed resulting in pedestrians having to cross roads whilst moving around the site. Roads dominate the site. Rearrangement of the blocks could easily improve the situation (see proposal in detailed project discussion). 3 access points are provided.	4/10
8B. - Roodepoort Inner City Housing Project	The vehicular and pedestrian circulation systems are not in conflict. Undesirably large parking spaces are however created. The pedestrian circulation is in most cases direct, but will not necessarily be safe as the routes move through poorly defined "lost spaces", which will be poorly visually monitored.	3/10
8C. - Klipspruit Mixed Income Housing Development	No clear strategy for creating a sense of orientation and legibility and no separation between vehicular and pedestrian routes although the space does allow for that to happen.	5/10
8D. - Re-development of Selby Hostel to Social Housing Units	Vehicular movement rather confusing. There is one entrance and two central spaces making the rest of the space ("behind" the buildings) prone to becoming neglected zones.	4/10

**Project**

## 6. Safety and security

### Performance criteria:

Is there a gradual progression of public to private space for maximum defensibility? Are the exterior spaces visible from the interior of the units? Are the access points well located, controlled and is there provision made for lighting?

	Performance evaluation	Rating / score
8A. - Lombardy East Housing Project	There is a good grading of open space from the public squares at the entrance points, to the semi-public landscaped park, to the semi-private internal court-yards and ultimately to the private gardens on ground floor. The document states that access points will be controlled.	8/10
8B. - Roodepoort Inner City Housing Project	A progression of spaces is either not at all developed or is too abrupt for meaningful defensibility to result. Safety may then be a problem. The Nefdt, Joubert and Kerk Street block has a controlled entrance, but the other blocks not, unless just not indicated.	3/10
8C. - Klipspruit Mixed Income Housing Development	Neglected zones within the development (that do not have clear functions and do not accommodate for movement routes) may become less safe than others. The cul-de-sacs do allow for smaller groupings which is positive. No clear progression and ownership implied.	5/10
8D. - Re-development of Selby Hostel to Social Housing Units	Due to the smaller scale of this project, it seems to have more potential for passive surveillance. The cul-de-sacs also allow for monitoring the spaces more. But again the spaces on the peripheries may become neglected zones.	6/10

Project

## 7. Personalisation

### Performance criteria:

To what degree does the development allow / encourage residents to personalise their space for an increased sense of specific ownership?

	<b>Performance evaluation</b>	<b>Rating / score</b>
8A. - Lombardy East Housing Project	The project has a well-developed identity and variety in the architectural design. This should reduce the need for personalisation. There are also private gardens for ground floor residents. The units should however still be designed for some degree of personalisation.	6/10
8B. - Roodepoort Inner City Housing Project	The development is very monotonous in character and will result in the residents expressing a strong need for personalisation. The design does not indicate how the expression of this need is intended to be accommodated.	2/10
8C. - Klipspruit Mixed Income Housing Development	This aspect is not explicitly mentioned or demonstrated. The RDP housing in particular may allow for future adaptations and extensions but it is not indicated as having the potential to do that. The rental units also seem to be very "fixed".	2/10
8D. - Re-development of Selby Hostel to Social Housing Units	This aspect is not explicitly mentioned or demonstrated. Personalisation would be extremely important in a development like this as it might end up becoming quite an alienating development with little sense of belonging or ownership (due to the fact that it is quite dense and repetitive).	2/10
<b>Project</b>		

## 8. Sustainability (energy and resource efficiency)

### Performance criteria:

To what degree has there been an attempt at designing and planning for sustainability?

	Performance evaluation	Rating / score
8A. - Lombardy East Housing Project	Due to the rather steep nature of the site, there is a necessity for specific stormwater control. This presents the opportunity for sustainable management of this water which is not addressed. Building orientation for temperature control can be improved. Shading structures are however provided for the northern sun. The unit specifications do not specifically state how low energy usage and resource efficiency have influenced design and planning decisions.	4/10
8B. - Roodepoort Inner City Housing Project	Building orientation for temperature control is not addressed. A large development like this will no doubt put pressure on the municipal services; however, the unit specifications do not specifically state how low energy usage and resource efficiency have influenced design and planning decisions.	3/10
8C. - Klipspruit Mixed Income Housing Development	A neglected aspect of the design. Some things such as rainwater collection or optimum orientation are not expensive or difficult to implement yet they do not seem to have been considered at all.	2/10
8D. - Re-development of Selby Hostel to Social Housing Units	A neglected aspect of the design. Some things such as rainwater collection or optimum orientation are not expensive or difficult to implement yet they do not seem to have been considered at all.	2/10

Project

## 9. Town planning requirements

### Performance criteria:

To what degree have the requirements of council been addressed?

		Performance evaluation	Rating / score
Project	8A. - Lombardy East Housing Project	From the documentation provided, the application for change in land use was still to be submitted.	
	8B. - Roodepoort Inner City Housing Project	From the documentation provided the zoning amendments have been approved and a geotechnical survey has been completed.	
	8C. - Klipspruit Mixed Income Housing Development	There is a complexity to the project in that 5 land portions make up the area. It is not clear if this is resolved. Rezoning of a section is required. Mineral rights – consent has been obtained from right holder.	
	8D. – Re-development of Selby Hostel to Social Housing Units	Re-zoning required allowing for higher densities. An EIA is needed and a EMP. Traffic impact has already been carried out – not clear how or what the outcomes are. Land surveys are still not done. Geotechnical report has been done but not available.	

## 10. Financial aspects

### Performance criteria:

How have the funding, affordability, demand and market research aspects been addressed?

Performance evaluation		Rating / score
8A. - Lombardy East Housing Project	Four sources were identified for the funding but the current funding status is not known. The demand has been clearly stated and there is no expectation of a shortfall in occupancy.	
8B. - Roodepoort Inner City Housing Project	Sources were identified for the funding but the current funding status is not known. The documentation confidently states that considerable demand exists for people who want to live and work in the CBD.	
8C. - Klipspruit Mixed Income Housing Development	Combination of subsidy funding. Developer linked stakeholders. The project mostly targets the hostel dwellers and the informal settlement adjacent to it. It does not appear that there was a formal market survey undertaken but the illegal occupations seems to have been used as an indicator of need.	
8D. - Re-development of Selby Hostel to Social Housing Units	In the business plan it is indicated that funding would be available from the City of Joburg, the Gauteng Dept. of Housing, NHFC and the Gauteng Partnership Fund. It is not clear if these funds have been obtained/approved. Viability/Feasibility is mentioned but not clear how it was carried out.	

Project

## 11. Community consultation and participation

### Performance criteria:

	Performance evaluation	Rating / score
8A. - Lombardy East Housing Project	The documentation states that community consultation will take place but it is not known whether this has been the case.	
8B. - Roodepoort Inner City Housing Project	It is stated that community consultation will take place through the formation of a development forum / residents committee on completion of the project. It is not known whether community consultation will / has taken place during the project development.	
8C. - Klipspruit Mixed Income Housing Development	Illegal occupation implies that there are also people already in the development that could be involved. It is indicated that a transparent process is to be encouraged.	
8D. - Re-development of Selby Hostel to Social Housing Units	Invaded derelict buildings would mean that there are many residents already there who could be consulted and who could participate in the process. There is a plan to involve them but mostly to inform them of what is happening – it is not clear if they will have a contribution in terms of decision making regarding the design in particular.	
<b>Project</b>		