

Memorandum



Ekurhuleni
METROPOLITAN MUNICIPALITY

To: **Mafmath Consulting**
45 Wilge Street
Florapark
Polokwane
0699

Human Settlements Department
Head Office

29 Lakeview Crescent
Kleinfontein Lake Office Park
Benoni

P.O. Box 25623
Benoni North
1527

Date: 10 March 2014

Tel: +27 011 999 4013
Fax: +27 011 999 7518/7175

Subject: ERF 808 GERMISTON TOWNSHIP (FIRE STATION PRECINCT)

The above matter refers.

The Human Settlement Department hereby confirms that Erf 808 Germiston Township is one of the precincts in the Germiston Urban Renewal Project.

This precinct aims to develop 2 components of the node, that of mixed housing and that of public open space with cultural arts and heritage activities. The approach and design rational for this precinct is to provide a large component of a multitude of projects such as public space, retail, social facilities, road infrastructure upgrading, landscaping, public transport routes, etc. The business plan is attached hereto as Annexure "A".

A rezoning application was thus submitted on 5th October 2011 and one of the requirements on the application was that a Heritage Impact Assessment for the proposed development be submitted prior to approval.

Mafmath Consulting was therefore appointed by Ekurhuleni Metropolitan Municipality to prepare the Heritage Impact Assessment in order to comply with the rezoning application requirements.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Emily Sibanda', written over a horizontal line.

EMILY SIBANDA
ASSISTANT DEVELOPMENT PLANNER: STRATEGIC SUPPORT AND PLANNING
For FIKILE NDLOVU
DIRECTOR: STRATEGIC SUPPORT AND PLANNING

ANNEXURE “A”

1.4 Business Plan

a. Introduction

The aim of the Fire Station Precinct is to develop this area as the southern anchor development for the Meyer Street Axis, running through the centre of the Germiston core area. This Precinct is focused around the development of the Fire Station Square, to the southernmost tip of the Cultural Axis ('High Street'- Meyer Street). This Precinct aims to develop 2 components of the node, that of mixed housing and that of public open space (green space) with cultural (open air) arts, culture and heritage activities. It thereby creates a central cultural axis extending from this Precinct towards the Cultural Precinct, on the northern point this central axis. Even though the Mixed Housing and Arts, Culture and Heritage character is the main theme of this Precinct, it is a composite of a multitude of projects such as public space, retail, social facilities, road infrastructure upgrading and landscaping, public transport routes and pedestrianization, etc.

The approach & design rational for this precinct (and business plan) is to provide a large component of medium density housing that would provide for an alternative housing typology within the Germiston urban environment. The main aim of this housing is to provide social housing as catalyst for urban regeneration. In addition to this good quality public space environments are also to be provided, including parks, public spaces and streets. The promote the active use of this precinct for longer periods of time, it is suggested that the supportive facilities of a Fire Station, Primary School, Secondary School and retail facilities are provided.

b. Project Packaging

It is recommended in this business plan that an approach of 'Project Packaging' is followed towards successful implementation of the Precinct. It is suggested here that the total Precinct (Project Package) as delineated in the image to the right, be implemented in its totality by one developer. This will allow the Precinct to be developed in totality and function as a whole. This will allow the EMM to also have a completed piece of urban environment including uses, new buildings, public spaces and streets; which can be managed and maintained.

Two Catalyst projects have been identified to kick-start this Precinct development. These Catalytic projects should be the first projects to be implemented that will establish the framework for development and are located on land owned by the EMM



Figure 1-20 Fire Station Precinct.

c. Quality and Design Specifications

Prior to the issuing of this Precinct tender, or as part of the tender process for this Precinct (Project Package) it is proposed that a Quality & Design Specification Manual be developed. This Quality & Design Manual should indicate the type and quality of public space elements such as paving, lighting, seating, bollards, advertising, surface treatments, glazing, building façade material and other street furniture quality and type. This could be done as a separate tender or competition that could be approved by the EMM as standard for public space development within Germiston Urban Core area. The design guidelines in this document provides some illustrations of these street furniture (streetscaping elements), material and façade details, however a separate process should be followed to approve a Quality & Design standard for the EMM in relation to Germiston.

d. Land Assembly

As a prerequisite to all the Precincts developments, it is proposed that the first action should be the assembly of land within the boundaries of the Precinct. The image to the right illustrates the private land that should be acquired by the EMM to provide for a complete Precinct development. In addition to this the land which is owned by other State Bodies, should also be transferred to the EMM. The land ownership (Zoning & Size) of the total Precinct is indicated in Annexure E. The land that should be acquired by the EMM is as follows:

ERF NO	PRECINCT	REGION	OWNERSHIP	SIZE (SQM)	ZONING
221	Fire Station	South Germiston	Break Even 68 Pty Ltd	1030	Bus 1
222	Fire Station	South Germiston	Break Even 68 Pty Ltd	970	Bus 1
1/278	Fire Station	South Germiston	Pentadent Prop (Pty) Ltd	4578	Institutional
10/278	Fire Station	South Germiston	Methodist Church Of Sa	905	Institutional
3/809	Fire Station	South Germiston	Catholic Archdiocese Die Ou	8338	Municipal
4/278	Fire Station	South Germiston	Apostolie Kerk Van Af	3033	Institutional
7/278	Fire Station	South Germiston	Nederduits Hervormde Kerk Germ	5010	Public Open Space/Institutional

The following sections of this Business plan will deal with the individual Projects identified within the Precinct (Project package).

Land Ownership

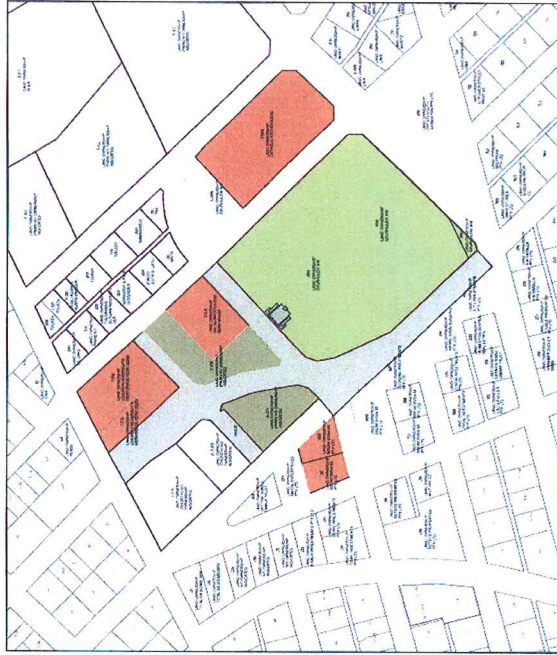


Figure 1-21 Land Ownership.

e. Housing Strategy

As indicated in the Housing Strategy Document, it is suggested that the following composition of housing unit sizes, typologies and affordability be used to inform the proposed housing typology development. Note should however be taken here that this Precinct aims to provide the maximum (approximately 370 units) number of social housing units. The informants of housing guidelines include:

Core Target Market

Singles-working close by: 30-40% of total population within the larger development zone
Couples (married-working) & Parent(s) with children: 60-70% of total population within the larger development zone

Unit Configuration

Bachelors/1 bedroom, 1 bathroom units: 30-40% (25-45m²) of total number of units
2 bedroom, 1 bathroom units: 40-50% (45-65m²) of total number of units
3 bedroom, 1 bathroom units: 20-30% (65-85m²) of total number of units

Proposed Monthly Rental

Bachelors/1 bedroom, 1 bathroom units: R1500-R3500 per unit
2 bedroom, 1 bathroom unit: R3500-R5000 per unit
3 bedroom, 1 bathroom units: R5000-R7000 per unit

f. Public Transportation: BRT Development

The proposed new BRT system, the cycling routes and pedestrian movement systems have an influence on the proposed Precinct development. Note should be taken of these modes of transport and the provision of facilities for these transport types. Within this business plan provision has been made for the cycle routes and the pedestrian movement routes; however the provision of the BRT system has not been included as a costing item. This 2 way BRT is proposed to be located along Meyer Street (that merges with President Street in the south) (total of 424 meters of BRT route and station/s). The costing of the BRT route & facility provision has not been included as part of this business plan, as the implementation of the BRT System/ Routes is based on the provision of a total BRT/ Transportation system, which spans across a number of precincts within the Germiston Inner City area; and therefore should be costed in totality by the EMM and implemented as integrating tool between the precincts.

9. Precinct/ Project Package

The map to the right illustrates the Fire Station Precinct, including the Site/ Precinct boundary, the Catalytic Projects, the various Projects within the Total Project Packages (Precinct), the Public Space Upgrade and the Associated Buildings. The Fire Station Precinct contains 6 Projects and 2 Associated Projects. These can be detailed as follows:

Project 1 (Catalytic Project): Fire Station Housing (Phase 1). This project aims to function as one of the catalyst projects to kick-start the development of the housing & social housing component of the precinct (including inner courtyard spaces). It is foreseen that the Projects 3 and 4 will follow shortly after the commencement of this project, as these projects are to be completed as a whole.

Project 2 (Catalytic Project): Fire Station Square. In association with the aforementioned project, it is proposed that the fire station square be development as part of the catalytic projects for this precinct. The combination of Project 1 and 2 will function as the promoter for the Precinct development.

Project 3: Fire Station Housing (Phase 2). This project is the continuation from Project 1 housing delivery.

Project 4: Fire Station Housing (Phase 3). This project is the continuation from Project 1 housing delivery.

Project 5: New Fire Station Complex. Project 5 is the development of the new fire station complex that will serve the inner city areas of Germiston.

Project 6: Public Space Upgrade. This project entails the development of the remaining public spaces, squares, streets and the redevelopment of the Synagogue. It is foreseen that the developer should implement this project in coordination with the completion of the aforementioned 5 projects as the public spaces/ streets are required. Note should however be taken that this project is the item that binds the Precinct and should tie into, and integrate with the total Project Package which should be completed in totality.

Project 7: Secondary School. This project entails the development of a secondary school (at an urban scale). This is an associated project that is not primarily part of the Precinct; however that provides for the additional social facilities required.

Project 8: Primary School. As the project above this project entails the development of a primary school (at an urban scale). This is an associated project that is not primarily part of the Precinct; however that provides for the additional social facilities required.

It is also envisaged that the projects are to implemented as a Package of Projects by a singular developer, however for clarity and the understanding of each of the projects, the following section will provide the detail breakdown of each of the projects within the Precinct. Indicating its estimated composition, costing and programming.

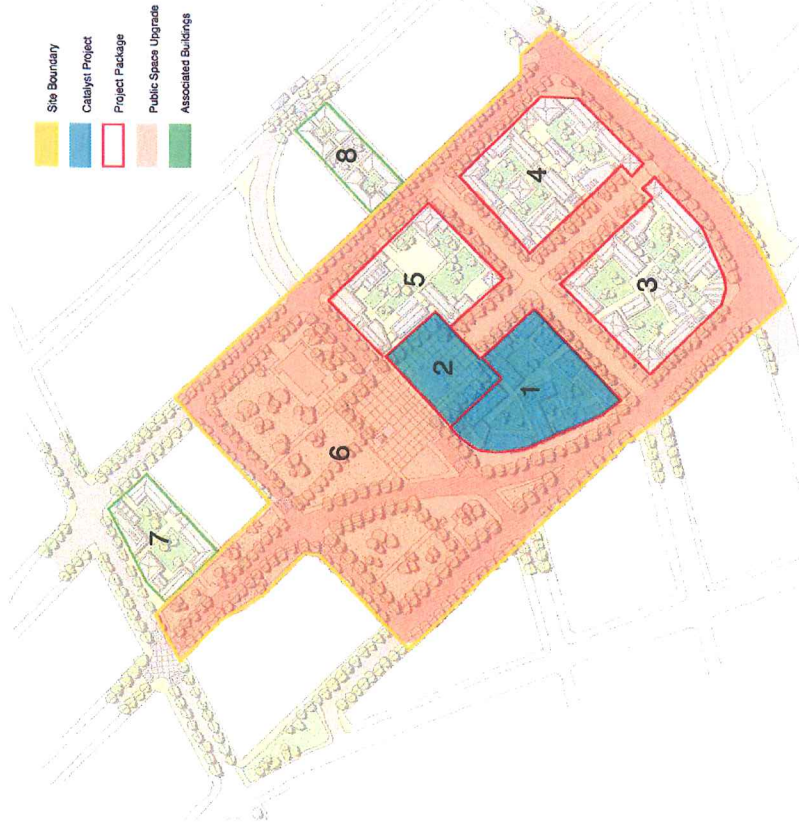


Figure 1-22 Project Package.

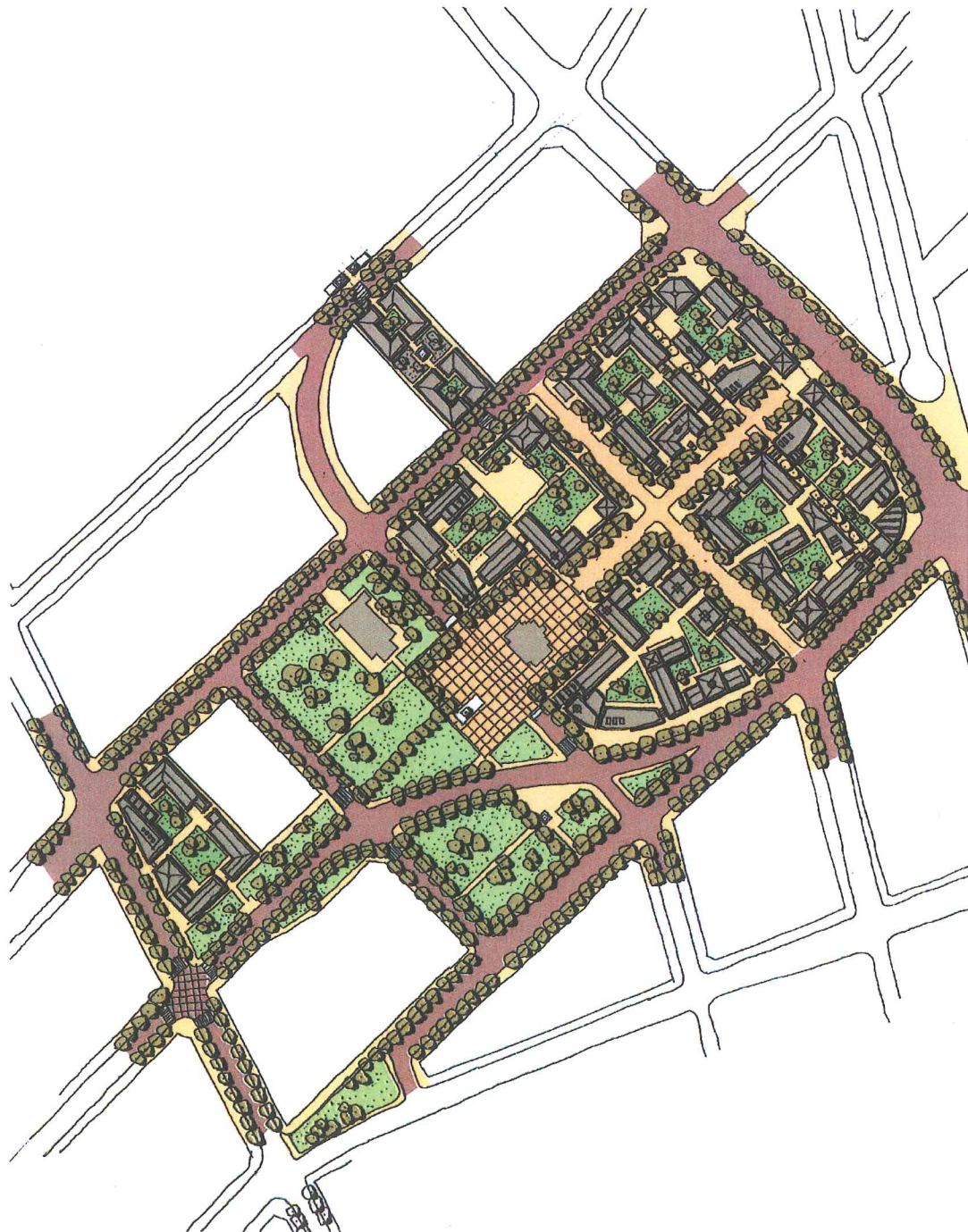


Figure 1-23 Fire Station Precinct vision plan.

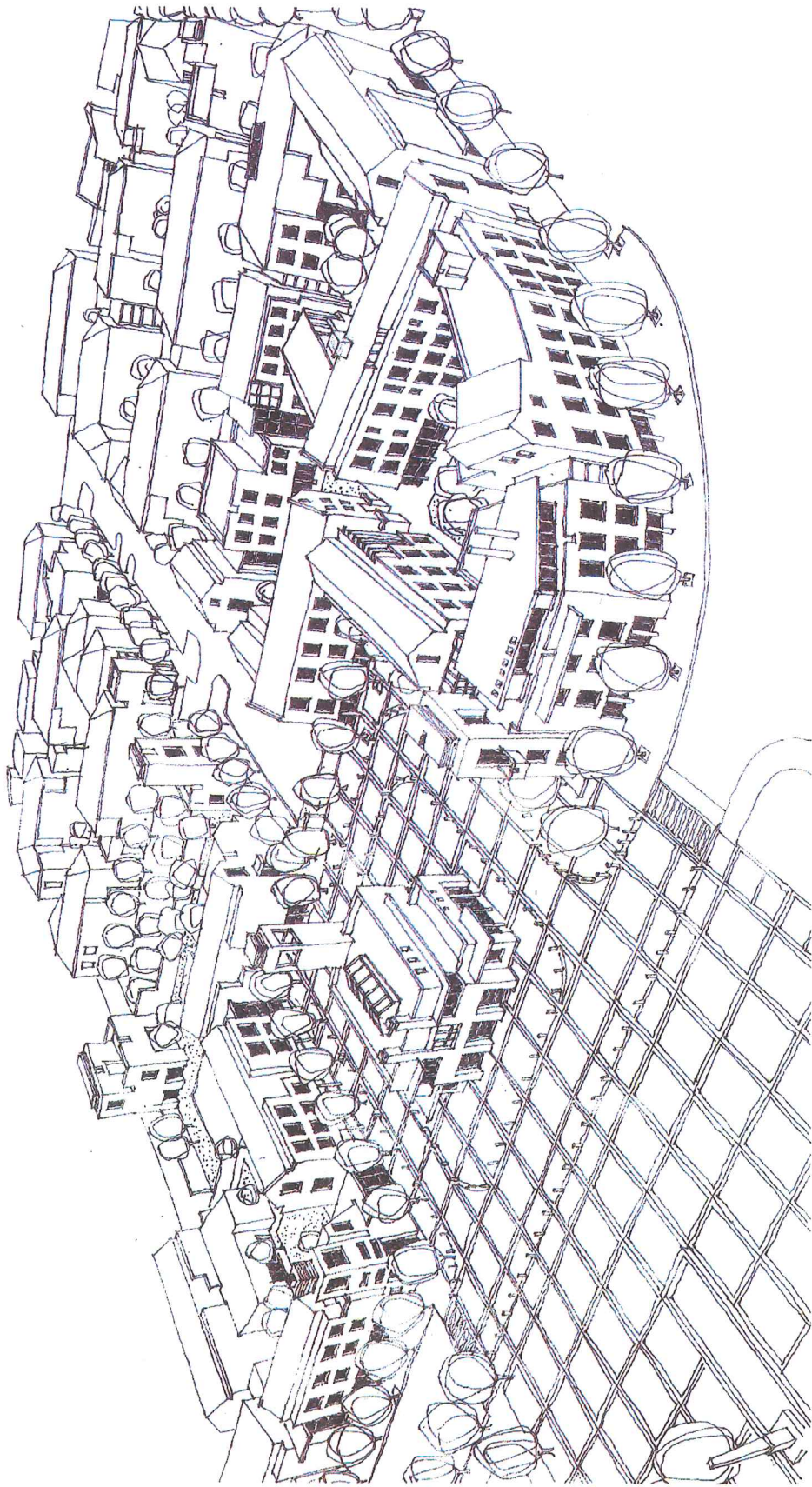


Figure 1-24 Fire Station Precinct vision birds eye perspective.

h. Project 1 (Catalytic Project): Fire Station Housing (Phase 1)

The Fire Station Housing Project (Phase 1) is seen as the first Catalytic Project within the Fire Station Precinct. This project aims to provide predominant social housing to be developed on land owned by the Ekurhuleni Metropolitan Municipality. This project is to be implemented by the Ekurhuleni Development Company (EDC). The EDC is currently in the process of detail design of the proposed housing.

Project Composition: The proposed Phase 1 development includes the development of a maximum of 4 storey buildings, with a minimum of 120 residential units. Supportive facilities such as retail (876m²) are also provided for. In relation to the parking requirements, a parking ratio of 0.5 parking bays per unit are employed here; that equates to a total provision of 60 parking bays.

The components include:

- Site area: 4 263m²
- Maximum height: 4 storeys
- Coverage: 72.75%
- FAR: 1.57
- Minimum number of residential units: 120 units
 - 1 bed (35m² max): 28 units
 - 2 bed (42m² max): 82 units
 - 3 bed (52m² max): 9 units
- Parking Ratio: 0.5 bays per unit
- Total parking provision: 60 bays (as on street parking)
- Retail land use: 876m²
- Residential land use: 5 802m²
- Total bulk floor area: 6 678m²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

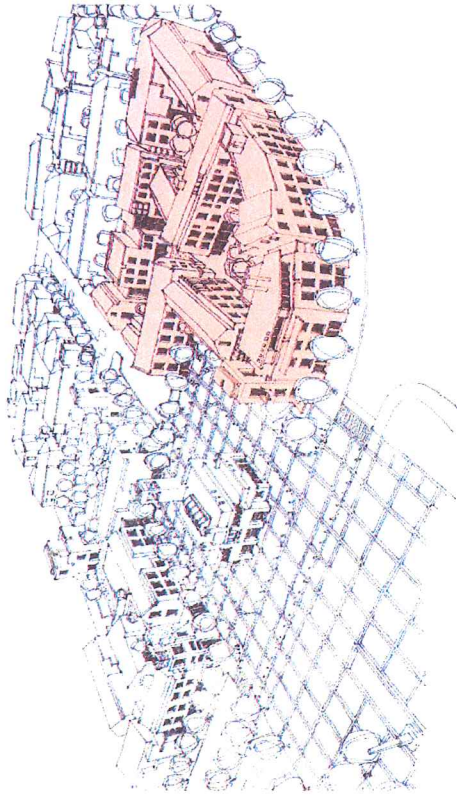


Figure 1-27 Location within precinct.

i. **Project 2 (Catalytic Project): Fire Station Square**

The second catalytic project is identified as the Fire Station Square. This project is located at the intersection of Angus Road and (the extension of) Meyer Street; where Meyer Street terminates in the Fire Station Square. This square contains the existing historic fire station building, and the aim is to develop a public square around this station and renovate the existing fire station into a public facility use or an extension of the proposed new fire station to the north east thereof. This land is owned by the Ekurhuleni Metropolitan Municipality. This project is to be implemented by the Ekurhuleni Metropolitan Municipality or in coordination with the appointed developer.

Project Composition: The proposed Fire Station Square development includes the development of a public square, park and the redevelopment of the old historic fire station building.

The components include:

- Site area: 5 162m²
- Maximum height: 2 storeys (and an existing 20m tower)
- Coverage: 6%
- FAR: 0.1
- Parking Ratio: Not applicable here, however provision is made for parking (approximately 15 parking bays) on the public square.
- Total parking provision: Approximately 15 bays
- Mixed land use: 1 544m² retail and public facility
- Square land use: 4 833m²
- Park land use: 8 046m² outside site boundary
- Residential land use: 0m²
- Landscaping & streetscaping elements:
 - Hard surface/ paving: 5 162m²
 - Trees: 27 (minimum)
 - Lighting: 4 (minimum)
 - Bollards: 90 (minimum)
 - Benches: 59 (minimum)
 - Bins: 86 (minimum)
 - Public art: 1 (minimum)
 - Fountain: 1

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

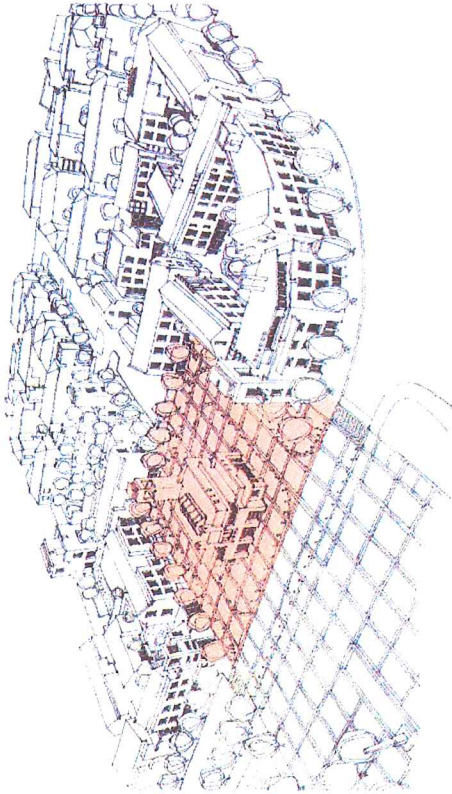


Figure 1-28 Location within precinct.

j. Project 3: Fire Station Housing (Phase 2)

The following 2 projects relate to the Fire Station Housing Project, and is seen as the continuation of the housing project within the Fire Station Precinct. This project aims to provide predominant social housing to be developed on land owned by the Ekurhuleni Metropolitan Municipality. This project is to be implemented by the Ekurhuleni Development Company (EDC). The EDC is currently in the process of detail design of the proposed housing.

Project Composition: The proposed Phase 2 development includes the development of a maximum of 4 storey buildings, with a minimum of 127 residential units. Supportive facilities such as public amenities (736m²) are also provided for. In relation to the parking requirements, a parking ratio of 0,5 parking bays per unit are employed here; that equates to a total provision of 63 parking bays.

The components include:

- Site area:	5 599m ²
- Maximum height:	4 storeys
- Coverage:	48,63%
- FAR:	1,23
- Minimum number of residential units:	127 units
- 1 bed (35m ² max):	30 units
- 2 bed (42m ² max):	87 units
- 3 bed (52m ² max):	10 units
- Parking Ratio:	0,5 bays per unit
- Total parking provision:	63 bays (as proportional on-street parking and sub-basement parking)
- Public amenities land use:	736m ²
- Residential land use:	6 130m ²
- Total bulk floor area:	6 866m ²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

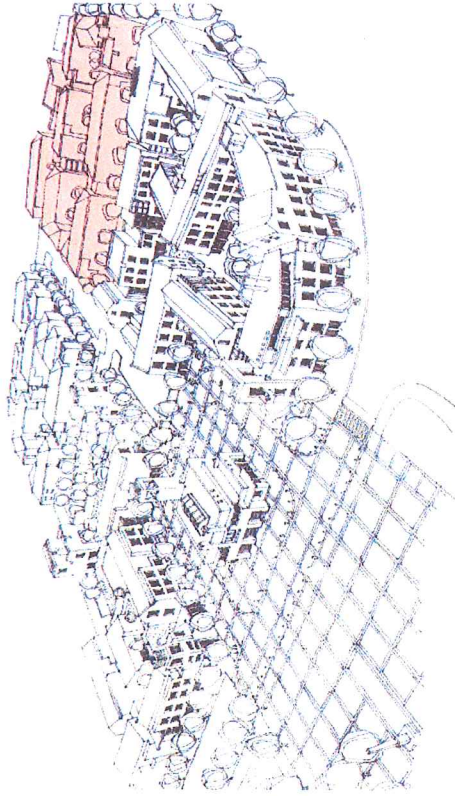


Figure 1-29 Location within precinct.

k. Project 4: Fire Station Housing (Phase 3)

The following project (continuation from above project) relate to the Fire Station Housing Project Phase 3, and is seen as the continuation of the housing project within the Fire Station Precinct. This project aims to provide predominant social housing to be developed on land owned by the Ekurhuleni Metropolitan Municipality. This project is to be implemented by the Ekurhuleni Development Company (EDC). The EDC is currently in the process of detail design of the proposed housing.

Project Composition: The proposed Phase 3 development includes the development of a maximum of 4 storey buildings, with a minimum of 128 residential units. Supportive facilities such as public amenities (crèche) (544m²) are also provided for. In relation to the parking requirements, a parking ratio of 0.5 parking bays per unit are employed here; that equates to a total provision of 64 parking bays.

The components include:

- Site area:	4 841m ²
- Maximum height:	4 storeys
- Coverage:	48.31%
- FAR:	1.39
- Minimum number of residential units:	128 units
- 1 bed (35m ² max):	30 units
- 2 bed (42m ² max):	88 units
- 3 bed (52m ² max):	10 units
- Parking Ratio:	0.5 bays per unit
- Total parking provision:	64 bays (as proportional on-street parking and sub-basement parking)
- Public amenities (crèche) land use:	544m ²
- Residential land use:	6 201m ²
- Total bulk floor area:	6 745m ²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

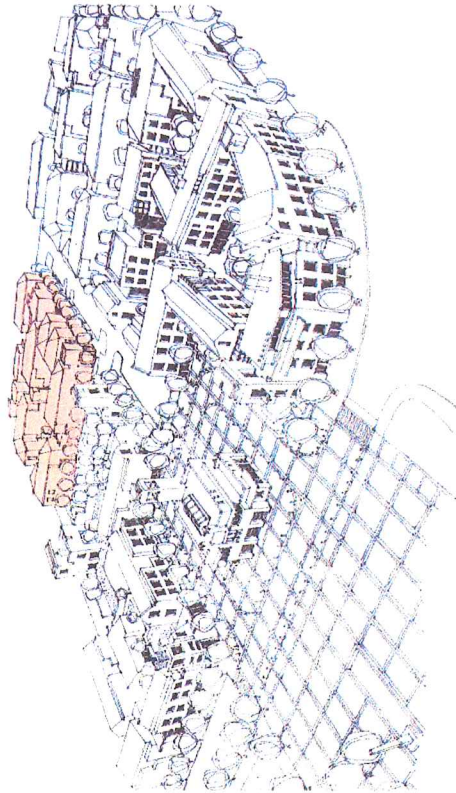


Figure 1-30 Location within precinct.

I. Project 5: New Fire Station Complex

It is proposed that a new fire station be provided on the northeaster quadrant of the site. The aim of this project is to provide for inner city emergency services provision, and also allow for the mix of land use within a Precinct. This project is to be implemented by the Ekurhuleni Emergency Services Department, with funding from the Department of Public Works. The Ekurhuleni Emergency Services Department is currently in the pre planning phases of this project. It is anticipated that this project could also be constructed by the appointed developer in association with the EMM.

Project Composition: This project includes the development of a new fire station complex, with a maximum height of 4 storeys, accommodating emergency services offices, training, accommodation and storage. It is noted that the site provision could potentially not be sufficient to cater for a regional facility, however will be sufficient in the long term to cater for the Germiston inner city requirements.

- The components include:
- Site area: 4 800m²
 - Maximum height: 4 storeys (and a 20m tower)
 - Coverage: 31%
 - FAR: 1.71
 - Minimum number of residential units: As required by Emergency Services
 - Parking Ratio: As required by Emergency Services
 - Total parking provision: As required by Emergency Services on site
 - Total bulk floor area: 5 340m²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

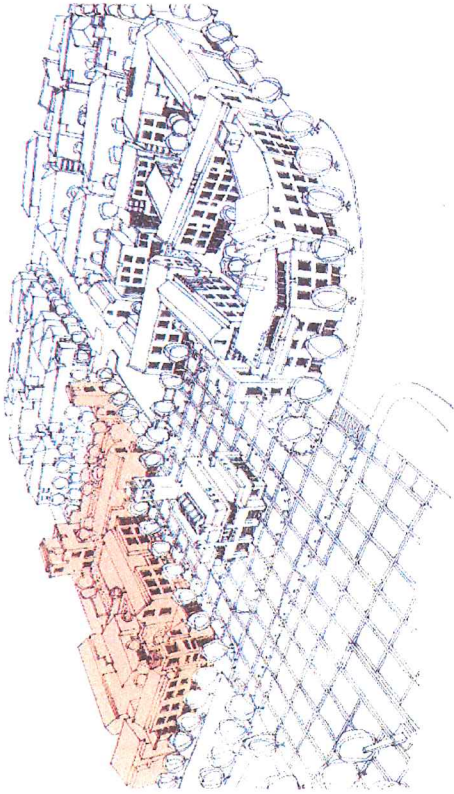


Figure 1-31 Location within precinct.

m. Project 6: Public Space Upgrade

This project relates to the public space upgrade of the identified Fire Station Precinct. The intent is not for this project to be conducted last, but rather to be implemented by the developer in a phased manner as the aforementioned projects are completed. It is envisaged that this project is a key element in completing the Precinct, and providing a completed urban framework. This project aims to provide good quality public space/ environments on land owned by the Ekurhuleni Metropolitan Municipality. The largest portion of land is owned by the EMM, however the Synagogue on Erf 3/809 (north east corner of site) should be acquired by the EMM to provide for a complete public realm.

Project Composition: This project includes the development of public square/s, parks, roads, on-street parking (as discussed in the above projects), public spaces & public amenities.

The components include:

- Site area: 12 537m²
- Maximum height: 2 storeys (Synagogue)
- Coverage: As is existing
- FAR: Not applicable
- Parking Ratio: 0.5 bays per unit
- Total parking provision: As indicated on maps for on-street parking
- Public amenity land use: 475m² (Synagogue) possible development into youth and old age centre
- Landscaping (Park/s) elements:
 - Hard surface/paving: 3 926m²
 - Soft surface/ grass: 8 611m² (of which 2 152m² planting)
 - Trees: 615 (minimum)
 - Lighting: 168 (minimum) Should also be provided as suspended lighting to limit obstacles within the public spaces where required.
 - Benches: 90
 - Bins: 207
 - Public art: 3
 - Fountain: 1
- Streetscaping elements: 455
- Street Lights: 140 (including pedestrian lighting) Should also be provided as suspended lighting to limit obstacles within the public spaces where required.
- Bins: 49
- Benches: 40
- Parking bays: 259
- Swales: 2 339m²
- Pavement: 10 787m²
- Road: 12 936m²
- Parking bays: 6 202m²
- Cycle lanes: 3 290m²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

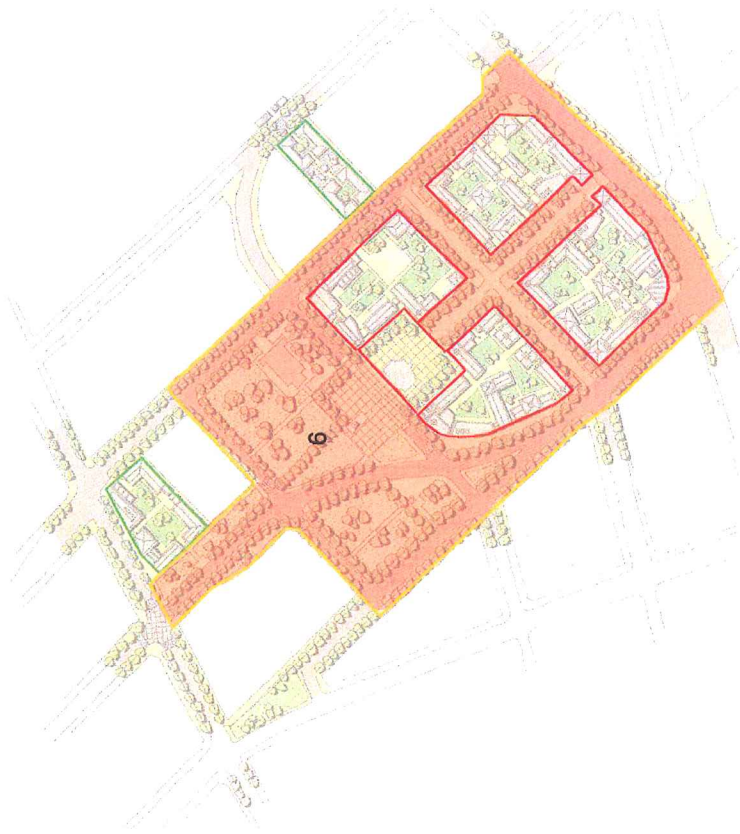


Figure 1-32 Location within precinct.

n. **Project 7: Secondary School**

Project Composition: This project entails the development of a secondary school (at an urban scale). This social facility is to be developed with the intention of sharing facilities and sport and recreation infrastructure with the surrounding area. Conversely the sports field of the schools in the surrounding area will be shared with this new 'urban' school to be provided. The school is however not located on land owned by the state, and should be acquired from the land owner. This is an associated project that is not primarily part of the Precinct; however that provides for the additional social facilities as required.

The components include:

- Site area: 2 183m²
- Ground floor: 1 161m²
- Maximum height: 4 storeys
- Coverage: 53%
- FAR: 2.2
- Total parking provision: As required by Town Planning Scheme
- Total bulk floor area: 4 644m²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.

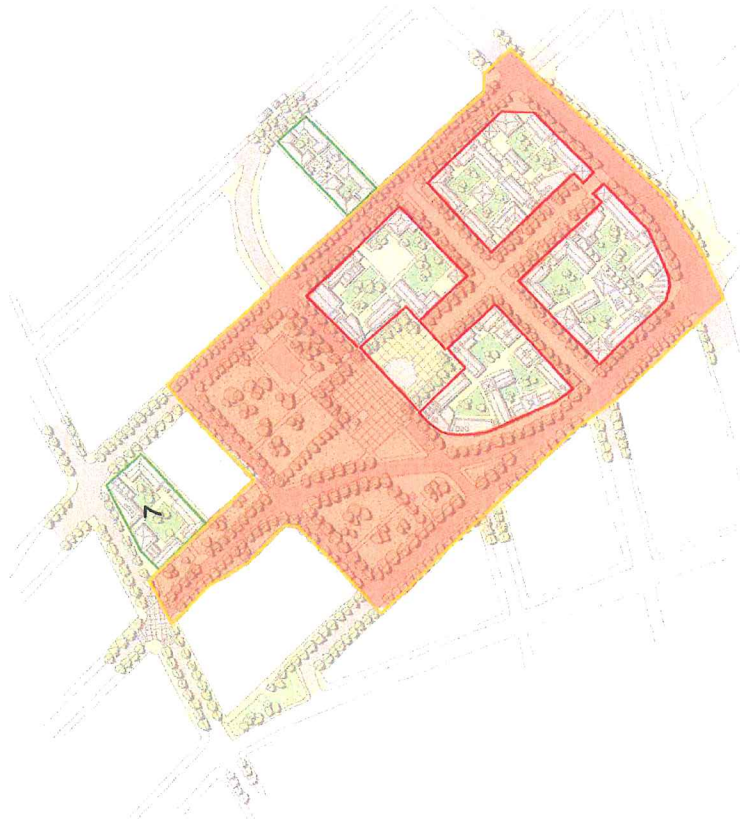


Figure 1-33 Location within precinct.

o. Project 8: Primary School

Project Composition: As the project above this project entails the development of a primary school (at an urban scale). This social facility is to be developed as per the project (project 7) above, with the intention of sharing facilities and sport and recreation infrastructure with the surrounding area. The school is however not located on land owned by the state, and should be acquired from the land owner. This is an associated project that is not primarily part of the Precinct; however that provides for the additional social facilities as required.

- The components include:
- Site area: 1 798m²
 - Ground floor: 828m²
 - Maximum height: 4 storeys
 - Coverage: 46%
 - FAR: 1.9
 - Total parking provision: As required by Town Planning Scheme
 - Total bulk floor area: 3 312m²

The detailed breakdowns of these components are indicated in the tables included in Annexure A.



Figure 1-34 Location within precinct.

p. Project Costing: Annexure B

The estimated Total Project Costing for the implementation of the total Fire Station Precinct Development equates to R 392,262,600 (Incl. VAT & Pre Contract Escalations). This costing breakdown and calculations are included in Annexure B of this Report. Please refer to this Annexure for the detailed breakdown of each of the projects and cumulative costing.

This total estimated cost is comprised of the following components:

- Project 1 (Catalytic Project):** Fire Station Housing (Phase 1): R 44,472,569*
- Project 2 (Catalytic Project):** Fire Station Square: R 12,269,425*
- Project 3:** Fire Station Housing (Phase 2): R 39,087,385*
- Project 4:** Fire Station Housing (Phase 3): R 36,871,979*
- Project 5:** New Fire Station Complex: R 59,895,058*
- Project 6:** Public Space Upgrade: R 62,467,938*
- Project 7:** Secondary School: R 45,235,628*
- Project 8:** Primary School: R 30,528,793*

*Excluding VAT and Pre Contact Escalations (R 48,172,600 & R 13,234,240 respectively)

Total Estimated Project Costing R 392,262,600
(R 330,856,000 + R 13,234,000 + R 48,172,600)

Note should be taken that the purchasing of land is also included in the above calculations.

q. Project Programming and Cash Flow: Annexure C

The Proposed Project Programme is included as Annexure C to this report. Here it is suggested that the total project would take a maximum of 6 years for total completion. It is however also suggested that this is the maximum period of construction, and that the proposed developer should complete the bulk of the projects within a 3 to 4 year period.

The proposed cash flow is also included in this Annexure. It is anticipated that the cash flow needs of the projects would result as follows:

- Year 1 (2013): R 19,613,000
- Year 2 (2014): R 39,226,000
- Year 3 (2015): R 70,607,000
- Year 4 (2016): R 98,066,000
- Year 5 (2017): R 117,679,000
- Year 6 (2018): R 47,071,600

r. Cost Benefit Analysis

Also included as part of Annexure B are the estimated cost components to be provided by the Ekurhuleni Metropolitan Municipality. These costs are considered as being the EMM input costs to the projects. Therefore the EMM should invest a total of R 78,504,788 (minimum) into the project to leverage R 392,262,600 of external/ private investment.

Therefore the investment ratio is 20%. Note should also be taken that the EMM should make the land available to a developer/ Implementing Agent as part of this investment ratio. The potential parties responsible for the funding of the elements of this Precinct can be listed as follows:

- The costs per project to be budgeted by the EMM include the following:
 - Provision of Electrical Connection: R 0 (included as part of Germiston Bulk Upgrade)
 - Provision of Water & Fire Connection: R 1,295,978* (Included as part of total costing)
 - Provision of Stormwater Connection R 1,506,090* (Included as part of total costing)
 - Provision of Sewer Connection: R 715,357* (Included as part of total costing)
 - Provision of Attenuation: R 250,000* (Included as part of total costing)
 - Provision of BRT System: R 0 (included as part of total Germiston BRT System)
 - Project 2 (Catalytic Project): Fire Station Square: R 12,269,425*
 - Project 6: Public Space Upgrade: R 62,467,938*
- TOTAL COST 1: R 78,504,788**

The costs per project to be budgeted by the State Departments include the following:

- Project 5: New Fire Station Complex: R 59,895,058*
 - Project 7: Secondary School: R 45,235,628*
 - Project 8: Primary School: R 30,528,793*
- TOTAL COST 2: R 135,659,479** (including connection costs above)

The costs per project to be budgeted by the EDC (Ekurhuleni Development Company) OR Private Developer/Agency include the following:

- Project 1 (Catalytic Project): Fire Station Housing (Phase 1): R 44,472,569*
 - Project 2 (Catalytic Project): Fire Station Square: R 12,269,425*
 - Project 3: Fire Station Housing (Phase 2): R 39,087,385*
 - Project 4: Fire Station Housing (Phase 3): R 36,871,979*
- TOTAL COST 3: R 132,701,358** (including connection costs above)

The following section illustrates how the implementation of these projects could be initiated and completed through the use of an Implementing Agent/ Developer -making use of the abovementioned investment from the EMM and the availability of the land.