



# Chapter 3

## Context Analysis

### 3.1 Overview

Before proceeding into detail design, it is necessary to analyse the **site**. This consists of analysing site location, physical conditions, climate, transport routes, land use, built character around site and town council planning schemes, as well as requirements of the client and users. This is important in this study, since the Gautrain Hatfield station is not complete yet, even though it is assumed, from a design point of view, that they are.

The chapter leads with a detailed description of the **Gautrain system identity**, the existing system of motifs, finishes and construction details Bombela have included as part of the station design guidelines. It is necessary to explore the aesthetic guidelines within which the design and strategy are metaphysically located, even if the aesthetic response for refreshment and retail facilities might differentiate from the original GSI guidelines.

The proposed **users** of the system are also investigated before moving on to the site investigation of the focus site, Hatfield Gautrain station.



## System Identity

The concept of a “system identity” stems from the London underground system, first initiated with a corporate design in 1916 and developed from there.



Roundel logo, Frank Pick, 1918



Tube map, Henry Beck 1933

[GAJV 2008:5]

## 3.2 Gautrain System Identity

### 3.2.1 Scope

Part of the Master Architect’s role on the GRRL project is to establish generic, system-wide details and standards for the GRRL system identity (GAJV 2008:3). Together these constitute the Gautrain System Identity Design Manual. (GAJV 2008:6). The different work packages and more detailed, site-specific station design packages are to be checked by the Master Architect for compliance with the generic GRRL system identity (GAJV 2008:3).

The generic, linewise concepts inform:

- \* Linewise station identity
- \* Entrances and external elevations
- \* Finishes, materials and colours
- \* Fencing, gates and other security features
- \* Landscaping
- \* Bus stops
- \* Viaducts, bridges and portals

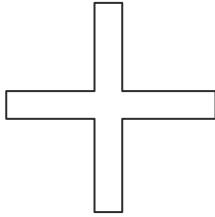
Generic details had been designed for:

- \* Lifts and escalators
- \* Stairs
- \* Handrails and barriers
- \* Doors and ironmongery
- \* Information systems
- \* Advertising
- \* Carpentry and joinery
- \* Acoustic treatments
- \* Suspended ceilings
- \* External cladding and glazing systems
- \* Sanitary fittings and accessories
- \* Specification for finishes and materials
- \* Station furniture - public and ROA

Detail drawings include those for the:

- \* Ticket office
- \* Station office

## System Identity



- + Create customer affinity
- + lower lifecycle & maintenance costs due to standardisation
- + ease of use & legibility
- + accessibility

[GAJV 2008:7]



**The object of these guidelines and standards is not to create an authoritarian approach, but rather a framework to orientate and guide designers...**

**...each designer brings their own creative contribution to an evolving unified design. In this way the operator can manage the lifecycle of the system in a cost effective and design managed way**



[GAJV 2008:7]

- \* Vending machine enclosures
- \* Lift cars
- \* Station furniture and components
- \* Signage (excluding statutory)

(ibid.)

At the time of research, the Hatfield specific identity had not been available. Therefore, the research regarding GSI had to be limited to the generic GRRL system identity.



### 3.2.2 GSI Philosophy

The Gautrain system identity is an expression of technological achievement infused with **African metaphor**. Because of the cultural diversity inherent in South Africa and Gauteng, it would seem the African metaphors were chosen for their non-denominationality and a-culturalness. They relate to human activity and landscape, rather than embody any one culture.

One of the central concepts of the GSI is the **acacia tree** and idea of trees as places of pause along pathways, providing shelter from the African sun and a place for **rest, meeting, trade and worship** (GAJV 2008:9).

The train system was conceived of as a **journey** through a rural landscape, interspersed by meeting and rest nodes, marked by a lone **acacia tree** (figure XX) (GAJV 2008:10). So the railway lines are envisioned as pathways enabling the journey and stations as meeting places along the pathways. Thus, stations become conceptual "meeting place trees".

### 3.2.3. GSI concepts

Gautrain stations need to express the Gautrain brand. To this effect, certain elements are required to become recognisable as part of the Gautrain brand (GAJV 2008:11-12). These elements are derived from the GSI philosophy.

## Tree structure

The internal columns in Gautrain stations resemble the trunk and branches of the acacia tree, holding up the ...

## Wave structure

roofs,  
derived from the umbrella shaped canopy of the acacia tree.

## Transparency

is incorporated into the design in aid of legibility in above ground stations and where possible, below ground stations, since stations are conceived of as **meeting places**. The underlying metaphor is complemented by technological consideration bringing the Gautrain system in line with international precedents. For example, while transparent elements allow sunlight in, elements allowing energy efficiency are built in elsewhere (GAJV 2008:12).

## Micro & macro regional influences

Various local influences are incorporated at individual stations in order to anchor the stations in the local contexts and create regional public affinity and identification with the Gautrain system (GAJV 2008:12).

☞ **The tree is a most significant element in the African landscape,**

**The tree is an icon to the sub-Saharan environment**

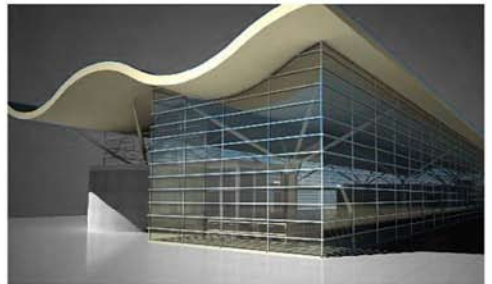
**The tree is a focus to a way of life** ☞

[GAJV 2008:9]





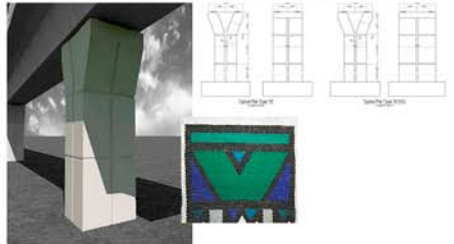
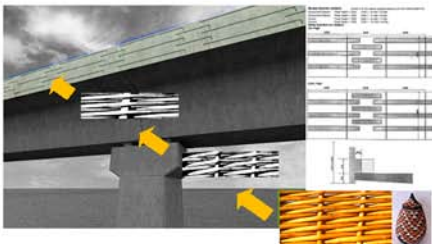
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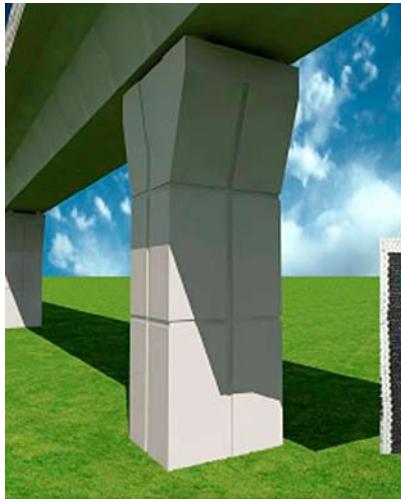
**Wave**

*Transparency*

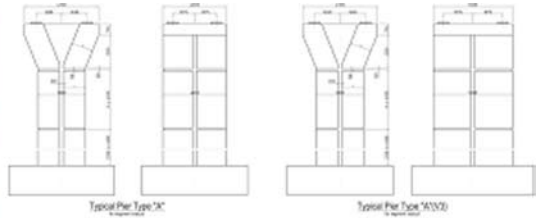
**Regional influences**







20..



20. Viaduct piers exhibiting influences of both the tree motif as well as local arts and crafts.





21.



21. Signage and wayfinding

22. Various external and interior material and detail sample mock-ups at the Bombela offices would offer a better understanding of the Gautrain aesthetic.

# EXTERIOR

## **paving**



square concrete cobbles in colour charcoal and tan



brick pavers in herringbone pattern



sandstone listello to plinth



## **glazing**



silver PPC Aluminium glazing frames



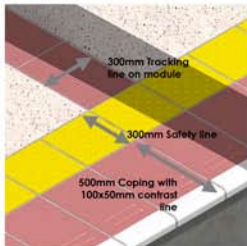
## **canopy**



Silver PPC steel sections, and clear polycarbonate



## **platform**



# SANITARYWARE

## *wc's & urinals*



*Wall hung Wc*



*wall hung disabled WC*



*urinal  
and flush plates*



## *wash hand basins and taps*



*wall hung WHB with  
lever mixer taps*



*sensor operated vandal  
proof tap*



## *hand drier*



*electric hot  
stainless steel*

## *stairs and balustrade*



*grey painted GM steel balustrade with stainless steel handrail at high low heights*



*contrasting colour nosing for visibility, return on handrail for accessibility, grip tread*

## *doors and ironmongery*



*wooden doors with brushed stainless steel ironmongery and double rebate door detail*



*brushed stainless steel ironmongery with disabled accessible latch (top)*

## *seating fixed*



*profiled concrete bench, painted chalk white with polished ceramic tile skirting*



# INTERIOR

## floor



*terrazzo tiles in*



*cream with*



*grey border tile*



*black granite tiles, structured finish and polished finish*



## wall



*terrazzo effect tiles in*



*grey variegated*



*soft mocha and white*

## columns



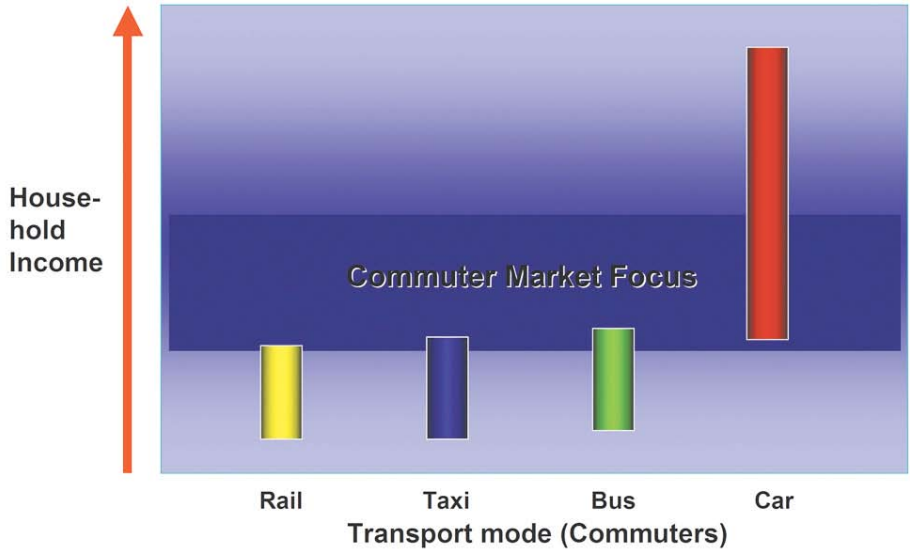
*polished black granite skirting tiles, painted grey, steelwork painted white*





### 3.2.8 Gautrain users

As mentioned in Chapter 1, the GRRL is directed mainly at users of low to middle income who may or may not own cars and need to commute regularly between Tshwane and Johannesburg (ibid.). This group also includes public transport users who have either bought a first family car or are 'upgrading' from traditional public transport because of increased salary levels.



23. The diagram illustrates the target market of the GRRL in terms of current method of transport



## *Precedent //*

### *Liverpool Street Station, London*

Liverpool Street Station, refurbished in and opened in 1992, has many retail and refreshment facilities. These include:

- Accessory / jewellery stores
- Food market (Marks & Spencer)
- Take-away venues and quick service restaurants
- News agents and newsstands
- Gift shops
- Convenience stores.

The public station concourse also contains a variety of services both expected and ancillary to its function as a transport interchange with local, long-distance and express rail, bus and Underground services. Services include:

- Tickets and information
- Telephones
- Taxis
- Buses
- Toilets and baby changing
- British Transport Police
- First aid
- Additional assistance
- Trolleys
- Cash and Bureau de Change
- Post Office
- Left luggage
- Photo booths
- Lost property
- WiFi Coverage

[Network rail 2009:[sp]]



## *Precedent //*

### *Pretoria Station, Pretoria*

Pretoria station is one of the main South African Rail Commuter Corporation (SARCC) Metrorail stations for the city of Tshwane. There are various services and retail facilities incorporated in the main building as well as outside.

Inside the terminal building in the unpaid area are:

- ticket kiosks,
- male and female toilets a
- restaurant and small café, and a
- small convenience shop selling snacks, drinks and cigarettes.

Outside off the parking area and along Scheiding St. a bustling semi-formal market sells variety of consumer goods, fast food, snacks, cool drinks and services, such as cheap telephone stalls.





24. Gautrain users' needs illustration

According to Lynch (1981) people in an urban setting require **access** to other people, **activities, resources, places** (shelters, open spaces, symbolic, natural etc.) and **information**.

This theory is supported by the investigation of the range of services, retail and refreshment services provided in other train stations such as Liverpool Street station in London and Pretoria station. The facilities could be grouped in five basic categories:

Administrative - Ticketing, offices, security etc.

Shops - food, items and luxury goods

Eating & drinking - coffee bars, snack bars, take-aways, restaurants

Services -hairdressers, shoe shine, or repair, luggage storage, ATM's and Bureau de Change

Ablution facilities.

From this, five **common station activities** that could be applied to the GRRL stations could be identified:

EAT (coffee, cool drinks, snacks, sandwiches, paninis, fruit)

PAUSE (SIT / WAIT / READ)

SHOP (BUY curios, papers, magazines, small convenience items, hats, scarves, gloves, gifts, cigarettes, etc.)

ACCESS INFORMATION

ABLUTION

The ablution function is already available at all stations to regular and disabled users, mostly from the paid concourse, beyond the ticket barriers. Therefore, the ablution function should not be addressed as part of this study, except for being conceptually explored as part of larger scale facilities removed from the con-

courses or station building.

An important factor in whether or not refreshment facilities will be used at Gautrain stations is the **time** available to the users. The minimum frequency of trains between Johannesburg and Tshwane will be five trains per hour, meaning that there will be a train every twelve minutes. During off-peak hours, the service is reduced to three trains per hour, making it one train every twenty minutes (Gautrain Rapid Rail Link 2009:[sp]).


Twenty minutes would seem a long time to wait on a train platform, but is ample time to buy a take-away coffee, newspaper and sit and read a while.

Action	Estimated time
Select paper	30 seconds
Queue & pay	30 seconds – 3 minutes
Walking time	30 sec – 1.5 minutes
Queue for coffee	10 sec – 3 minutes
Order coffee & pay	30 seconds
Wait for order	2 minutes
Customise beverage	1 minute
Access Wi-Fi network Check email	10 minutes
<b>Total</b>	15min 10 sec – 21.5 minutes

These values are estimates based on observation and timing of service at a take-away coffee shop on University of Pretoria campus as well as being based on personal experience. Duration also depends on proximity of services to each other and length of queues

Other users could include passersby and workers in or around the Hatfield area.

Activities	Use by commuters and tourists	Types of facilities
EAT	•	coffee take away, snack kiosk, sandwich bar panini bar cool drinks food, snacks and drinks vending machines
SHOP	•	arts & crafts / souvenirs / local crafts newsagents (newsprint & magazines) impulse buy convenience items (tissues, pens, cellphone air-time, cigarettes) seasonal - hats, scarves, gloves, sunglasses photo booths
PAUSE	•	SIT / WAIT / READ public seating small 2 person chill rooms news or local information on LCD flat screen TV's left luggage facility
ACCESS INFO	•	station wide Wi-Fi for internet / email access to wireless devices public LCD flat screen TV's set to news channels touch screen local and tourist information kiosks Internet access terminals (pre-paid or coin operated, supervised) ATM's public telephones DVD rental vending machines
ABLUTION	•	public toilet facilities public disabled WC facilities baby change room
Individual actors	Mid-to low income car users Higher income public transport users / one car families International or South African tourists from other regions	
Activities / Importance	Support public transport venture Support local job creation Support tourist industry	

 Area for further investigation



25. Nolli map of Pretoria with Hatfield area outlined in red.

### 3.3 Site location

This study focuses on the Gautrain station located in **Hatfield**. Other stations, such as Pretoria and Belle Ombre in Pretoria had been investigated as potential sites for the thesis, but at Hatfield, the lack of retail and refreshment facilities adjacent to the GRRL station was especially dire.

Hatfield was chosen as the last stop on the Gautrain for its proximity to a number of services and facilities, such as:

- \* the N4 and N1 freeways, major arterial roads into the Tshwane Central Business District (CBD),
- \* existing Hatfield business, office and retail node,
- \* Innovation Hub,
- \* University of Pretoria (UP) sports grounds, high Performance Sports Centre and campus,
- \* Loftus Stadium,
- \* embassies and diplomatic missions,
- \* Brooklyn Mall retail facilities (10 minute drive),
- \* Academic institutions other than UP including Boys' High School, Pretoria High School for Girls, Afrikaans Meisies Hoër, Afrikaanse Hoër Seunskool as well other private schools and colleges (Gautrain Rapid Rail Link 2009:[sp]).

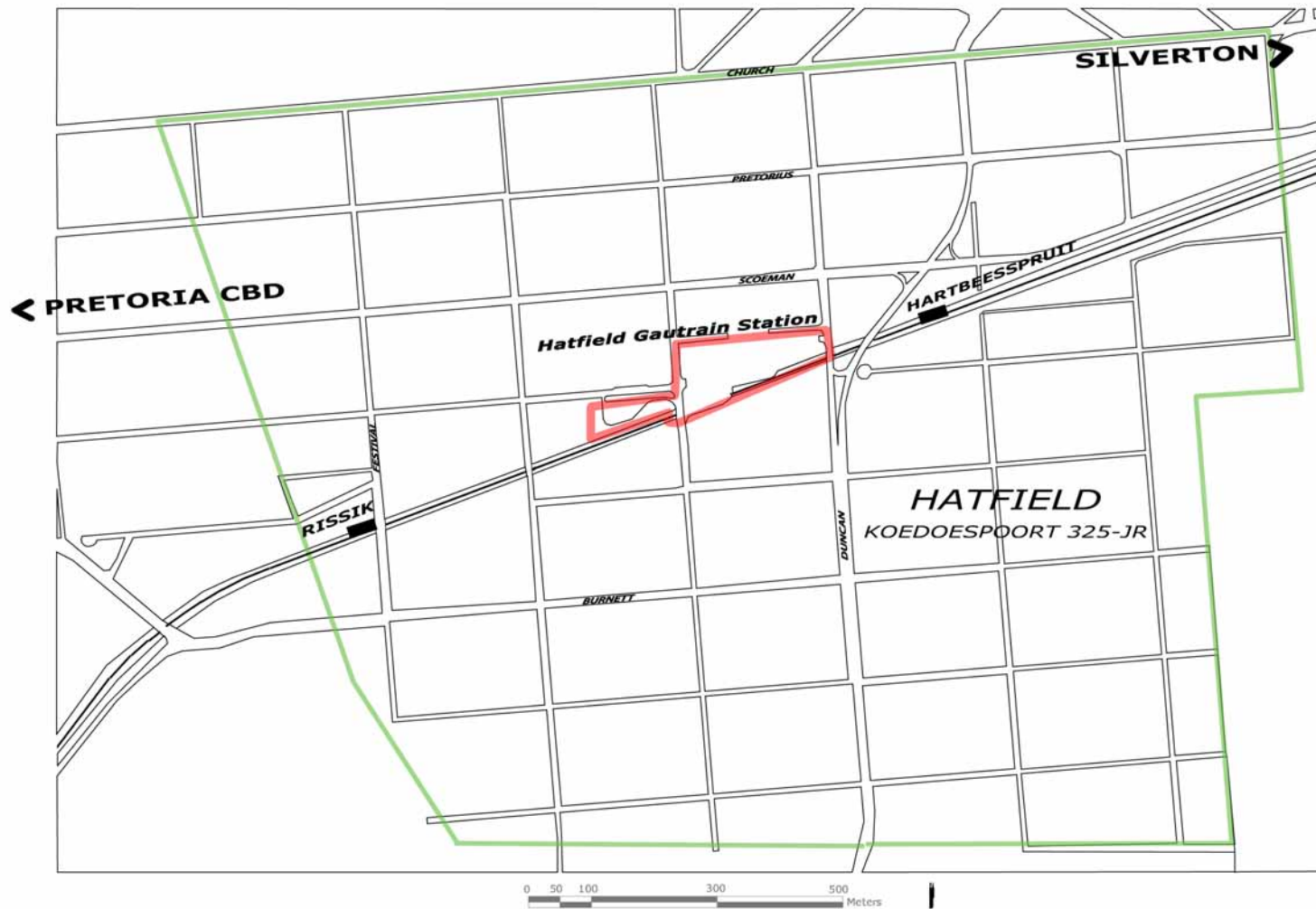
As such the Hatfield Gautrain station area has potential for **supporting** the GRRL station at Hatfield. The station should in turn be regarded as a catalyst for further development in the Hatfield area.

The site location within the Hatfield context is indicated in the figures on the next pages.

The appearance and layout of the Hatfield GRRL station is illustrated on the pages following.

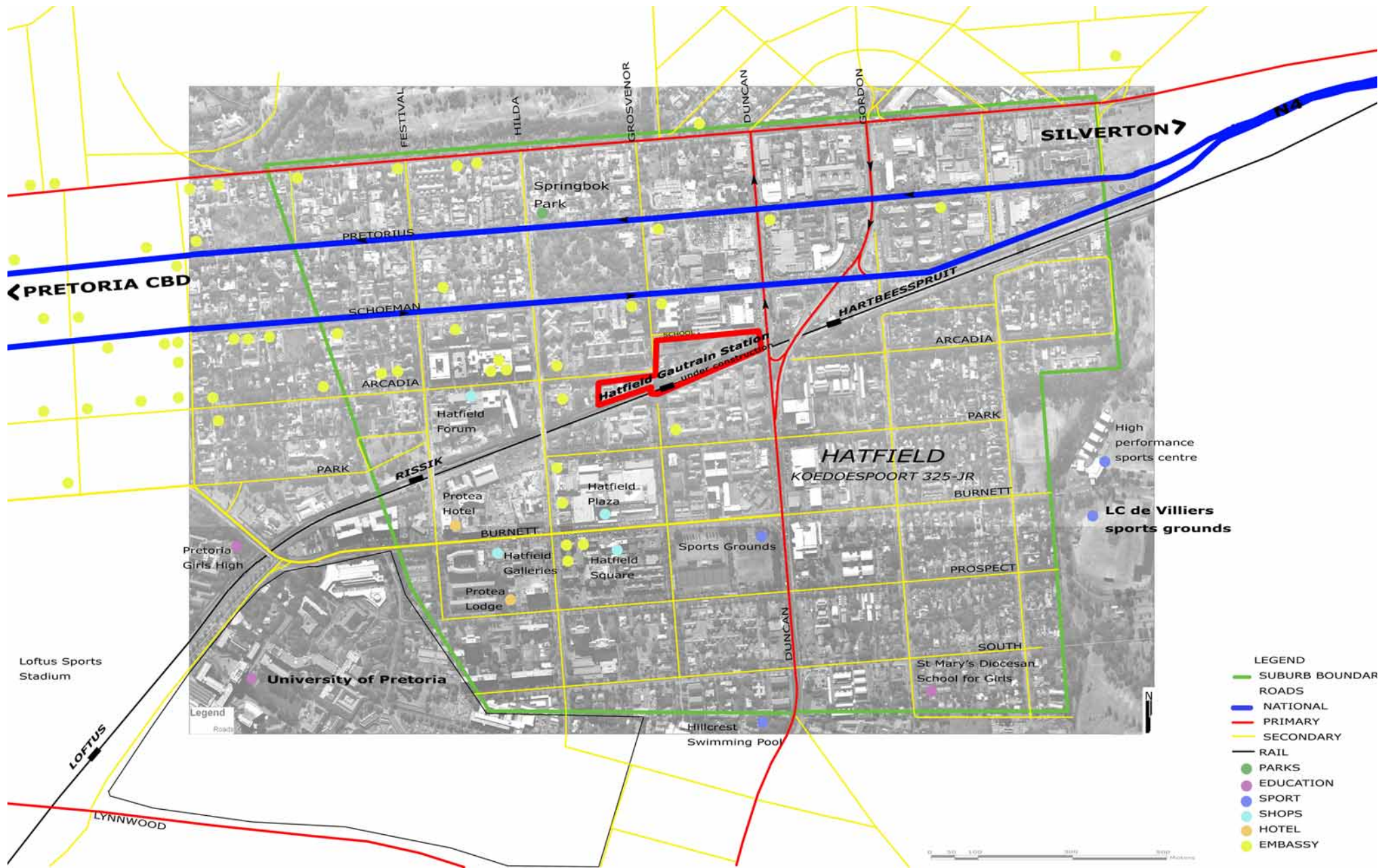


25...



## *Site location in Hatfield*

The site is located on the outskirts of the city centre and located on the SARCC railway line between two Metrorail stations



*Site location in Hatfield*

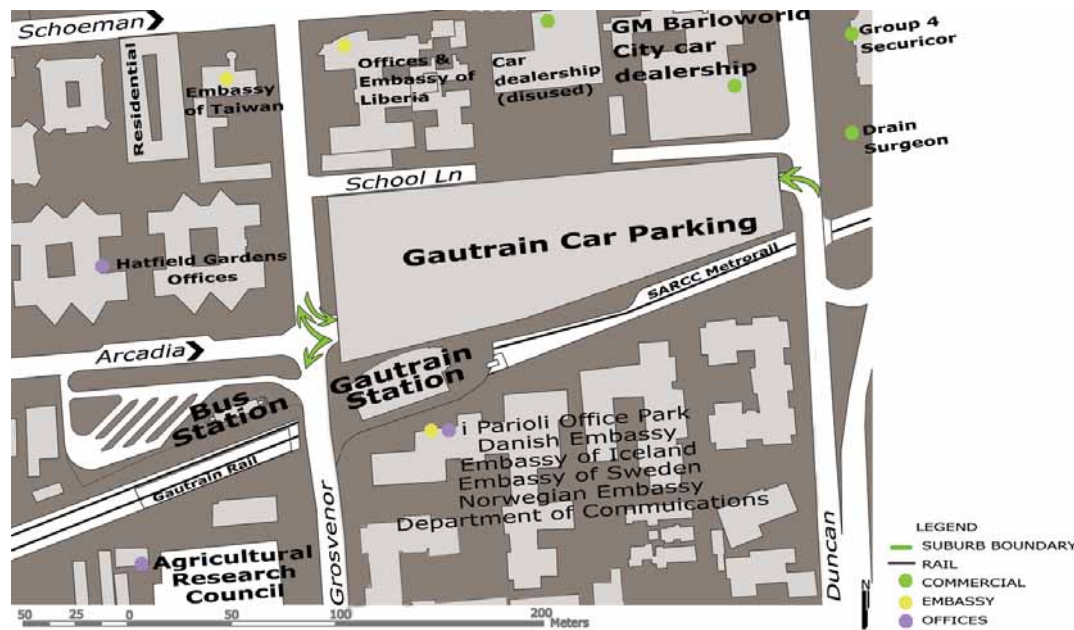


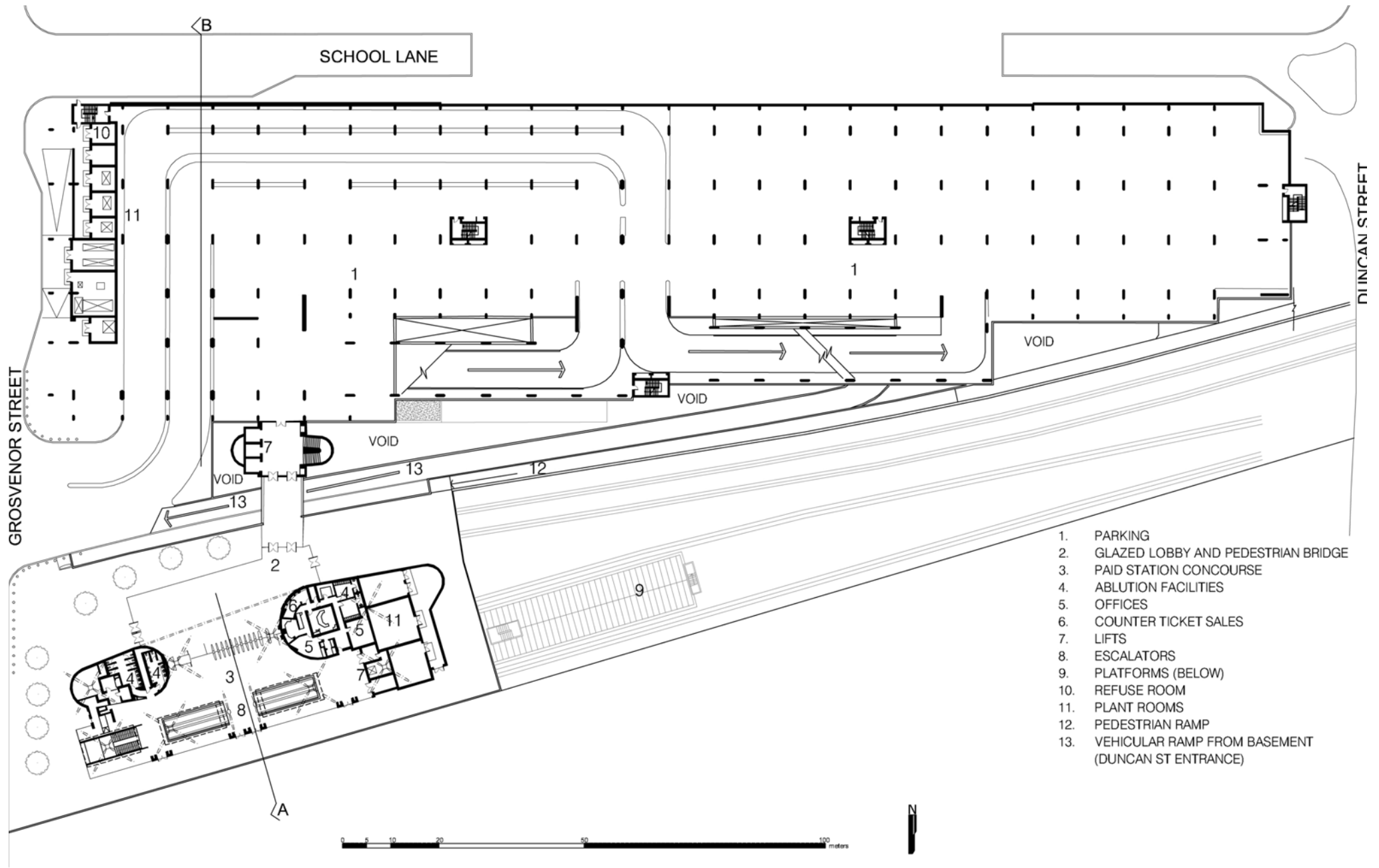


*Figure ground site map*

*artist's impressions*

The immediate station surrounds supports mainly office, commercial (motor showrooms and some residential and retail uses

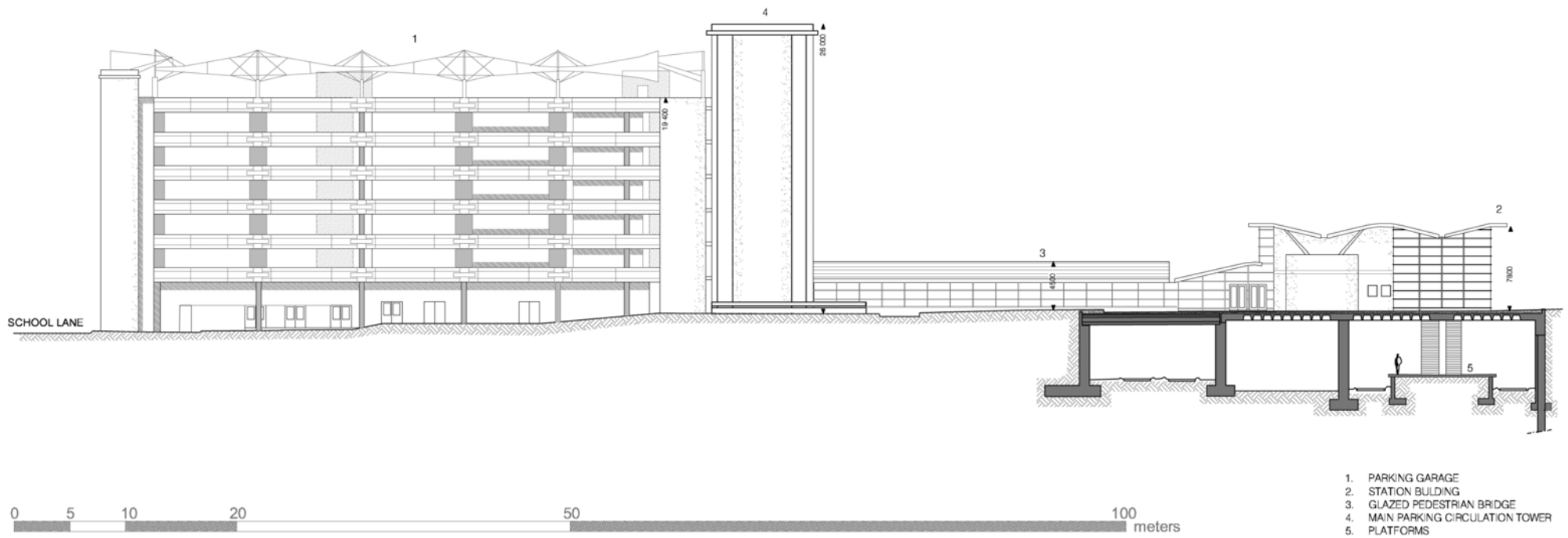




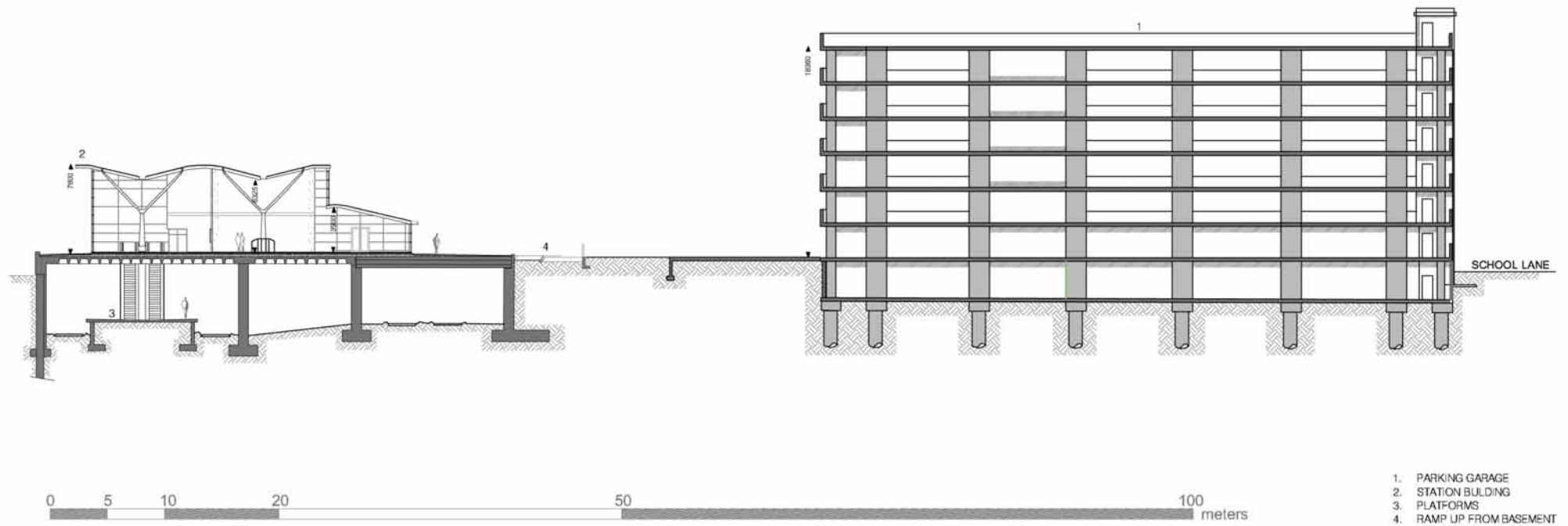
1. PARKING
2. GLAZED LOBBY AND PEDESTRIAN BRIDGE
3. PAID STATION CONCOURSE
4. ABLUTION FACILITIES
5. OFFICES
6. COUNTER TICKET SALES
7. LIFTS
8. ESCALATORS
9. PLATFORMS (BELOW)
10. REFUSE ROOM
11. PLANT ROOMS
12. PEDESTRIAN RAMP
13. VEHICULAR RAMP FROM BASEMENT (DUNCAN ST ENTRANCE)

*Gautrain Hatfield site layout*





*Western  
section / elevation*



*Section A-B*



26.

## Bus feeder & distribution system fast facts

36 Bus routes serving 9 stations

125 Gautrain Buses at start-up

430 kms of routes with bus stops every 500 metres

26 000 kilometers of bus service per day

High quality buses : low floor, air conditioned, fully accessible

Safety and security enhanced through radio communication and satellite tracking of vehicles

Buses availability : 99%

Buses punctuality : 95%

27.

[Andrew 2009:14]



26. The Hartbeesspruit Metrorail station has the potential to connect the Hatfield Gautrain station to the Tshwane Ring Rail system.

27. Feeder and distribution route bus.

### 3.4 Transport routes

The Hatfield GRRL station was designed as a **multi-modal interchange**. Figure 29 shows how the Hatfield station fits in the Pretoria-wide transport network, highlighting the Gautrain route, SARCC Metrorail and nearby bus rapid transit (BRT) routes.

Within the station precinct the station is meant to allow easy pedestrian movement between the station and various modes of transport and Hatfield centre. A pedestrian walkway links the station to the nearby **Hartbeesspruit SARCC station**. A planned pedestrian walkway alongside the railway reserve will link Hartbeesspruit station through the Gautrain station, to Risik station (Hatfield Station development Framework 2003:24). A **bus terminus** is provided to the west of the station across Grosvenor street. The GRRL Hatfield station will, upon commissioning, be serviced by dedicated **bus feeder and distribution** routes.

#### a. SARCC

The SARCC (PRASA) rail runs alongside the Gautrain tracks. It provides commuter rail services between Mamelodi and Pretoria City centre and could link the station with the Metrorail and Pretoria Ring Rail system.

#### b. Gautrain bus feeder and distribution routes

The Hatfield station will, upon completion, be serviced by dedicated bus feeder and distribution routes, connecting it to Brooklyn, Lynnwood, Arcadia, Waverley and Faerie Glen (figure 28). A further route along Lynnwood road is being considered. It is envisioned that commuters to Hatfield station will walk to their onward destination or make use of the BRT, buses or taxi's.

#### c. BRT

The Bus Rapid Transit system is a system that has been fast-tracked by the Gauteng Government in order to provide a high quality bus service in time for the FIFA World Cup, to be hosted in South Africa in 2010. The system will provide fast, efficient, clean and safe bus service in Pretoria city centre. The closest BRT routes to the Hatfield station are in Church St, three blocks north of the Hatfield station and Loftus SARCC station and Lynnwood road.

#### d. Bus and taxi

Metro buses and taxi's provide a more localised service in the station precinct. However, these will need up-

grading and regularisation (taxi's) before meeting the standards of the majority of GRRL users.

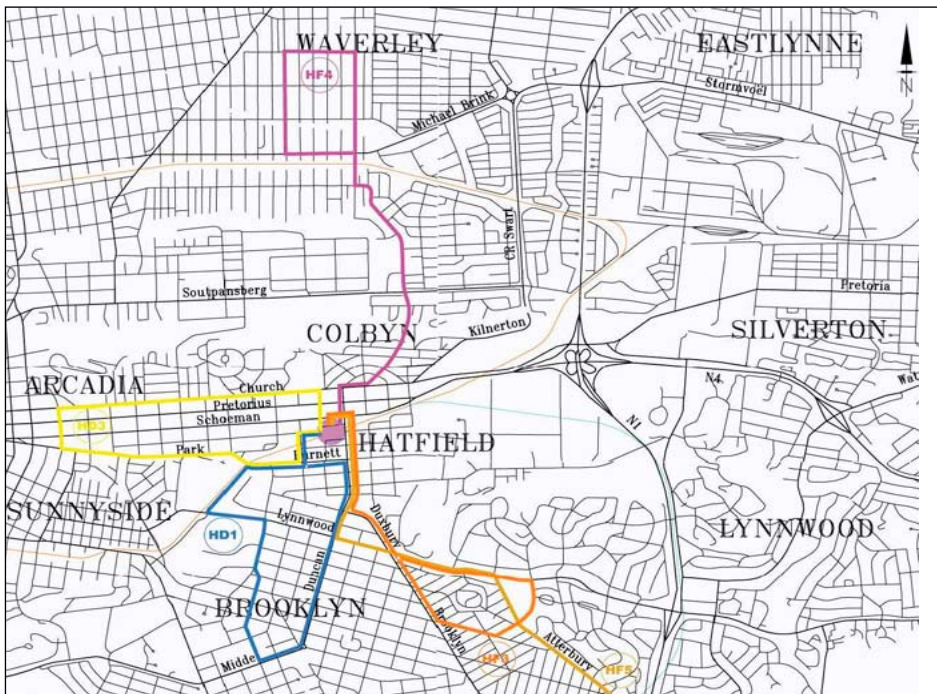
### 3.5 Station precinct

For the purposes of this study the station precinct incorporates an area within a 300m radius from the station building.

The erven constituting the site are still regarded as unconsolidated according to COTMM Planning division. The consolidation of the erven will be taken care of at the time of expropriation of the site by the Gauteng Provincial Government (see section 3.5.2 and 3.5.3 in this chapter).

The contours on site are mostly fairly level, with a gentle slope towards the northeast corner of the site. The steep cut slopes within the railway reserve drops the ground level by approximately 5 meters to the railway tracks.

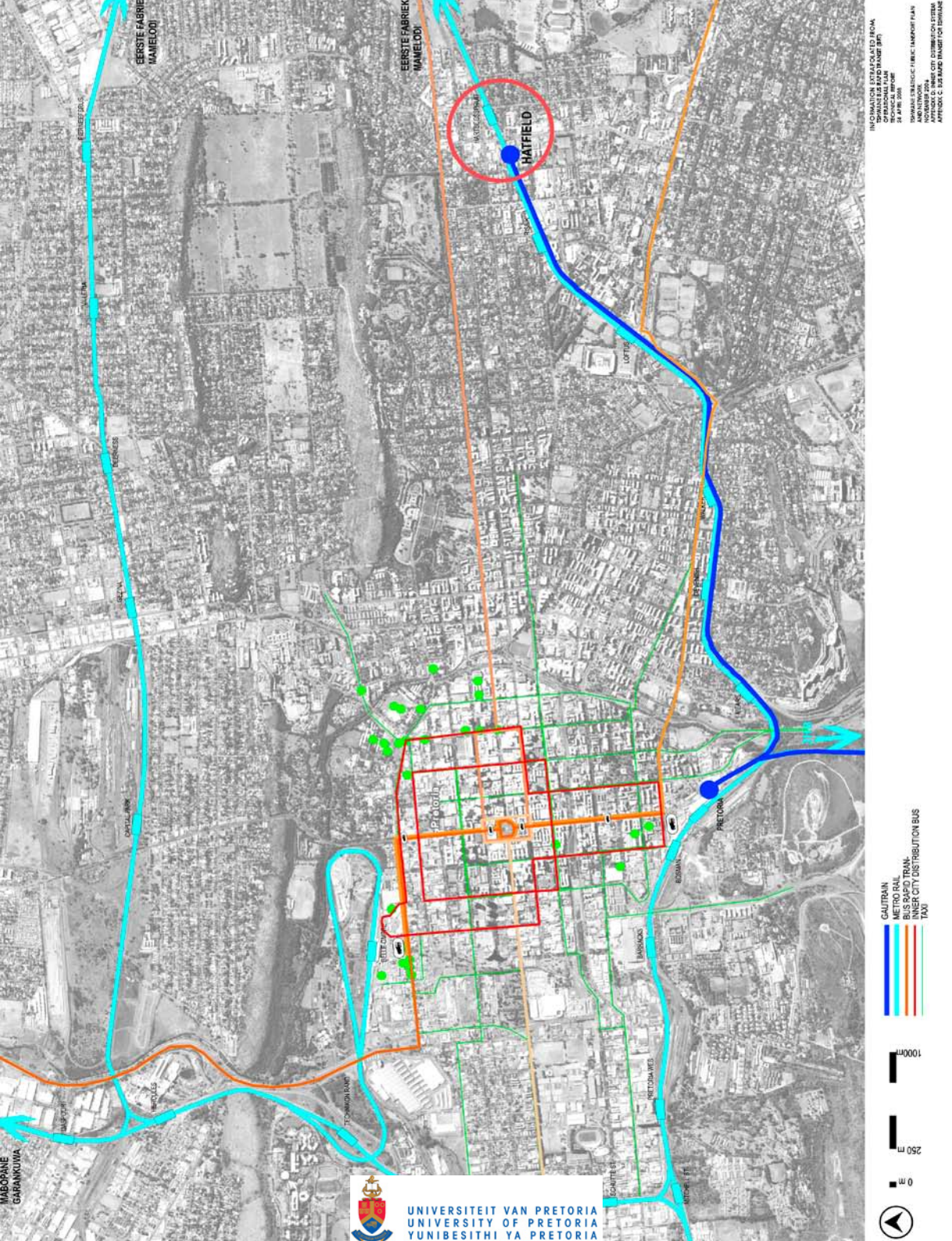
28.



28. Feeder and distribution bus routes from Hatfield GRRL station give an indication of the catchment area for the Hatfield GRRL (Gautrain Rapid Rail Link 2009: [sp])

29. Transport routes in Pretoria indicate the interlink between the GRRL and Metrorail and proximity of other transport modes





INFORMATION EXTRACTED FROM:  
 METRO RAIL (MTR) PHASE 3 (P)  
 OPERATIONAL PLAN  
 28 APRIL 2008  
 DORLANDS  
 METRO RAIL (MTR) PHASE 3 (P)  
 OPERATIONAL PLAN  
 28 APRIL 2008

- GAUTRAIN
- METRO RAIL
- BUS RAPID TRANSIT
- UNIVERSITY CITY DISTRIBUTION BUS
- TAXI





### 3.5.1 Precinct transport routes

Since the station is not complete as yet, the only data available on transport routes in the area is from a study undertaken by Bombela, based on a traffic impact analysis. According to this study the station building will generate 3035 PCU (Passenger car units) or trips per day (Hatfield Station development Framework 2003:24). The current road network in Hatfield would be grid locked by this influx of traffic. A new one-way system and a programme of road upgrading has recently been implemented by COTMM to accommodate these estimated values.

Bus, taxi and vehicular traffic will follow a basic route as indicated in figure 31, entering the parking garage from Grosvenor or Duncan Rd (Bombela CJV 2007:[sp]).

There is provision for “kiss and ride” or drop-off bays in the basement, where motor vehicles and taxi’s may halt to off load passengers.

### 3.5.2 Pedestrian movement

Currently, pedestrian movement occurs mainly in a north-south direction to and from Hatfield and Hartbeesspruit station. This movement will not be impeded by the new development. The east-west link between the Gautrain station and Hartbeesspruit and Rissik station will be improved and celebrated in the Gautrain station precinct development plan (Hatfield Station development Framework 2003:25).

Figure 32 indicates the predicted pedestrian and bicycle movement and emphasises the important **nodes** around the station. The **Grosvenor/Arcadia St intersection** is an especially important node in the pedestrian movement patterns and is the focus of the study site (Bombela CJV 2007:[sp]).

It is very important, in this plan, that pedestrian movement be easy and safe. Thus, the extension of Grosvenor road over the railway, which is located below ground level, provides an opportunity to create a pedestrian friendly zone along Grosvenor St, linking Hatfield, the station as well as reestablishing a link between the two green open spaces along Schoeman (Springbok Park) and Burnett (green open space and bowls club).

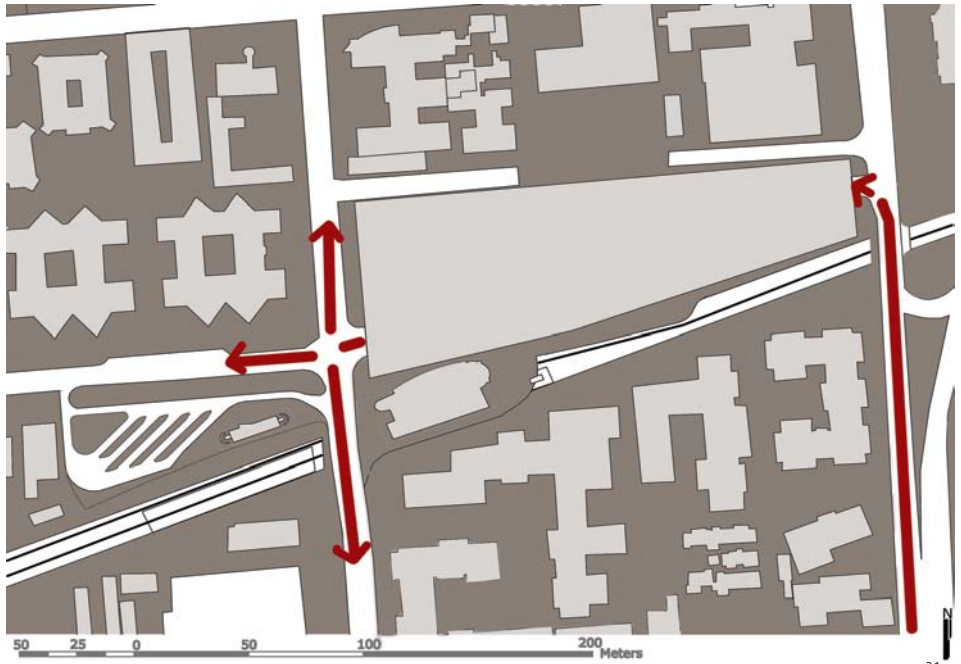
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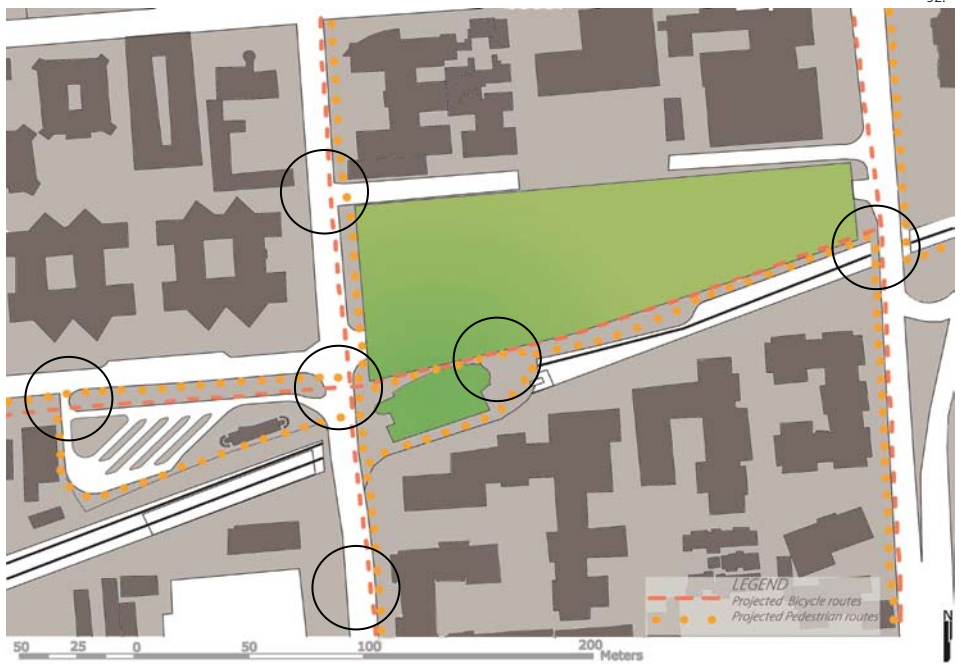
30. Pedestrians and cyclists in Duncan Rd.

31. Proposed bus routes (Bombela CJV 2007:[sp])

32. Proposed pedestrian (orange) and bicycle (red) routes. Important nodes indicated by the circles (Bombela CJV 2007:[sp])



31.



32.



### 3.5.3 Land use

According to a density study undertaken by Bombela the land use in the station precinct is mainly **office**, followed by **residential** and only 7% **retail** (Hatfield Station development Framework 2003:11). Their proposal includes providing a higher density residential component to support the station and ameliorate the seasonal nature of occupation in Hatfield due to the high number of student tenants.

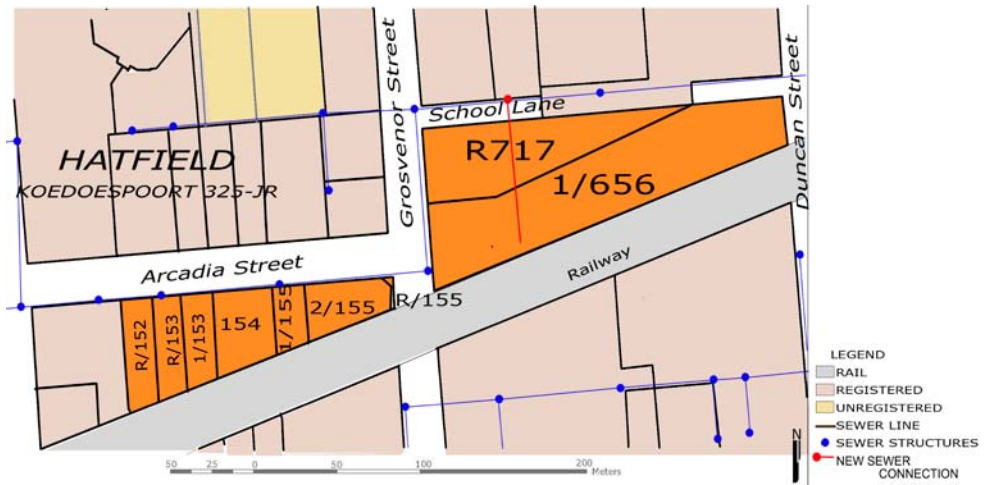
The station site itself is covered by the provisions of the Gautrain Transport Infrastructure Act (GTIA). This legislation sets guidelines for the Gautrain development including land proclamation and expropriation and construction for the rail reserve (route) and stations. According to the agreement with Bombela the Gauteng Provincial Government would be part subsidising the running costs of the GRRL for the first seven years of operation (Steer 2009). After 15 years of operation the stations, reserves and associated sites would be expropriated by the GPG.

At present it is still zoned as vacant /residential 3 . After expropriation any stations not previously zoned for railway land use will automatically be zoned as such (Steer 2009:[sp]).

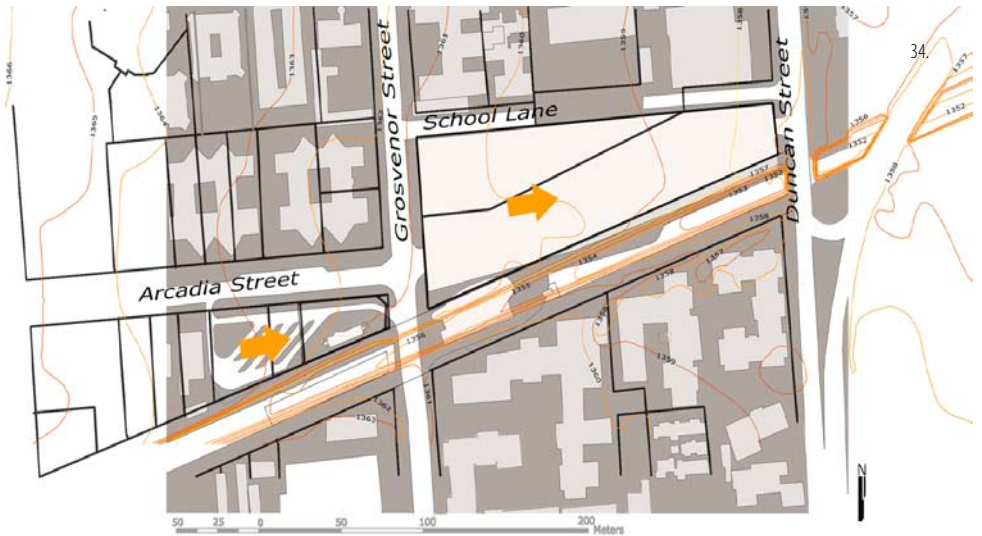
Currently the preparation of food is not allowed on Gautrain stations. However, designs for kiosks for coffee, snacks, papers, etc., had been proposed by the project architects, Gautrain Architects Joint Venture (GAJV). The decision on these had been postponed to future date when the GRRL stations had been completed and usage figures would be more certain.

33. Hatfield site erven, land use and municipal sewer connection

34. Contours on figure ground background (1m interval contours)  
(Gautrain Rapid Rail Link 2009: [sp])



33.



35. Informal trade at Hartbeesspruit Metrorail station.
36. Newspaper sellers at the corner of Duncan and Schoeman streets
37. Dwelling house converted to offices
38. High density residential development in Schoeman street, within 100m of the station
39. Multi-storey office park opposite Hatfield GRRL station in Grosvenor st.
40. Motor dealership on the corner of Duncan and Schoeman streets
41. Example of Transvaal School of architecture in the old Hatfield Primary School (1916)
42. Grosvenor St.
43. Duncan Rd.

### 3.5.4 Building typology / visual character

The building typology of the precinct is mainly multi storey offices blocks (fig. 39), motor showrooms (fig. 40, 41), single dwelling to offices conversions (fig. 37) and a few high density residential buildings (fig. 38). The red brick Hatfield Primary School (1916) on the corner of Duncan and Schoeman streets (fig. 41), now used as motor showroom offices, is an example of the early Transvaal School of Architecture.

**Streets** are mostly treed with wide concrete pavements and have a largely residential feel (fig. 42). The busier streets (fig. 43, Duncan Rd.) are vehicular in character and largely deserted by pedestrians. Currently, the only **daytime users** in the station precinct are informal vendors at Hartbeesspruit SARCC station (fig. 35), newspaper vendors at intersections during morning and afternoon rush hours (fig. 36) and informal cardboard collectors.



35.



36.



39.



41.

40.



42.

37.



38.



43.



### 3.5.5 Climatic factors

Tshwane receives only medium amounts of rain and is fairly wind still. Nevertheless, consideration must be given to some screening from north western and south eastern winter **winds**.

Due to the site location in the shade of the parking garage, the proposed site would not be exposed to a lot of direct **sunlight**.

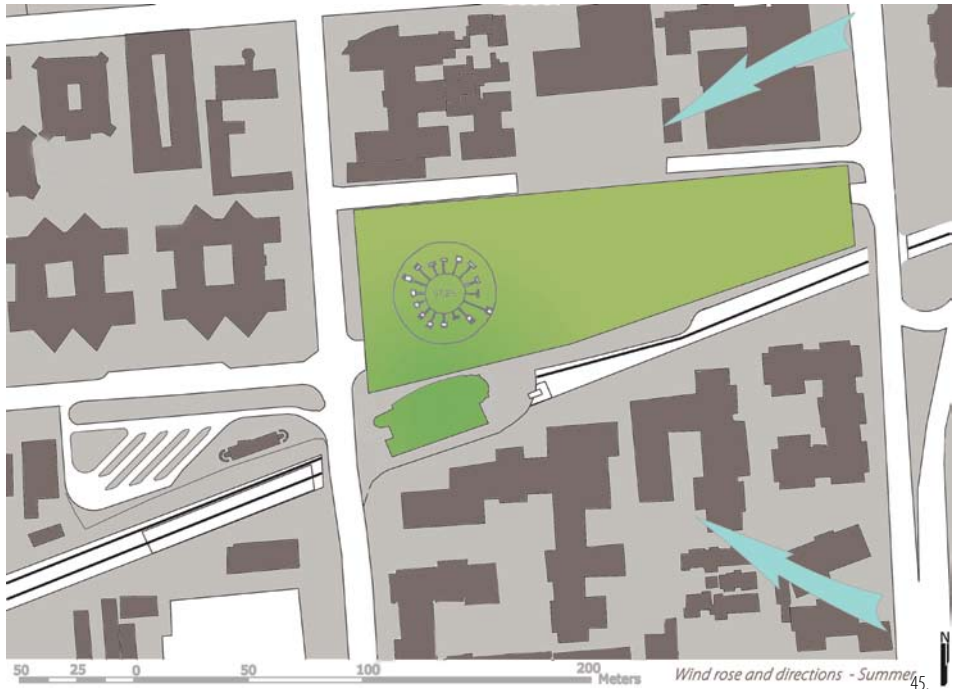
44.

Jan	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave
Maximum average monthly temperature (°c)	28,6	28	27	24,1	21,9	19,1	19,6	22,2	25,5	26,6	27,1	28	24,81
Minimum average monthly temperature (°c)	17,4	17,2	16	12,2	7,8	4,5	4,5	7,6	11,7	14,2	15,7	16,8	12,13
Average monthly amplitude (K)	11,2	10,8	11	11,9	14,1	14,6	15,1	14,6	13,8	12,4	11,4	11,2	12,68
Average monthly relative humidity (%)	58,0	59,5	60,0	59,5	55,0	53,0	50,0	46,0	45,0	49,5	54,0	56,5	53,83
Average monthly rainfall (mm)	136	75	82	51	13	7	3	6	22	71	98	110	56,17
Rham 72	74	76	78	76	75	71	64	61	64	68	70	75	70,75
Rhpm 44	45	44	41	34	31	29	28	29	35	40	43	44	36,92

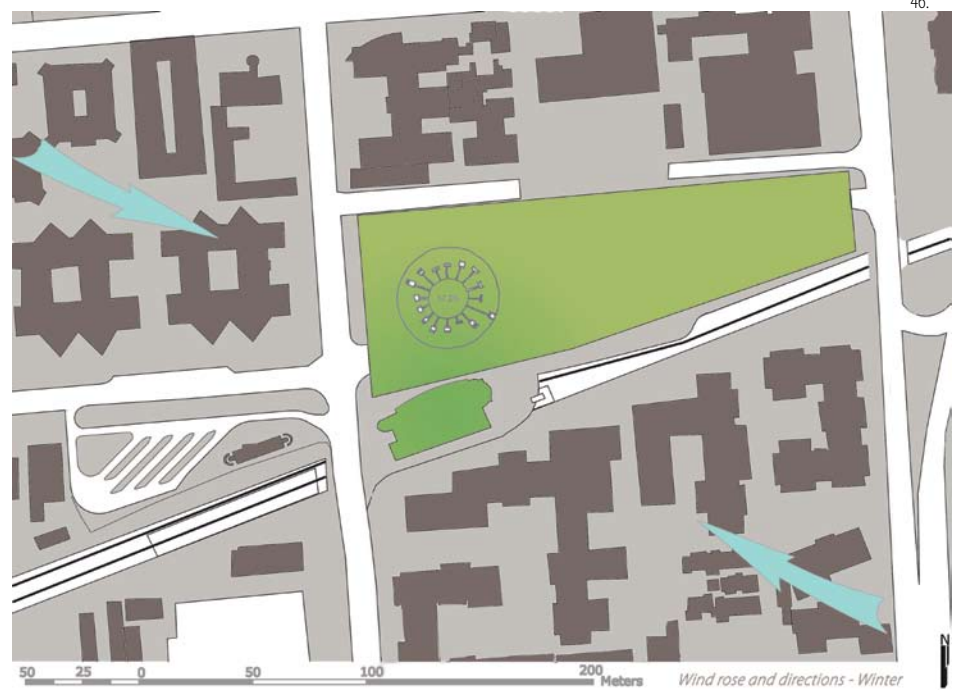
44. Climatic data for Pretoria (Holm 1996: 70)

45. Summer wind directions (Holm 1996: 72)

46. Winter wind directions (Holm 1996: 72)

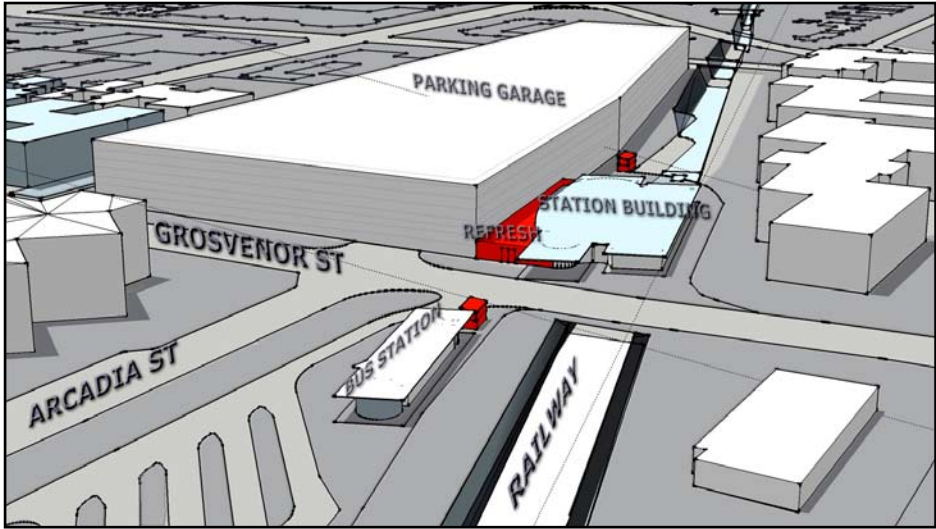


45.



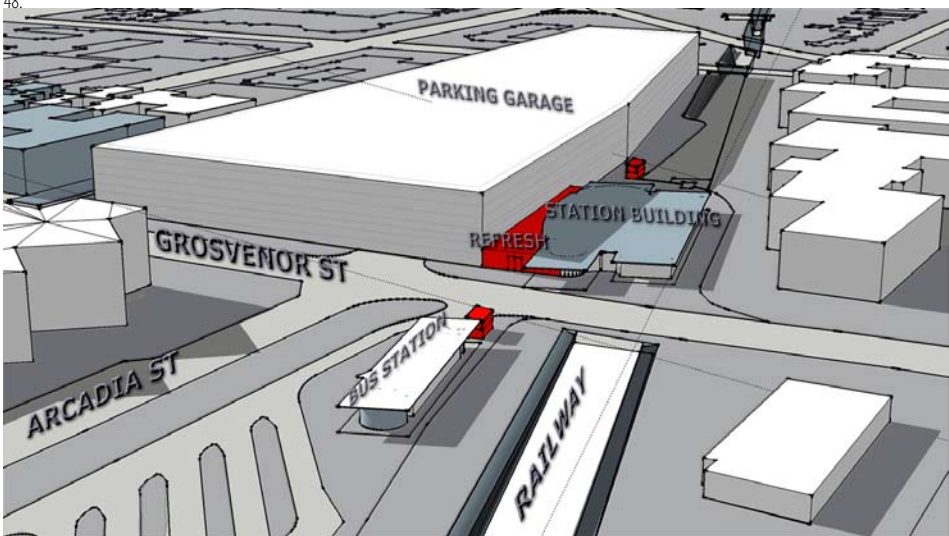
46.





47.

48.



- 47. Summer sun angles on site (Holm 1996: 70)
- 48. Winter sun angles on site (Holm 1996: 72)
- 49. Possible noise & air pollution sources from the parking garage and trains

### 3.5.6 Auditory amenity

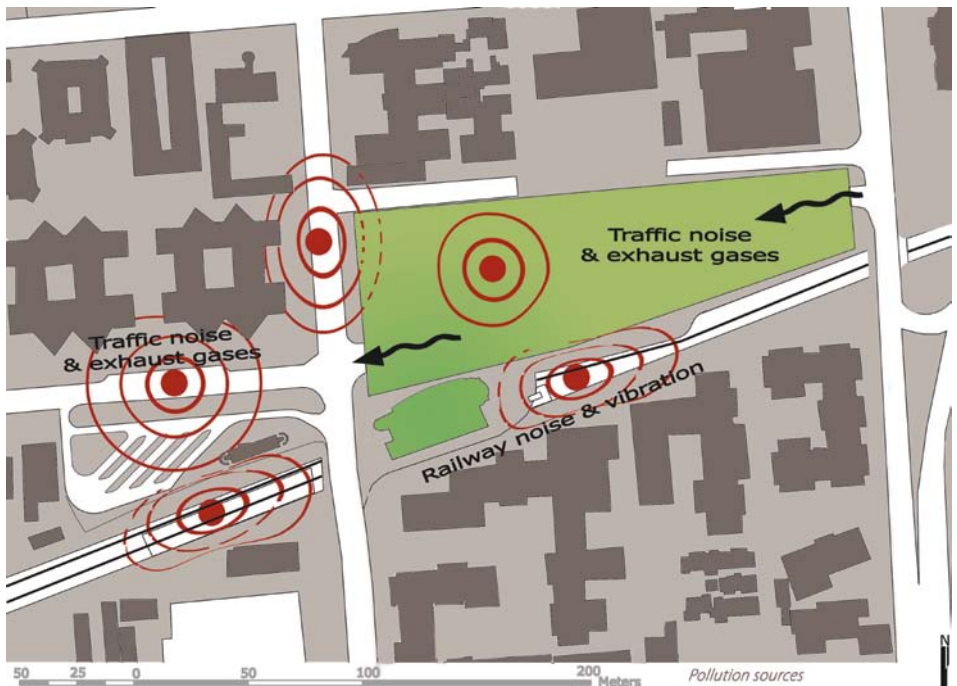
Noise pollution could impact the station from the parking garage as well as the railway line. The effect is reduced by the glazed walkway and two door sets between the ground floor parking garage and station unpaid concourse. The impact of noise from the railway is ameliorated by not having high speed through trains and the railway being located in a cutting 6 meters below ground level.

Air pollution from airborne dust and exhaust gases from increased rail and vehicular traffic is a possibility. However, at present it is impossible to quantify the impact this would have on the environmental health of the area.

### 3.6 Summary

The analysis of the Gautrain system identity has revealed the **Acacia tree** to be the most important concept. An extensive range of finishes and details had been produced. It is suggested that any new interven-

49.





tion in the station environment not slavishly follow the GSI. The GSI should act as a framework or set of guidelines to **orientate** the designer, rather than a set of authoritarian rules. Any new intervention in the station spaces should be visible as something new to set it **apart** from the original build. That being said, new interventions should continue the common thread from the GSI, something to **connect** it to the station context.

Since the acacia tree is such a major part of the GSI, it would seem that this would be a suitable concept to **appropriate** and **reinterpret** in the *re:refresh\** system. Working with the idea of the station (or kiosks for example) as an embodiment of the "treeness" and the idea of the acacia as **meeting** and **trading** place would provide the golden thread connecting the original station with the new refreshment and retail designs.

In terms of functional aspects of the *re:refresh\** the conclusion had been that, in addition to the primary function, five basic **activities** mostly occur at train stations:

EAT

SHOP

PAUSE

ACCESS INFO

ABLUTION

The ablution facilities are already provided at all Gautrain stations. The remainder of the functions would be included in the *re:refresh\** strategy (Chapter 5)

The designs for use inside the stations are not influenced by the physical site context as much as if it were an exterior, new building.

The pedestrian and vehicular **nodes** at the station are important indicators of where the best location with the most significance and foot traffic would be for kiosks. In the Hatfield scenario this would be inside the station unpaid concourse (giving access to non-ticket holders and the public as well), at the northern, north eastern and north western entrances to the station.

Of greater importance than the surrounding physical site characteristics is the **GSI**, the look and feel and details and finishes associated with the GRRL. Station design, ceiling height, wall and floor finishes (grey and cream terrazzo with soft mocha and cream and variegated grey gloss ceramic wall tiles) would also be important informers of the *re:refresh\** design.

An important point from the management position is the **public-private** contract. As mentioned in Chapter 2, Bombela part owns and finances and operates the GRRL for the first fifteen years since commission of the system. The Gauteng Provincial Government is part **subsidising** the GRRL for the first seven years of operation. After fifteen years the stations are to be **expropriated** by the GPG. At that time the land use would, if not already zoned as such, be changed to *railway use* by the GPG.