FIFA 2010 WORLD CUP

Transport Technical Report

Part B

South Africa

July 2003
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1. GAUTENG

1.1 General Transport Review

Gauteng Province has the largest population concentration in South Africa and represents the economic heart of the country, as well as the nation’s main air, road and rail transport hub. Gauteng offers an extensive and comprehensive transport network to facilitate the region’s daily movement requirements.

The Gauteng Provincial Government’s Department of Transport and Public Works, (Gautrans) administers transport in Gauteng. Within the Province there are six metropolitan councils or districts which are responsible for the local operation of transport. These are:

- City of Johannesburg
- Ekhurhuleni Metropolitan Municipality
- City of Tshwane
- Sedibeng District Municipality
- Metsweding District Municipality
- West Rand District Municipality

Each of these authorities has responsibilities in terms of maintaining and providing road infrastructure and supporting public transport services. The transport system caters to the travel needs of approximately 9 million people, a population which is growing at approximately 2.5% per annum.

1.2 Transport Mode Split

The modal split within the province, recorded in 2002, is shown in Table 1.1.

<table>
<thead>
<tr>
<th>MODE</th>
<th>% of daily commuter trips</th>
<th>Number of daily commuter trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus</td>
<td>9%</td>
<td>430 100</td>
</tr>
<tr>
<td>Rail</td>
<td>30%</td>
<td>1 406 400</td>
</tr>
<tr>
<td>Minibus-Taxi</td>
<td>31%</td>
<td>1 471 100</td>
</tr>
<tr>
<td>Car/Motorcycle</td>
<td>30%</td>
<td>1 437 194</td>
</tr>
<tr>
<td>Total Trips</td>
<td>100%</td>
<td>4 744 794</td>
</tr>
</tbody>
</table>

Source (Status Quo of Transport 2002)
1.3 Airports

The major airport within Gauteng is Johannesburg International Airport (JIA). This facility is used by 65 airlines, providing services for international, (both long haul and within Southern Africa), and national services. In 2001/2002 the airport handled 12 million passengers, 5 million of who were domestic travellers. The Airport handled some 152 000 air traffic movements in this period. JIA is located 20 kilometres from the Johannesburg CBD and 46 kilometres from central Pretoria.

JIA is complemented by a series of smaller airports and fields, with varying capabilities in terms of the craft that can be accommodated. The most notable of these are: Springs / Nigel, which has been granted a license for international status and is expected to be operational this year; Grand Central Airport, located in Midrand; Lanseria in Krugersdorp and Wonderboom Airport in Northern Pretoria. The volume of air traffic movements at three of these airports is:

- Lanseria Airport 73 000 per annum
- Grand Central Airport 25 000 per annum
- Wonderboom Airport 23 000 per annum.

1.4 Road Network

1.4.1 National Links

Gauteng is the major road hub of South Africa with road connections to every major national destination as well as neighbouring countries. The following national freeways connect Gauteng with other World Cup cities and other main destinations:

<table>
<thead>
<tr>
<th>Route Number</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 1 North</td>
<td>JHB – Pretoria – Polokwane</td>
</tr>
<tr>
<td>N 1 South</td>
<td>JHB – Bloemfontein – Cape Town</td>
</tr>
<tr>
<td>N 2</td>
<td>Cape Town – Durban (Garden Route)</td>
</tr>
<tr>
<td>N 3</td>
<td>JHB – Durban</td>
</tr>
<tr>
<td>N 4 West</td>
<td>Pretoria – Rustenburg</td>
</tr>
<tr>
<td>N 4 East</td>
<td>Pretoria – Nelspruit</td>
</tr>
<tr>
<td>N 17</td>
<td>JHB – Springs</td>
</tr>
<tr>
<td>N 12</td>
<td>Witbank – JHB – Kimberley – George</td>
</tr>
</tbody>
</table>
1.4.2 Gauteng Network

The Gauteng road network is characterised by its highly developed system of freeways and arterial routes of more than 1700 km in length. These routes are indicated in Table 1.3. The Road network of the province can be sub-divided into different classes, based on a national classification.

<table>
<thead>
<tr>
<th>Road Class</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway</td>
<td>591 km</td>
</tr>
<tr>
<td>Dual Carriageway</td>
<td>8 607 km</td>
</tr>
<tr>
<td>Single Carriage Paved</td>
<td>18 495 km</td>
</tr>
<tr>
<td>Gravel</td>
<td>6 407 km</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>34 100 km</td>
</tr>
</tbody>
</table>

1.4.3 Patterns of Demand for Road Space

The greatest concentration of road traffic movements within Gauteng is:

- into the Greater Johannesburg area from the north, specifically Midrand to Sandton, and into the CBD and the East Rand area, from Benoni and Brakpan
- into Greater Pretoria from Johannesburg Midrand to the south, and from Hammanskraal and Soshanguve to the north.

Traffic volumes on these roads are high in the morning and evening peak periods. For example, the N1 between Pretoria and Johannesburg carries 120 000 vehicles per day at present.

1.4.4 Congestion Management Strategy

In recognition of the increasing levels of congestion within Gauteng Province, Gautrans has embarked on an ambitious project aimed at managing congestion. The Congestion Management Strategy is focussed at addressing the factors that influence congestion, namely:

- Road infrastructure provision
- Public transport, particularly the promotion of convenient, reliable, comfortable and safe, services.
- Land-use and town planning to support public transport use.
- Operational issues, e.g. free and unrestricted use of road space, response time to incidents and timely information on roadway conditions to drivers.
To address these issues, the following means of managing and alleviating these problems are being formulated:

- Land-use measures and policies.
- Supply side tools including Intelligent Transport Systems.
- Transport demand management through road pricing and other means.

A task team has been appointed to identify short term, medium term and long term actions.

### 1.4.5 Road Infrastructure Upgrade Programs

An Integrated Transport Plan (ITP) has been prepared for each of the 15 municipalities in Gauteng. These are updated annually. The main area of focus of the ITP includes:

- Provide all-weather surfacing on the estimated 913 kilometers of gravel roads in residential settlements.
- Rehabilitate key roads currently in a poor condition.
- Implement all-day, frequent and cost-effective transport services in core transport corridors and nodes.
- Implement routeing plans to support the spatial structure and customer travel needs.
- Invest in improved transport information services.
- Invest in dedicated public transport infrastructure and inter-modal connections at key nodes.
- Upgrade infrastructure and traffic management systems to improve access to key economic nodes, mobility between key nodes and reduce overall travel times, with a focus on prioritising public transport.

The estimated budget for the implementation of these plans is in excess of R 250 million.

Beyond these plans, Gautrans is motivating for a series of toll roads within the province. The motivation behind the proposals relates to the desire to fund road network improvements without impacting upon public resources. The plans require provincial legislation and the establishment of a Toll Road Management team within Gautrans. The most important of these planned toll roads is the PWV9, which runs between Johannesburg and Pretoria to the west of the present N1 freeway. The estimated cost of the PWV9 is R920 million (1996 prices) and the complete toll road programme is projected to cost R7, 115 million (1996 prices).

### 1.4.6 Major Road Routes for the FIFA 2010 World Cup

The major routes of importance with regard to the FIFA 2010 World Cup event are those which link the centers of activity to one another. The centers of activity are:

- The Johannesburg Central Business District (CBD) – which houses Ellis Park stadium, one of the hotel clusters and many of the tourist attractions.
- Nasrec - the location of the FNB stadium and the location for the International Broadcasting Centre (IBC).
- Sandton - the location of the major hotel cluster and home to several training and medical facilities.
- Midrand - another potential location for the IBC and a minor hotel cluster.
- Pretoria CBD - location of the major hotel cluster, many tourist attractions; and Hatfield - the location of Securicor Park Stadium.
These main locations and routes are schematically represented in *Figures 1.4 and 1.5*. It is anticipated that the routes used for the FIFA 2010 World Cup traffic will be mainly national and provincial roads, with the local road networks only used for access to specific locations.

1.5 Public Transport

1.5.1 Overview

Within the Greater Johannesburg Area there are 1,000 bus routes operated by the Metropolitan Bus Company, Metrobus, 40%, and Putco, 60%. The minibus-taxi industry serves some 180 terminals within Greater Johannesburg, providing services on 600 routes.

The main corridors, which cater for about 90% of passengers and vehicles, are by area:

- North Barry Hertzog, Jan Smuts and Oxford Road
- North-East Louis Botha Road
- East Main Reef Road and the M2
- South Rosettenville Road
- South-West Heidelberg Road
- West from Soweto via Soweto Highway or via the N1, Golden Highway and Old Potchefstroom Road, Baragwanath
- North-West Ontdekkers Road from Roodepoort

Within Greater Pretoria, there are 330 routes operated by four bus companies, under three concerns, the municipal bus company, North-West Star and Putco. There are 72 minibus-taxi associations operating within Pretoria itself. In total, over 390 routes are served per day by these associations.

Wits Metrorail and Pretoria Metrorail provide rail services within Gauteng, with 220 active stations and halts on 1,500 kilometres of track. Services operate across the province with 4,861 trains running per day, using 605 first class and 1,703 third class carriages. The carrying capacity within Gauteng is 310,000 passengers.

Rail services accumulate 54,790 kilometres and carry 850,000 passengers per day. The major focal points of rail travel are found at Johannesburg CBD, Germiston, Pretoria and Soweto.

The busiest route sections have the following characteristics:

- There is ample spare capacity outside of the peak period, as only two line sections out of 80 within Gauteng (Houtheuwel - Midway and vice versa) are utilising more than 60% of their capacity during the 24-hour day. Within the peak hour, six sections (Germiston - Alberton, Springs – Nigel, Houtheuwel - Midway and vice versa) are operating at 100% or greater of notional line capacity, with a further six sections utilising more than 70% of notional line capacity.

- Patronage on the rail system increased from 178 million passengers per annum to 257 million passengers per annum in the period 1992/93 to 1997/98. This growth followed a period of decline in rail patronage, from 330 million passengers per annum in 1986/87 to the figure of 178 million for 1992/93. The busiest stations in terms of passenger numbers per day are Johannesburg with 100,000, Germiston – 99,000, Mabopane – 76,000, New Canada – 40,000 and Daveyton – 36,000.
Figure 1.4: Main FIFA 2010 World Cup locations and routes in Johannesburg

Figure 1.5: Main FIFA 2010 World Cup locations and routes in Pretoria
1.5.2 Gautrain Rapid Rail

The Gautrain is the rapid rail link, planned between Pretoria, Johannesburg and Johannesburg International Airport. Approximately 80 km of modern state-of-the-art railway lines will link Johannesburg and Tshwane. The Gautrain is planned to provide an efficient rail service, equivalent to international standards and is one of the Gauteng Province’s Blue IQ initiatives to invest in economic infrastructure development in the areas of tourism, technology and transport. All sections of the Gautrain are scheduled to be in operation by the end of 2009.

This rapid rail link will have ten stations from Hatfield in Tshwane to Park Station in Johannesburg. The purpose of the Gautrain is to provide a public transport alternative that can successfully compete with the private motorcar, relieving road congestion.

A general passenger train service, including commuter services and a dedicated purpose-designed Airport Service suited for the specific needs of domestic and international air passengers, will be operated as part of the System. The general passenger services will cover the service to be operated between Johannesburg and Tshwane, and between Sandton and Rhodesfield Stations. The Airport Service will be operated on a dedicated link between Sandton and Johannesburg International Airport (JIA). The trains should be able to travel at sufficiently high speeds, to meet the required travel time between Johannesburg and Tshwane of not more than 38 minutes and not more than 15 minutes between Sandton and Johannesburg International Airport (JIA). Trains will operate for more than 15 hours a day, with reliability, punctuality and predictability being key features of the service. Adequate passenger safety and security will be a key feature of the System.

As the Province is committed to an integrated transportation network, a well-integrated network of public transport services, comprising all elements of modal integration such as integrated road-based and rail-based routes, modal transfer facilities, and also providing for seamless transfer between public transport modes and services is planned. A door-to-door service by means of a dedicated feeder service, as well as appropriate facilities to stop and drop off train passengers will be provided at the stations. The Gautrain will also cater for passenger integration with existing rail services through over platform or station interchanges only. To facilitate this, three of the Gautrain stations have been located at or adjacent to existing rail commuter stations operated under the auspices of the South African Rail Commuter Corporation (SARCC). The passengers will be able to transfer with ease between the existing public transport services and the Gautrain.

The Gautrain will offer three important services to people in Gauteng during the FIFA 2010 World Cup. Firstly, it will provide a safe, comfortable, fast and reliable service for spectators to the games. Secondly, it will provide an acceptable form of public transport to tourists visiting and travelling in and between Pretoria and Johannesburg during the FIFA 2010 World Cup period. Thirdly, the link between Sandton and the JIA will provide an important and convenient transport service for visitors arriving by international or domestic flights.
During the FIFA 2010 World Cup games, the Gautrain will allow for the efficient movement of large volumes of people. Looking at the three major stadiums in Gauteng and their location relative to the Gautrain Stations, the following are the likely ways in which spectators using the Gautrain, would be able to reach the stadiums:

- **Ellispark** – A special shuttle service could be operated between the stadium and Johannesburg Park Station. The proposed Johannesburg Station is located above the existing long distance coach terminus of Park Station, in the Johannesburg CBD. The shuttle service could also serve spectators arriving by coach from other parts of South Africa, e.g. Cape Town.

- **Securicor Park** – The Hatfield Gautrain Station will be within close walking distance from the stadium.

- **FNB Stadium** – There is an existing rail commuter station at Nasrec, which means that a direct rail link between the Gautrain Park Station and the Nasrec Station exists and people can transfer with ease between the Gautrain and the existing commuter rail. However at this stage the level of service provided by the existing rail network is probably not acceptable, but it is envisaged that the rail service would be improved and that it would become a feasible option for providing transport for a large number of people.

Spectators would be able to make use of four modes of travel to access the stations:

- Those in the vicinity of the stations could walk to the station;

- Making use of their own / hired transport to travel to and park at the stations (park & ride) where safe parking and appropriate facilities will be provided;

- Making use of existing public transport services;

- Using public transport feeder and distribution services operating on dedicated routes.

### 1.5.3 Rail Extensions and Stations

Since 1981, there has been no significant investment in rail line or rolling stock infrastructure. However, some significant rail station upgrades and commercial developments have been undertaken by Intersite in close partnership with Metrorail.

*Figure 1.4* shows the modernised Park Station complex in Johannesburg, which integrates the new suburban, and main line rail concourses with long-distance bus and minibus-taxi terminals, and the large split-level indoor mall. The development significantly enhances the profile of public transport within Johannesburg.

There are over 100 planned developments to introduce additional infrastructure and upgrade existing rail facilities. The most relevant of these focus on the Naledi - New Canada line section and the Ennerdale - Eldorado Park - Nasrec rail section.
1.6 Key Issues relating to the Effective Hosting of the FIFA 2010 World Cup

1.6.1 Greater Johannesburg

First National Bank Stadium / Soccer City (FNB) - Facility Characteristics

- Located at Nasrec on the eastern edge of Soweto.
- Seating capacity of 90,000.
- Home stadiums to Orlando Pirates Football Club.
- Football Venue for the African Cup Final in 1997.

- Shares the same location of the National Exhibition Centre.

Main Access Routes

The FNB stadium is situated at the Nasrec site (see Figure 1.10 for location plan), with access from Nasrec Road, one of Johannesburg’s arterial routes. Nasrec Road has a full intersection with the N1 national freeway at Uncle Charlie’s Interchange, which allows for connections to the hotel clusters of Sandton, Rosebank, Midrand and Pretoria.

At present, accessing the CBD and Soweto, directly from the stadium involves using Nasrec Road to access Main Reef Road.
(R41) for the CBD, Rifle Range Road (R38) for southern Johannesburg and Rand Show Road (R79) or Old Potchefstroom Road (R68) for Soweto.

The FNB Stadium can also be reached by rail, using the Nasrec rail station, which is located within five minutes walk from the stadium. The station lies on its own branch line off the main Soweto-Johannesburg line. Rail will be heavily promoted as a main mode during the FIFA 2010 World Cup.

Presently, the majority of spectator arrivals are by minibus-taxis. The most important of these routes are those which traverse the Soweto highway between Johannesburg CBD and Soweto. The operational plan will allow for minibus-taxi vehicles to gain access to the road network close to the pedestrian entrances of the stadium. In addition, a section of parking will be allocated for the exclusive use of minibus-taxis.

As the FNB Stadium is located away from the city centre, it has ample parking facilities. There are 3,000 spaces within the stadium grounds, with a further 6,000 spaces in the greater Nasrec grounds, which abut the FNB site. Beyond the immediate FNB/Nasrec site there is vacant land capable of accommodating up to 28,000 more vehicles.
Figure 1.10: Access to the FNB Stadium

Figure 1.11: Aerial view of the Ellis Park and Johannesburg Stadiums
For the duration of the FIFA 2010 World Cup, the 3 000 spaces within the stadium fence line would be allocated for use by FIFA, the media and other priority groups. The access points for these areas will have high levels of security to ensure that only the properly accredited vehicles gain entry. In addition to the separate parking, FIFA officials and other VIPs (including match officials and players) will gain access to the environs of the FNB via a specially constructed link road. This link road will connect Crownwood Road with Nasrec Road. This will allow the priority group vehicles to take a distinct route from that of the general traffic when arriving at the stadium.

This facility would cost between R 3m and R 10m, depending on the nature of the underlying soils, the carriageway constructed and the structure employed to cross the water course.

The other parking locations are accessed from the Rand Show Road/Nasrec Road. These roads link to the N1, M1, and into Soweto. Therefore, these will be used as the main corridor for car access. A security cordon will ensure that vehicles are directed into public parking areas. Shuttle buses will be employed between these parking areas and the Stadium.

A high number of trained staff will be employed to manage vehicle movements and enforce the access privileges.

1.6.2 Ellis Park Precinct

**Ellis Park – Facility Characteristics:**

- Located in central Johannesburg.
- Seating capacity 62 000.

**Transport / Stadium Access Issues**

The Ellis Park Precinct is located in New Doornfontein, central Johannesburg. The Ellis Park Stadium shares the Greater Johannesburg Sports Precinct with the Johannesburg Stadium and the Standard Bank Arena. The access road network for the Stadium is well established. These roads are typically narrow and are poorly suited to carrying high volumes of traffic.

Strategic road links to the Ellis Park area connect to the M2 motorway, which provides links to the M1 serving Sandton and Rosebank to the west, and Germiston and the Eastern By-pass to the east. Additionally, there are several provincial distributors serving the immediate area around Ellis Park which allow access to the CBD and other central Johannesburg areas.

**Operational Plan**

On big match days a detailed operational plan is put in place to manage high levels of traffic. During the Rugby Union World Cup, and other major events, access to the precinct is tightly controlled, with a series of cordons restricting private cars. These cordons promote the use of public transport to the Precinct, which is provided mainly by a dedicated park-and-ride system. This
system was utilised by up to 10,000 spectators for each match during the Rugby World Cup, with similar volumes being recorded at other prominent fixtures.

The Precinct is served by the Ellis Park railway station, which lies at the southern end of the site. Rail, minibus-taxi and private cars have accounted for approximately three-quarters of arrivals at the Precinct for recently staged events.

**Figure 1.12: Access and parking plan for the Ellis Park Precinct**

Figure 1.13: Loftus Versfeld Stadium in Pretoria

Figure 1.14: Loftus Versfeld Access & Parking

PARK & RIDE SITES
1. PRETORIA GIRLS HIGH SCHOOL
2. PRETORIA BOYS HIGH SCHOOL
3. AFRIKAANS BOYS SCHOOL
4. AFRIKAANS GIRLS SCHOOL
1.6.3 Securicor Park (Loftus Versveld)

**Facility Characteristics:**

- Located in Hatfield, Eastern Pretoria.
- Seating capacity 52,000.
- Rugby World Cup 1995 venue.
- Home to the Blue Bulls RFU team.

**Main Access Routes**

The Securicor Park stadium is situated on the eastern side of Pretoria, see Figure 1.14 for location plan, adjacent to the University of Pretoria with access from the M6 Lynwood Road which links directly to the Danie Joubert Freeway on the east and the Pretoria CBD to the west. In addition, the stadium is also accessible from the south via the Ben Schoeman Highway (N1) which links to Midrand and Johannesburg.

The Gautrain Rapid Rail, linking Johannesburg with Pretoria, will have a station located within close walking distance of the stadium. This will provide a convenient alternative mode of transport for those spectators living or staying in hotels to the south of Pretoria.

**Operational Plan**

On big match days a park-and-ride network has been developed to offer an alternative means of access to event attendees.

At present the stadium parking facilities cater for 3,000 vehicles. This provision is complemented by the use of four schools that are in close proximity to the stadium for the park-and-ride service. The combined capacity of these schools is in the order of 10,000 vehicles.

The stadium is also adjacent to the Securicor Park station, which creates an important public transport access linkage.

1.6.4 Rainbow Junction Stadium

**Facility Characteristics:**

- Proposed new stadium to be built.
- Located in Pretoria north (Sinoville).
- Seating for between 45,000 and more.

The site upon which the stadium will be constructed is centrally located with regard to major routes. Zambezi drive leads to the N1, which covers Polokwane to the north and the Johannesburg region to the south. The N4 stretches from east to west with Rustenburg westwards and Witbank to the east. All of these national routes are easily accessible through well-developed secondary roads like Voortrekker Road, and Zambezi Drive.

Parking facilities, in and around the stadium, would be able to accommodate 5,000 vehicles. The Pretoria North railway station is also within walking distance from the stadium. Wonderboom airport is located approximately 7 km from the stadium. It can accommodate planes as large as a King Air.

**Operational Plan**

The operational planning for access to the stadium will be considered once plans for the structure have been completed.
1.7 Main Means of Transport to the Stadiums

It is anticipated that coaches from the Johannesburg / Pretoria area, as well as the Gautrain Rapid Rail link, will carry the majority of international and a large proportion of regional visitors. Other regional visitors will use private cars to access the local areas. There will be park-and-ride systems in operation.

The other major vehicular access mode that will dominate for the local spectators are local rail services and minibus-taxis. These will be managed to ensure efficient drop-off before the match and collections after the match.

Again, the transport system will rely on trained drivers using high-quality vehicles, similar to those of the 2002 World Summit on Sustainable Development, to match the prestigious nature of the tournament.

The proximity of the stadiums to residential areas suggests that walking will be an important mode. Careful consideration will be given to ensuring that there are safe routes for pedestrians accessing the venues.
2. **RUSTENBURG, NORTH - WEST PROVINCE**

![Figure 2.1: Rustenburg, North-West Province - Location Map](image)

### 2.1 Commentary on Transport Situation

The area of the North-West Province considered in this report borders on Gauteng. The venue city of Rustenburg is located approximately 120 kilometres, or two hours’ driving, to the west of Pretoria/Johannesburg on the N4 National Route. (See Figure 2.1 which indicates Rustenburg in its local setting).

The Pilansberg International Airport serves the Rustenburg area and is located 40 km from the city centre. In 1999 the runway underwent a R25 million upgrade to accommodate the largest aircraft on international routes. The airport has daily scheduled flights from and to Johannesburg, Cape Town and Durban.

Rustenburg is served by rail with a direct connection to Johannesburg, and in addition, the Greyhound bus network also serves the town, linking it to Johannesburg, Zeerust and Gaborone (Botswana). Travel times between the important destinations have been estimated and are given in *Table 2.1*. 
2.2 Road Network Review

The venue city of Rustenburg is well connected to major cities such as Pretoria and Johannesburg via the N4, which has recently been upgraded as part of the National Toll Roads Strategy. An alternative route, the R24, also extends from the Johannesburg/Pretoria area to Rustenburg.

The new Royal Bafokeng football stadium is situated approximately 16 kilometres from central Rustenburg. Roads to the stadium are high-quality arterial roads that will not require any major upgrading to accommodate additional traffic resulting from the FIFA 2010 World Cup.

The road network in the city itself is free of major congestion, with a well-organised system of one-way streets and linked traffic signals.
2.3 **Public Transport Review**

Rustenburg is served by a bus fleet of 160 vehicles which carry up to 175,000 passengers per day. The minibus-taxi industry consists of two associations and provides services connecting the city with the rural hinterland, the township of Phokeng and other settlements in the area.

2.4 **Key Transport Issues relating to Rustenburg**

2.4.1 **Stadium Characteristics**

The Royal Bafokeng Stadium was constructed and completed in 1998 and has seating capacity for ±40,000 persons. There is adequate provision for parking of cars and coaches adjacent to the Stadium.

2.4.2 **Access Characteristics**

Arterial roads of a high standard provide quick and convenient access to the Stadium for both the private car, bus and minibus-taxi modes. The Stadium is located approximately 16 km or 15 minutes travel time from the city centre. Also, it is located adjacent to the community of Phokeng.

---

Short-distance trips to the Stadium will be catered for by local minibus-taxi services. Selected vehicles will be allocated to provide a dedicated FIFA 2010 World Cup shuttle service.

As many of the spectators are expected to come from Pretoria/Johannesburg, a high volume of coaches is expected at the stadium.

2.4.3 **Current ability to host capacity crowds**

On match days, an effective traffic management plan is implemented on the access routes to the Stadium and its immediate surrounds. The Stadium has a good record of successfully hosting international football matches with capacity crowds.
3. BLOEMFONTEIN

3.1 Commentary on Transport situation

3.1.1 Overview

This section gives an overview of the transport situation in Bloemfontein (now called Manguang, but referred to in this overview as Bloemfontein) with regard to its capacity to accommodate a major football event. It confirms the commitment of the Bloemfontein Metropolitan Transport Authority (BLOEMET) to provide transport facilities of a high standard that stimulate economic growth and attract major events such as the 1995 Rugby World Cup and the 1996 African Nations Soccer Tournament.

Information on the transport situation within Bloemfontein has predominantly been obtained from the BLOEMET Transport Plan with the permission of the Director of Transport Planning.

Bloemfontein is located in the central interior of South Africa. The Free State province is bordered by Gauteng and North-West to the north, KwaZulu Natal and Lesotho to the east, Northern Cape to the west, and Western and Eastern Cape to the south. Bloemfontein is approximately 400km (or four hours driving) to the south of Johannesburg.

The Bloemfontein Airport serves the Free State Province. It is located approximately 20 kilometres to the east of the city. Air services connect Bloemfontein to all the other regions of South Africa.

Figure 3.1: Free State stadium parking and access - CBD In background
Bloemfontein is well served with National Road Routes from the north, south, east and west, and thus is well connected to other major cities such as Cape Town, Johannesburg and Durban. Bloemfontein has a well-developed arterial road network. Its public transport system consists of two bus companies, minibus-taxis and Metered-taxi services. Bloemfontein is also served by intercity rail and bus connections.

Apart from a Transport Plan, BLOEMET has also developed a Road Master Plan, which serves as a strategic planning input to the Transport Plan. The Road Master Plan is in essence a complete Roads Needs Study for the whole of the greater Bloemfontein metropolitan area, based on future growth scenarios and expected land uses, over a strategic time span of 20 years. The Plan is the output of a calibrated land use/transportation model, which is currently being used by the BLOEMET Planning Division.

The Road Master Plan is essentially event-driven rather than being based on a specific time frame. It basically describes what roads need to be built if specific developments materialise.

### 3.1.2 Modal Split

The 1995 modal split is given for the traditional black and white residential areas separately, as an overall average figure for Bloemfontein will reflect a very distorted image of the reality. The modal split is as follows:

<table>
<thead>
<tr>
<th>Residential</th>
<th>Percentage split</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private car</td>
<td>Bus</td>
</tr>
<tr>
<td>Traditionally white</td>
<td>90</td>
<td>6</td>
</tr>
<tr>
<td>Traditionally black</td>
<td>8</td>
<td>38</td>
</tr>
</tbody>
</table>

As can be seen from Table 3.1 there is no Metropolitan Rail Transport System in Bloemfontein. It is expected that an increase in private car use and a decrease in public transport use will occur before 2006.

### 3.1.3 Demand Patterns

The major transport demands exist on the arterials giving access to the Central Business District (CBD). Some of these demands will be reduced through the provision of a supplementary ring road system, which has been proposed as part of the Road Master Plan.

### 3.2 Road Network Review

Bloemfontein is well served with National Routes from the north, south, east and west, and thus is well connected to other major cities such as Cape Town, Johannesburg and Durban. The primary road network of Bloemfontein is shown in the orientation map (Figure 3.2).
Figure 3.2: Orientation map
3.2.1 Metropolitan Road Network

The extent of the present freeway network for metropolitan Bloemfontein is shown in the orientation map (Figure 3.1) and consists of the N1 Western Bypass. There are six interchanges along this route providing access to the different districts of Bloemfontein.

Bloemfontein has a well-developed arterial road network. The main stadium is located adjacent to the CBD and is well connected to the arterial road network.

3.2.2 Travel Times by Road

Average travel times have been conservatively determined, assuming an average travel speed of 45 km/h, and are shown on the travel time contours map in Figure 3.3.

3.2.3 Capacity Upgrade Prioritisation

The BLOEMET planning division has a comprehensive analysis and prioritisation programme in place to ensure that implementation plans are timeously approved.

The following roads have been recently, or will be shortly, upgraded:
Falck Road has been upgraded and it is not foreseen that capacity problems will be experienced before 2010.

President Avenue has already been upgraded and will provide sufficient capacity until 2010.

Church Street has been upgraded.

Currently the following capacity problems still need to be addressed:

- Plans for the improvement of Parfitt Avenue have been prepared and construction will be finished before 2010.
- A study is currently being undertaken for the upgrading of Markgraaff Street.

3.2.4 Traffic Management Systems, Incident Detection and Response

In the BLOEMET Area, there are at present more than 130 sets of traffic signals in operation, of which more than 80% are interlinked into a number of local systems. Traffic signals settings on the busier arterials were derived after a comprehensive modelling exercise to achieve better progression of signal timing.

Apart from the local municipal traffic, all other emergency services are involved in Incident Management on the major interurban routes through Bloemfontein. The Bloemfontein Control Centre staff have undergone extensive training in centralised communication for the management and effective clearance of incident scenes. The average response time to an incident in Bloemfontein is five minutes.

3.3 Public Transport Review

The Bloemfontein Public Transport System consists of two bus companies, minibus-taxis and metered-taxi services. Approximately 14% of all public transport users travel by bus, while 86% travel by minibus-taxi.

Comparative information on the public transport providers is given in Table 3.2.

<table>
<thead>
<tr>
<th>Service Area</th>
<th>IBL</th>
<th>Metered-taxi Services</th>
<th>Minibus-Taxi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bloemfontein</td>
<td>Bloemfontein</td>
<td>Bloemfontein</td>
</tr>
<tr>
<td></td>
<td>Botshabelo</td>
<td>Botshabelo</td>
<td>Thaba Nchu Long Distance</td>
</tr>
<tr>
<td></td>
<td>Thaba Nchu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleet Sizes</td>
<td>160</td>
<td>100 four-seaters</td>
<td>1 500</td>
</tr>
<tr>
<td>Service Type</td>
<td>Scheduled &amp; Request</td>
<td>Request</td>
<td>Request on fixed routes</td>
</tr>
</tbody>
</table>

Interstate Bus Lines (IBL) is the largest bus operator on subsidised routes in Bloemfontein. Bloemfontein City Transport (BCT) caters for communities, students, scholars, shoppers and social trips. It falls under the Director of Protection Services.

3.3.1 Metered-taxi Services

Metered-taxi services, are available on telephonic request in Bloemfontein. These minibus-taxi operators have indicated that they would be able to provide special shuttle services for media groups and spectators on a prior arrangement basis.
3.3.2 Minibus-Taxis

The minibus-taxi industry has grown rapidly over the last ten years and is currently in the process of being transformed from an informal to a formally regulated industry. The owners of the more than 1 500 minibus-taxi’s in Bloemfontein have organised themselves into five minibus-taxi associations, which are mainly rank-based.

3.3.3 Public Transport Infrastructure

The Bloemfontein Municipality provides public transport infrastructure, but the private bus company IBL has also contributed from its own resources to provide terminals of good standard. The main bus stops and ranks are provided with sheltered waiting areas. The minibus-taxi ranks are not all provided with sheltered waiting areas, and some stops along the route have not been formally demarcated. The Bloemfontein Municipality, together with the Free State Provincial Government, plans to upgrade the minibus-taxi terminals within the next few years.

3.4 Key Transport Issues relating to Bloemfontein

3.4.1 Key Access Routes to the Stadium

The Free State Stadium is located within walking distance of the CBD and city centre hotels (Figure 3.4). It is attractively sited within a park, offering very pleasant and convenient access. Rapid road access is provided from the N1 and all surrounding main arterials.

The probable travel time and distances between some important destinations during a weekend match day is shown in Table 3.3.
Table 3.3: Travel Time Matrix

| Free State Stadium | | | | | | | Bloemfontein Airport |
|-------------------|-------------|-------------|-------------|-------------|-------------|
|                   | 15 min      | 10 km       | 5 min       | 1 km        | 15 min      | City Centre (inc. pub. trans. & hotels) |
|                   | min         | km          | min         | km          | min         | min         |
|                   | 6 mi        | 6 mi        | 1 mi        | 1 mi        | 6 mi        | 6 mi        |
|                   | 1 km        | 1 km        | 10 km       | 1 km        | 1 km        | 1 km        |

Key: min = minutes, km = kilometres, mi = miles

A major traffic impact study has been performed for the greater Brandwag area, including the stadium and the major hotels, and recommendations for the required upgrading to accommodate morning peak hour traffic have been accepted. Some of this upgrading has already been done while other construction is still taking place. Bloemfontein does normally experience a high morning traffic peak period and it is expected that the peak as a result of a big day match could be accommodated with only minor changes to the adjacent road network.

3.4.2 Types of Transport

- Public transport routes
  All public and private operators will operate on routes from Heidedal and Mangaung on the eastern side of the city, as well as Dr Belcher Road and Falck Road. Special provision will be made for an on- and off-loading facility for minibus-taxis to drop off and pick up spectators.

- Private cars
  Parking on big match days is normally arranged on sports fields of the schools and sports clubs in the vicinity of the stadium. Co-operation in this regard has always been received.

- Pedestrians
  A substantial proportion of the crowds attending a football match normally arrive as pedestrians. The Traffic Department of the Bloemfontein Municipality assists with pedestrians’ movements by giving priority from public transport terminals, and from parking areas to and from the stadium.

3.4.3 Current Ability to Host Capacity Crowds

The stadium has hosted many international rugby matches with capacity crowds of ±45 000. Management of traffic, parking and spectators has been handled effectively and efficiently.

3.4.4 Upgrade Requirements to Host Event

The Bloemfontein Municipality would be honoured to host some of FIFA 2010 World Cup football matches and they would assist in providing the facility upgradings required, provided the assistance is requested timeously. The current required upgrading is being done for a 10-year planning horizon, which includes the year 2010. The present layout of each one of the following streets are being considered for possible upgrading: Markgraaff Street, Parfitt Avenue and Dr Belcher Street. These upgradings would improve metropolitan accessibility to the main Bloemfontein stadium.
4. POLOKWANE

4.1 Commentary on the Transport Situation

4.1.1 Overview

The background to the transport situation in Pietersburg/Polokwane is discussed in this overview. The City Council has given its commitment to act as one of the host cities for the FIFA 2010 World Cup and confirms that the city has the capability and the capacity to host such an event. This is further supported by the City’s decision to construct a multi-million Rand Polokwane Sports Stadium, capable of accommodating 50,000 spectators, which was officially opened in 2002.

Polokwane (formerly Pietersburg) is the capital of the Northern Province and is situated on the N1 National Route between Gauteng and the Beit Bridge border post, approximately 300 km (2½ hours drive) from Gauteng.

The Polokwane metropolitan area has a population of 1.1 million people with another 4.0 million people living in the immediate vicinity.

The city is also approximately two hours’ drive by road from the Kruger National Park, but also boasts over 50 provincial and private game reserves, all within 1 - 2 hours drive from the Polokwane. These natural attributes are expected to boost the Northern Province’s share of the South African tourist market from the current 5.5% to over 11% in the next decade.

4.1.2 Modal Split

The most recent estimates of the modal split were done in 1995 and indicate that 57% of people transported in the Polokwane area make use of public transport.

The modal splits have remained relatively stable during this period, however, it is also evident that over the eight year period the private transport sector has slowly grown to the detriment of public transport.
4.2 Road Network Review

4.2.1 Road Network

Polokwane is well served with a National Route running north-south, and thus is well connected to other major cities such as Johannesburg, Pretoria and Zimbabwe. Polokwane has a well-developed arterial road network which is largely free from congestion.

4.2.2 Travel Times by Road

The Polokwane Stadium is located two kilometres from the CBD centre and is strategically located next to the Pietersburg Railway Station.

4.2.3 Network Capacity Upgrade Prioritisation

The City Council identified a number of major upgrades to the road and traffic infrastructure on its five-year implementation programme. This will provide for some of the required upgrading which would assist in the accommodation of FIFA 2010 World Cup traffic. A number of improvements to the arterial network have been identified for upgrading, of which the following will make a distinctive impact on the overall mobility on the network:

- Traffic signal improvements at:
  - Landros Maré/19th Avenue
  - Bok/Dahl.

- Geometric improvements at:
  - Road over rail bridge at Nirvana/Westenburg
  - N1 upgrading
  - Landros Maré upgrading
  - Hans van Rensburg widening
  - Biccard extension
  - Nelson Mandela Avenue extension
  - Schoeman extension.

4.2.4 Traffic Incident Management

The organisations, which are involved in the City’s Incident Management process include:

- Traffic departments from the local and provincial authorities
- Fire departments from the local and provincial authorities
- Ambulance Services, both local government and private
- South African Police Service
- South African National Road Agency Ltd (SANRAL)
- Disaster Management
- Road Maintenance Departments.

Polokwane has two major hospitals, the Pietersburg Provincial Hospital and the Pietersburg Private Hospital situated within its boundaries. The former being 2 km, and the latter, approximately 4 km from the Polokwane Stadium. Two additional new clinics are planned for the area.

4.3 Public Transport Review

4.3.1 Train Services

The Polokwane railway station is located on the northern boundary of the CBD and in close proximity to the football stadium. Polokwane is served by long distance rail services between Johannesburg/Pretoria
and Zimbabwe. There is no commuter rail system in operation in the Polokwane area.

4.3.2 Bus Operations

There are four major bus operators, both privately and publicly owned, serving the Polokwane area. All operators provide scheduled services during peak and non-peak periods, covering nine main corridors. More than 13 million passenger trips are made monthly on 320 buses, involving approximately 1 350 daily trips. The bus operators are affiliated to the South African Bus Operators Association (SABOA).

4.3.3 Tourist Services

Numerous tour busses supplement the regular commuter bus operations. With Pietersburg/Polokwane being the hub of the Northern Province, most tourist busses travel through this area to the various tourist destinations.

4.3.4 Airport Services

Rented vehicles are available for hire at the Gateway International Airport and Pietersburg Municipal Airport through various national car hire companies.

4.3.5 Minibus-Taxis

The minibus-taxi provides a public transport service along scheduled bus routes, but more importantly on routes that are not economically viable, or not physically accessible, for bus operators. There are currently 41 minibus-taxi associations operating in the Polokwane area with an estimated 1 640 minibus-taxis transporting commuters on a daily basis. Official minibus-taxi ranks are provided at strategic locations throughout the Polokwane area.

An informal long distance minibus-taxi service is also in place covering all routes to Polokwane, specifically via the National Route N1 from Gauteng.

4.4 Key Transport Issues relating to the Effective Hosting of the FIFA 2010 World Cup in Polokwane

4.4.1 Key Access Routes to the Stadium

The following routes provide excellent road accessibility to the new sport stadium:

- The N1 from Gauteng via Warmbaths and Potgietersrus (south)
- The N11 via the N1 (at Potgietersrus) from Mpumalanga via Middelburg and Groblersdal (south-east)
- The R81 from Giyani (north-east)
- The N1 from Zimbabwe via Beit Bridge and Louis Trichardt (north)
- The N11 via the R567 from Botswana via the Groblersbrug border post (west)
- The R71 from Phalaborwa via Tzaneen (east).

The new stadium is also located next to the main rail station. Thus rail access will also be good from Johannesburg, Pretoria and elsewhere. Also, luxury rail services are likely to be in operation serving the venue.
### Table 4.1: Travel Time Matrix

<table>
<thead>
<tr>
<th></th>
<th>POLOKWANE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stadium</strong></td>
<td>10 min</td>
<td>Gateway</td>
<td>5 min</td>
<td>CBD / Station</td>
</tr>
<tr>
<td></td>
<td>7 km 4 mi</td>
<td>Internat. Airport</td>
<td>10 min 10 min</td>
<td>4 km 6 mi</td>
</tr>
<tr>
<td></td>
<td>4 km 2 mi</td>
<td></td>
<td>10 min 15 min</td>
<td>9 km 6 mi</td>
</tr>
<tr>
<td></td>
<td>10 min</td>
<td></td>
<td>10 min 5 min</td>
<td>9 km 6 mi</td>
</tr>
<tr>
<td></td>
<td>5 min</td>
<td></td>
<td>10 min 50 min</td>
<td>4 km 2 mi</td>
</tr>
<tr>
<td></td>
<td>75 km 47 mi</td>
<td></td>
<td>55 min 77 km 48 mi</td>
<td>75 km 47 mi</td>
</tr>
</tbody>
</table>

**Travel Time / Travel Distance**

Key: min = minutes
km = kilometres
mi = miles

#### 4.4.2 Upgrades of Existing Facilities and Equipment

Other facilities or improved facilities which directly or indirectly have an impact on the hosting of mega events, which are in the pipe line in the next five years are the following:

- The new Polokwane Stadium will be capable of accommodating 60 000 spectators.
- The design allows for the effective management of traffic, parking and spectators.
- Parking will be accommodated outside of the stadium grounds.
5. ORKNEY

5.1 General Transport Network and Town Information

Orkney lies on the banks of the Vaal River, approximately 180km from Johannesburg in the North West Province. Orkney is a mining town with a laid-back ambience. Tourist attractions include a bird sanctuary, Orkney Vaal recreation area, Vaal Reef Gold Mine (tours through the largest gold mine in South Africa can be arranged on request).

The town is located close to the N12 freeway, which serves as a main link between Gauteng and the Kimberley in the Northern Province. Major regional towns like Klerksdorp and Potchefstroom are less than a 30-minute drive from Orkney. The town has a well-maintained road network, and vehicle access and mobility is excellent.

The town of Orkney is within easy reach of the Klerksdorp Airport, which can accommodate the majority of charter aircraft. The airport is located approximately 13km away from Orkney. Rail links between Orkney and Johannesburg are well established.

5.2 The stadium at Orkney

5.2.1 Stadium Characteristics

The Oppenheimer Stadium, owned by the Anglo American Corporation, is located close to the town centre. The stadium has a seating capacity of 26 000 and is currently being upgraded and refurbished to accommodate extra seating and sport facilities.

5.2.2 Transport / Stadium Access Issues

Accessibility to the stadium is excellent from both Orkney town centre as well as Klerksdorp. The current minibus-taxi service in both Orkney and Klerksdorp will provide a public transport service to the majority for people attending scheduled matches. Due to the location of the stadium on the periphery of Orkney, with limited development in the direct vicinity, ample parking will be available at the venue.

Table 5.1: Travel Time Matrix

<table>
<thead>
<tr>
<th></th>
<th>Potchefstroom</th>
<th>Klerksdorp</th>
<th>Orkney Stadium</th>
<th>Orkney Town Centre</th>
<th>Orkney Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>56 min</td>
<td>47 km 29 mi</td>
<td>1 hr 14 min</td>
<td>23 min</td>
<td>82 km 39 mi 15 km 9 mi 1 hr 8 min 15 min 8 min</td>
<td>64 km 40 mi 17 km 11 mi 13 km 8 mi 7 km 5 mi 1 hr 20 min 1 hr 34 min 1 hr 38 min 1 hr 43 min 1 hr 49 min</td>
</tr>
<tr>
<td>47 km 29 mi</td>
<td>1 hr 14 min</td>
<td>23 min</td>
<td>82 km 39 mi 15 km 9 mi 1 hr 8 min 15 min 8 min</td>
<td>64 km 40 mi 17 km 11 mi 13 km 8 mi 7 km 5 mi 1 hr 20 min 1 hr 34 min 1 hr 38 min 1 hr 43 min 1 hr 49 min</td>
<td></td>
</tr>
<tr>
<td>1 hr 14 min</td>
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<td>82 km 39 mi 15 km 9 mi 1 hr 8 min 15 min 8 min</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>82 km 39 mi 15 km 9 mi</td>
<td>1 hr 8 min</td>
<td>15 min</td>
<td>64 km 40 mi 17 km 11 mi 13 km 8 mi 7 km 5 mi 1 hr 20 min 1 hr 34 min 1 hr 38 min 1 hr 43 min 1 hr 49 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 hr 8 min 15 min 8 min</td>
<td>8 min</td>
<td>64 km 40 mi 17 km 11 mi 13 km 8 mi 7 km 5 mi 1 hr 20 min 1 hr 34 min 1 hr 38 min 1 hr 43 min 1 hr 49 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64 km 40 mi 17 km 11 mi</td>
<td>1 hr 17 min</td>
<td>25 min</td>
<td>67 km 42 mi 110 km 69 mi 115 km 72 mi 120 km 75 mi 127 km 79 mi</td>
<td>1 hr 49 min</td>
<td></td>
</tr>
<tr>
<td>1 hr 17 min</td>
<td>25 min</td>
<td>67 km 42 mi 110 km 69 mi 115 km 72 mi 120 km 75 mi 127 km 79 mi</td>
<td>1 hr 49 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67 km 42 mi</td>
<td>1 hr 20 min</td>
<td>1 hr 34 min 1 hr 38 min 1 hr 43 min 1 hr 49 min</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: min = minutes
km = kilometres
mi = miles
Figure 5.1: Orkney Orientation Map
6. DURBAN

6.1 Commentary on the Transport situation

This audit provides background information required as part of the FIFA 2010 World Cup Bid and has largely been extracted from recent Metropolitan Transport planning investigations and reports from the Transport Authority, Ethekwini Municipality.

The Ethekwini Metropolitan Transport Advisory Board has embarked on an Integrated Transport Plan (ITP) for the Durban Metropolitan Area in line with the Transport White Paper. In addition, Durban has been chosen as a flagship project to test the recommendations of the definitive Moving South Africa Study. In this regard, the public transport system in Durban is currently undergoing a fundamental restructuring programme (FRP), which will culminate in August 2006. The overall objective is to improve accessibility through a focus on public transport improvements.

Accessibility and indeed public transport is crucial to the successful hosting of the FIFA 2010 World Cup. The aim would be to develop an integrated plan that not only caters for the peak transport demands of an
event of this magnitude but also caters for the specific needs of VIPs, officials and various emergency and security functions.

However, the critical factor for success from a transportation and city perspective, is that the transport plan must be compatible with the medium to long-term transport planning for the City in order to be cost-effective and sustainable.

6.1.1 Modal Split

The most recent estimates of modal split indicate that almost 57% of all trips in the peak periods are made by public transport. The trend of rising car ownership in the stable communities is offset by population growth in the low-income groups, both by natural background growth and urban migration. Hence the public transport market share is likely to remain stable in the medium to long term.

Bus and Rail travel has experienced a marginal reduction in demand while the minibus-taxi mode demand has increased markedly.

The PM peak hour modal split of all people leaving the CBD compared with the proportion of vehicles used to carry these people is given in Table 6.1. The efficient use of road space by public transport is clearly evident, as is the predominance of private car for travel during this period.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Proportion of outbound person trips (PM peak hour)</th>
<th>Proportion of outbound vehicles PM peak hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>48%</td>
<td>91%</td>
</tr>
<tr>
<td>Minibus-taxi</td>
<td>27%</td>
<td>5%</td>
</tr>
<tr>
<td>Bus</td>
<td>24%</td>
<td>3%</td>
</tr>
<tr>
<td>Heavy Vehicle</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 6.2: Durban’s Golden Mile hotel belt with the Harbour in the background
6.2 Road Network Review

6.2.1 Description of the Existing Road Network

ABSA Stadium is very well located in relation to the existing metropolitan road network, with high-capacity roads surrounding the Stadium. The Metropolitan road network in turn is well connected to the National Route network, offering excellent access to the Stadium.

6.2.2 Typical Travel Times by Road

Both the N2 and the N3 are used as main access points to the Stadium. The most critical sections of the N2 and N3 are between the EB Cloete Interchange and the Umgeni River to the north and Westville Interchange to the west respectively. Some 3,900 to 7,500 veh/h are carried on these sections during the afternoon peak period.

6.2.3 Network Capacity Analysis and Upgrade Prioritisation

The Durban Inner City Interim Transport Plan indicated generally that there is some spare capacity in the peak direction on the road network in the northern sector. In the western and southern sectors, there is plenty of spare capacity in the PM peak hour and off-peak eastbound and northbound directions respectively. These are the directions from which FIFA 2010 World Cup match day traffic will approach the Stadium.

A SWOT analysis of transportation in Durban was undertaken for the Integrated Transport Plan for the Durban North and South Central Local Councils study. This analysis gives a good indication of the status of the road network and traffic conditions in and around Durban. Based on the analysis, the following road network deficiencies have been identified on the road network surrounding the Stadium and are either being upgraded at this stage or earmarked for future upgrading:

Current / Recent Road Upgrading
- The Northern Freeway and the section of NMR Avenue between Walter Gilbert Road and Goble Road.

Future / Planned Road Upgrading
- Planned Intersection improvements at:
  - Northern Freeway and Argyle Road intersection
  - Umgeni Road and Argyle Road intersection
  - Umgeni Road and Goble Road intersection.
- Further afield, additional capacity is required on the N2 between the four-level interchange and the Umgeni River split diamond interchange.

6.2.4 Traffic Management Systems in Place, Incident Detection and Response

The Municipality has a sophisticated and highly effective incident management system in place, which involves all emergency service departments, including the:
- Durban Metro Police
- Fire Department
- Ambulance Service.

This system is complemented by the incident management system on the national route network and includes the section of
National Route 3 between the Durban International Airport and the City.

6.3 Public Transport Review

Rail, bus and minibus-taxi services operate in Durban, offering a full range of services, from virtually door-to-door services provided by the 16-seater minibus-taxis to high-capacity line-haul services of the conventional buses and commuter rail.

Midi-buses are used for a high frequency, high accessibility shuttle service within the Durban CBD.

In addition to the above, a significant number of metered-taxis operate throughout the Municipal Area.

Table 6.2: Travel Time Matrix

<table>
<thead>
<tr>
<th>Kings Park</th>
<th>Durban Internat. Airport</th>
<th>CBD (inc. public transport)</th>
<th>Accommodation: (Beachfront)</th>
<th>Accommodation: (Umhlanga)</th>
<th>Accommodation: (Amanzimtoti)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 min</td>
<td>20 km 12 mi</td>
<td>10 min 20 min</td>
<td>10 min 25 min</td>
<td>15 min 40 min</td>
<td>30 min 19 mi</td>
</tr>
<tr>
<td>10 min 18 km 11 mi</td>
<td>3 km 2 mi</td>
<td>3 km 2 mi 19 km 12 mi 1 km 1 mi</td>
<td>12 km 7 mi 33 km 20 mi 15 km 9 mi 16 km 10 mi</td>
<td>30 km 19 km 10 km 6 mi 27 km 17 mi 28 km 17 mi 42 km 28 mi</td>
<td></td>
</tr>
</tbody>
</table>
6.3.1 Metropolitan Commuter Rail Network

Durban Metrorail, a business unit of Transnet is currently providing the commuter rail service under contract to the South African Rail Commuter Co-Operation (SARCC).

The existing commuter rail network provides extensive coverage within the Metropolitan Area and generally services most of the major residential and industrial nodes. The network consists of 600 km of electrified track, with 99 stations providing access along eight separate lines as follows:

- Umlazi Line
- KwaMashu Line
- North Coast Line
- Crossmoor
- Wests
- Kelso
- Pinetown
- Cato Ridge.

The latest figures showed that the current fleet consists of 68 sets of twelve coaches each. Metrorail is currently engaged in an extensive investigation into fleet-upgrading options as part of its internal improvement strategy. Planned extensions to the network include the proposed Inanda Rail Line and the Malagazi line in the south.

In addition, Intersite is currently engaged in a comprehensive programme of upgrading 17 stations along the Umlazi – KwaMashu Trajectory at an estimated capital cost of some R85 million.

The major elements of the station upgrades include:

- Effective access-control options
- Improvements to commuter convenience facilities
- Security improvements
- Improved ticket-selling facilities
- Facilities for the mobility disadvantaged at identified stations.

6.3.2 Train Services

At present some 360 train trips are provided in the Metropolitan Area, which cater for approximately 490 000 person trips, on a typical weekday.

The main Durban Station Complex is 2.0 km south of the Stadium. The Umlazi – KwaMashu Trajectory dominates the rail service in Durban and currently caters for some 80% of all weekday patronage.

Commuter rail line utilisation and capacity are shown in Table 6.3 and Figure 6.4. There is significant spare capacity on the existing network in terms of scheduled train services. Up to 15 additional train trips can be rescheduled in the peak hour in certain cases, which equates to 30 000 additional passenger trips. Additional services can easily be provided to meet the needs FIFA 2010 World Cup spectators.
### 6.3.3 Conventional Bus Operations

In addition to three publicly owned companies, approximately 200 private operators provide bus services in Durban. The former own about 1 000 buses in total while the private operators own some 900 buses in total.

Buses still carry a substantial modal share of all public transport trips in Durban and serve virtually all areas in the Metropolitan Area.
Due to buses’ ability to respond to changing commuter patterns, they have managed to retain significant modal share, unlike rail which has been declining in importance.

Of particular relevance to the FIFA 2010 World Cup Bid is the Mynah Bus Service, the single largest bus operation in Durban. The Mynah Bus Service is operated within the Durban CBD and immediate surrounds utilising 70 midi-buses each with a passenger capacity of 30 passengers (20 seated, 10 standing). The service is operated as a continuous shuttle service and provides a high-speed, high-access mode with frequencies of 5 to 10 minutes throughout the day.

Although Mynah’s market share in the CBD has been declining steadily over the years in the face of changing demographics and staff competition from minibus-taxis, the service remains popular, particularly in the affluent suburbs immediately west of Durban, and caters for some 15 000 trips on a typical weekday.

The Mynahs were a crucial component of the successful Rugby World Cup event, which was staged in South Africa in 1995. They were utilised as a continuous shuttle from park-and-ride facilities, accommodation venues in the CBD and from the Airport to the Stadium on match days. Five routes were operated, with 30 stops in total.

Typically between 14 and 18 buses were utilised and they carried in excess of 9 500 passengers over the five match days. Numerous tour and private hire buses supplement the regular commuter bus operations.

Durban Airport services consist mainly of midi-buses and private minibus-taxis, which provide a service between the Airport and numerous hotels along the Durban beachfront.

6.3.4 Bus Infrastructure

Buses generally follow the higher-order collectors and arterial routes, which are mostly all surfaced and in good condition. Absa Stadium is conveniently located adjacent to the Umgeni Road public transport corridor, which carries trips mainly from the north-western residential suburbs of Durban.

Bus stops are generally well provided along the route, with spacings varying from 400 m in residential areas and the CBD ends to over 2 km on line-haul sections.

Within the CBD, ranking space is accommodated mainly within the Warwick Avenue Triangle with smaller facilities in Soldiers Way, Pine Street and Lorne Street. The majority of these ranking points are surfaced and provided with commuter convenience facilities such as shelters, seating, ablutions and ticket-selling facilities.

6.3.5 Minibus-Taxis

The minibus-taxi industry caters for approximately 50% of all public transport trips in the Durban Metropolitan Area. Service coverage is largely similar to that of the bus network, although the smaller vehicle allows deeper penetration into the residential townships. Minibus-taxis largely provide a line-haul system often in direct competition with conventional buses, although there is significant intermodal activity between minibus-taxis and commuter rail.
On average, some 40% of all commuter rail passengers reach the stations via feeder minibus-taxi services.

Minibus-taxi ranks are scattered throughout the Durban CBD although there are significant concentrations within the Warwick Triangle and along Umgeni Road.

It is estimated that there are almost 7 000 minibus-taxis operating in the Durban Metropolitan Area. Some 4 700 vehicles are used for regular commuter services, 600 for long distance trips (i.e. + 30 km) while the remainder are utilised for residential feeder services.

6.3.6 Metered-taxis Services

The “metered” minibus-taxi is generally a passenger car-type vehicle with a seated capacity of 3-4 passenger plus one driver. More recently multi-purpose vehicles (MPVs) with seating capacities of 5-7 passengers are being utilised by certain operators.

The “metered” minibus-taxi operates from a pick-up point to a destination requested by the passenger where fare is recorded on a meter and generally increases with travel distance. Although this service is considered to be an important mode, it makes up a small part of the total public transport service in the Durban Metropolitan Area.

Within Durban, there are some 340 registered Metered-taxis operating from 40 designated ranks with a total of 140 bays throughout Durban. At present, 12 dedicated bays are provided at the Durban International Airport.

6.4 Key Transport Issues

6.4.1 Key Access Routes to Stadium

The ABSA Stadium with a seating capacity of 58 000 people, is the largest Stadium in the Province of KwaZulu-Natal and the obvious choice for a World Cup Soccer match in Durban. The Stadium is located within Durban’s major sporting and recreation precinct which extends from the Village Green in the north to the Umgeni River in the south and from the foreshore of the Indian Ocean in the east to Umgeni Road in the west.

In an international/national context, the Stadium is located within the City of Durban, which is the second-largest city in South Africa. Durban has an international airport as well as a smaller regional airport and is thus well connected both internationally from other countries in the world and nationally from other cities in South Africa via numerous air services. There are good transportation linkages between the Stadium and both Durban International Airport and Virginia Airport.

In a metropolitan context, the Stadium is situated on the northern fringe of Durban’s CBD and along the busy north-south transportation corridor between the CBD and the northern residential suburbs. The Stadium is virtually surrounded by residential suburbs to the north, south-west and west and the major east-west transportation corridor from the inland suburbs of the Durban Metropolitan Area culminates a few blocks to the south of the Stadium. The Stadium is well located, in close proximity to both the N2 east-west National Road and the N3 north-south National Road.
In a local context, the Stadium is situated between the CBD and expanding office parks immediately to the north, other sporting and recreation facilities immediately to the south and east, and the Umgeni Road industrial/commercial area immediately to the west. The major northsouth transportation corridor passes on both the east and west of the Stadium and major east-west metropolitan links roads pass within one or two blocks to the north and south of the Stadium.

Around the stadium, CBD and beachfront area where the majority of traveling is to take place, the travel times are generally fairly short at between 10 and 20 minutes.

Analysis of Public Transport Interchanges

All three public transport modes have their main commuter ranks in the Durban CBD. All of the ranks are within 3,5 km or within 60 minutes’ walking time of the Stadium.

Durban Station, which has the single largest commuter capacity, is located within 2.0 km or 20 minutes’ walking distance of the Stadium.

In addition to the above, the existing long distance laundry platforms within the Durban Marshalling Yards can be utilised as a temporary commuter rail station, while the extensive open fields to the south of the adjacent Kingsmead Soccer Stadium can serve as public transport ranking areas. The most logical route from the closest public transport interchanges to the Stadium is along NMR Avenue and Umgeni Road via Walter Gilbert Road.
Further, the Greater Kings Park Sports Complex is flanked by two full 18-hole golf courses, the Durban Country Club and the Windsor Golf course, although it is unlikely that these would be used as outdoor venues for large gatherings.

6.4.2 Review of Planned Upgrades

The following road network improvements have been recommended in the Durban Inner City Interim Transport Plan will increase the existing capacity on the road network surrounding the Stadium and will therefore improve the accessibility of the Stadium on a FIFA 2010 World Cup match day:

- The widening of the Western Freeway between the Jan Smuts Interchange and the Brickfield Interchange will provide more capacity from the N3 to the Stadium.
- The construction of the Northern Freeway/Argyle Road diamond interchange will significantly improve the accessibility of the Stadium as this was identified as one of the major network constraints in close proximity to the Stadium.
- The widening of North Coast Road to six lanes and the realignment of Inanda Road will substantially increase the capacity of these two routes which should divert traffic from the Northern Freeway and make more capacity available on this route.

Apart from the road network improvements recommended in the Interim Transport Plan, there are several development initiatives in the northern sector of the Metropolitan Area that will require road network improvements, which will improve the accessibility of the Stadium. These development projects include the La Mercy International Airport, the development of the greater Kings Park area into an international sporting venue and the newly built casino and entertainment complex on the Village Green site.

The implemented road network improvements that formed part of the casino development on the Village Green site included the following:

- The widening of Battery Beach Road to a four-lane single-carriageway road.
- Widening of NMR Avenue between Argyle Road and Athlone Drive.
- New interchange at Stanger Street / Argyle Road/Northern Freeway is planned for 2004 - 2006.

All of the above improvement measures have improved the accessibility to the Stadium through the provision of additional capacity, although it is acknowledged that the additional traffic generated by the casino may impact negatively on the accessibility of the Stadium, particularly as the peak daytime generation of a casino occurs at around 15:00 which could be close to the same time that a FIFA 2010 World Cup match may take place.

On the positive side, however, around 5 000 secure parking bays have been constructed at the casino, which is within walking distance of the Stadium. In addition, an extensive monorail system is planned to form part of the casino development which can easily be extended at reasonable cost.
from the casino over the Northern Freeway and NMR Avenue to a suitable station located at the Stadium. The monorail will provide a fairly high-capacity public transport service from the beachfront hotels.

6.4.3 Upgrade Requirements to Host a FIFA 2010 World Cup Match

It is likely that most of the planned upgrade projects described above will be implemented by 2010, which will significantly increase the accessibility of the Stadium and reduce congestion on the surrounding road network. However, even if these projects are not implemented, provided the match does not start at a time when event traffic is on the surrounding road network during the peak commuter period, no improvements to the surrounding road network will be required to accommodate the event-generated traffic. In additional to all public transport services there will be sufficient parking located within walking distance of the Stadium to accommodate the expected parking demand. These dedicated parking areas will be located as far away from the Stadium as possible to avoid a concentration of traffic immediately surrounding the Stadium.

6.5 Current strategy on Big Match Days

Discussions were held with Durban City Traffic Control Department, to review strategies employed during the 1995 Rugby World Cup and the 2003 Cricket World Cup, as well as for local big match days. The key difference has been that local big match days are patronised almost exclusively by local spectators using mainly private cars. The Rugby and Cricket World Cup, as with all international sporting events, attracted a significant proportion of international spectators and a large media contingent, both local and foreign. Although private motor vehicles were still the predominant mode, in the latter instance the proportion of “private hire” public transport was substantially greater.

Certain areas around the Kingsmead Stadium were reserved for the media contingent and major tour bus groups, while Metered-taxis were allocated space close to the Stadium entrance off Walter Gilbert Road. The remainder of Walter Gilbert Road was reserved for the park-and-ride shuttle bus services provided by Durban Transport's Mynah Bus Service. VIPs and other dignitaries were accommodated either within the Stadium or in the fields immediately east of the Stadium.

For local big match days, private car movement is still restricted on Walter Gilbert Roads, although the entire area around the Absa Stadium is made available to the Natal Rugby Union as a pay parking area.

Pedestrian routes are largely determined by available parking spaces. At present, apart from the areas mentioned above the parking at the Kings Park swimming pool complex and adjacent fields to the south is frequently used, as are the median and verges along NMR avenue. The main pedestrian routes are subsequently along NMR Avenue and Walter Gilbert Road.

Access along Jacko Jackson Street is normally controlled during big matches and restricted to disc holders only.

6.5.1 Analysis of Access Times and Congestion Points

It is proposed to provide drop-off and pick-up facilities for buses, coaches, minibus-taxis
and metered-taxis in Walter Gilbert Road, which is immediately adjacent to the Stadium.

All public transport vehicles will therefore require direct access to Walter Gilbert Road from the surrounding road network. Provided that matches do not conflict with peak commuter traffic, access to Walter Gilbert Road from the Northern Freeway northbound, NMR Avenue and Umgeni Road should be easily accommodated.

The large tracts of vacant land, existing public parking areas and planned parking garages that are within walking distance of the Stadium will be used for private vehicle parking.

6.6 Airport

The state of planning for Durban International Airport (DIA) is currently dominated by efforts to relocate the Airport to La Mercy, some 40 km north of its present position. In the interim, the existing DIA requires upgrading to handle background traffic growth until the move becomes a reality.

Based on figures supplied by ACSA, current pax moving through DIA is around 2.5 million per annum, while recent trends indicate an annual growth rate of some 2% up to 2015. Recent upgrades to the airport precinct will result in an increase in passenger through put of 3.5 million pax per annum.

6.7 Conclusions

The audit of the existing transportation system in Durban has shown that the current infrastructure and planned improvements can accommodate a major international event such as the FIFA 2010 World Cup.

The existing infrastructure is of a high standard and the Durban CBD, as the main employment node in the Metropolitan Area, is well served by public transport.

Contingency plans implemented during recent international sporting events and major conferences were all successful in accommodating the “surge” demand during these events.

It is likely that an event of the magnitude of the FIFA 2010 World Cup will spur the implementation of planned road and other public transport infrastructure improvements.
7. CAPE TOWN

7.1 Commentary on the Transport Situation

Cape Town is the capital city of the Western Cape Province, the seat of the National Parliament and a major business, cultural, educational and tourism centre in South Africa. The Cape Metropolitan area has a population in excess of 3.0 million people.

Cape Town International Airport is located approximately 15 kilometers from the CBD. It is South Africa’s second busiest airport and serves both international and domestic routes.

National Roads connect Cape Town with other World Cup Cities and regional destinations. Metropolitan Cape Town has a comprehensive freeway network, complemented by an extensive arterial road system of some 2200 km.

Cape Town is served by intercity rail, as well as an extensive commuter rail network. In addition to this, intercity bus services link the city to the rest of South Africa. Bus and minibus-taxi services operate in Cape Town, offering a full range of services, from virtually door-to-door personalised minibus-taxis to high-capacity line haul services.
A significant portion of the content of this report’s content on Cape Town is extracted directly from the Metropolitan Transport Plan, with the permission of the Executive Director. This planning process, referred to as Moving Ahead, is far advanced and has already produced its first five-year prioritised implementation plan. It reaffirms the depth of planning, preparedness and capacity of the Cape Town region to host major events, such as the FIFA 2010 World Cup.

Over the past 20 years, the modal split in the Cape Metropolitan Area between public and private transport has remained relatively stable, at around 50% each. Within the public transport sector, however, significant shifts have occurred in the market shares of the bus and minibus-taxi modes.

### Table 7.1: Passenger Mode Split

<table>
<thead>
<tr>
<th>Mode</th>
<th>No. of passengers in AM peak</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private car</td>
<td>497 000</td>
<td>49%</td>
</tr>
<tr>
<td>Train</td>
<td>251 300</td>
<td>24.7%</td>
</tr>
<tr>
<td>Bus</td>
<td>43 300</td>
<td>4.3%</td>
</tr>
<tr>
<td>Minibus-taxi</td>
<td>152 400</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>71 000</td>
<td>7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1 014 700</strong></td>
<td></td>
</tr>
</tbody>
</table>

### 7.2 Road Network Review

#### 7.2.1 National Links

The following National Roads connect Cape Town with other World Cup Cities and other main destinations:

### Table 7.2: National Roads

<table>
<thead>
<tr>
<th>Route number</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1</td>
<td>Cape Town – Bloemfontein – Johannesburg – Pretoria – Polokwane – Zimbabwe</td>
</tr>
<tr>
<td>N2</td>
<td>Cape Town – Port Elizabeth – Durban</td>
</tr>
<tr>
<td>N7</td>
<td>Cape Town – Springbok – Windhoek (Namibia)</td>
</tr>
</tbody>
</table>

#### 7.2.2 Metropolitan Road Network

Metropolitan Cape Town has a comprehensive road network of some 2 200 km. For this overview, only the higher order freeway and arterial road network will be described, as they will be the routes primarily used during FIFA 2010 World Cup.

### Freeway Network

- The N1 freeway links central Cape Town with the northern suburbs, including the City of Bellville
- The N2 freeway links central Cape Town with Cape Town International Airport, Khayalitsha and Somerset West.
- The R300 orbital freeway links, via systems interchanges, the N1 and N2 corridors. Proposals to extend it further north to the N7, and further west to link up with the M5 Kromboom Parkway are expected to be operational by 2010.
- The M5 Kromboom Parkway is a north-south metropolitan freeway that links the southern suburbs to the N1 and N2 freeway corridors.

### Arterial Network

The freeway network is complemented by a comprehensive arterial road system. In 1998, a R60m metropolitan-wide area traffic
control system was implemented on the primary arterial network. This system controls over 600 synchronised intersections and has improved traffic flows by between 10 and 20% during both peak and off-peak periods.

7.2.3 Travel Times

Private transport travel times to Newlands Stadium are shown in Figure 7.2.

![Figure 7.2: Newlands Stadium: Private Transport Travel Times](image)

Typically free flow private one travel times:

- The V&A Waterfront (accommodation centre for the World Cup Family) to Newlands Stadium in 10 to 15 minutes.
- The airport to Newlands Stadium in 15 to 20 minutes.
- The western seaboard accommodation centres (Sea Point, Clifton, Camps Bay) to Newlands Stadium in 15 to 20 minutes.
- The accommodation centres in the vicinity of the Newlands Stadium (Constantia) to Newlands Stadium in less than 10 minutes.

7.2.4 Capacity Upgrade Prioritisation

Within the framework of Moving Ahead a comprehensive analysis and prioritisation programme is in place to ensure that planning for the future is well managed and that implementation plans are timeously approved. The region has a well developed civil engineering industry capable of meeting any demands put on it as a result of upgrades for the FIFA 2010 World Cup.
7.2.5 Traffic Incident Management

The Traffic Incident Management System forms part of the Cape Metropolitan Authority’s comprehensive planning initiative for the metropolitan community.

The incident management system and central control office facilitates the effective co-ordination of the emergency services and their joint response to incidents occurring on the metropolitan road network. Through prior planning and awareness of the demands placed on resources, incident management strives to minimise road closures and traffic delays through a system of on-scene co-ordination and centralised communications.

7.3 Public Transport Review

Rail, bus and minibus-taxi services operate in Cape Town, offering a full range of services from virtually door-to-door personalised minibus-taxis to high-capacity line haul services of buses and commuter rail.

**Speeds and Run Times**

Typically one can travel by public transport from:

- The V&A Waterfront (accommodation centre for the World Cup family) to Newlands Stadium in 20 to 30 minutes.
- The airport to Newlands Stadium in 20 to 30 minutes.
- The western seaboard accommodation centres (Sea Point, Clifton, Camps Bay) to Newlands Stadium in 20 to 30 minutes.
- The accommodation centres in the vicinity of the Newlands Stadium (Claremont, Rosebank, Mowbray, Wynberg, Constantia) in less than 10 minutes.
- Accommodation centres as far as Lakeside, Athlone, Milnerton in 10 to 20 minutes.
7.3.1 Metropolitan Commuter Rail Network

The commuter rail system is operated by Cape Metrorail, a business unit of Transnet, in accordance with a contract agreement with the South African Rail Commuter Corporation (SARCC).

Cape Town’s electrified commuter rail network is one of the best developed in Africa and consists of six separate lines on 260km of track with 97 passenger stations combining to form the overall system. This primary public transport mode carries in excess of 615 000 daily commuters.

A schematic diagram of the Cape Metropolitan Railway Network is presented as Figure 7.5, which shows the number of main line tracks and identifies all passenger stations. Of relevance to the FIFA 2010 World Cup is the fact that Newlands Stadium is directly served by the Newlands Railway Station, and that the City and V&A Waterfront are well linked via the Southern Suburbs line (together with feeder bus services to the V&A Waterfront and the Western Seaboard from Cape Town Station).
**Upgrade Programme**

Metrorail and the SARCC have developed a comprehensive, prioritised station-upgrade programme for the entire Cape Town system. The major elements of this programme are:

- Access Control (fare gates)
- Closed Circuit Television (CCTV)
- Public address and information systems
- Ticket issuing facilities
- Facilities for the mobility disadvantaged

Most of the commuter track and station facilities fall under the ownership of SARCC.

*Figure 7.5: Existing Cape Metropolitan Network*
7.3.2 Bus Operations

All bus operators in the Cape Metropolitan Area are private companies. Scheduled passenger services are provided by Golden Arrow Bus Services (GABS), who operate more than 700 buses. The average carrying capacity of GABS commuter buses is 75 passengers, with 75% seated. As part of a fleet rehabilitation programme, new electronic destination screens have been fitted to all buses.

Most tourist services within the CMA are provided from hotels to various tourist sightseeing destinations by specialised operators, many of whom own their own luxury coaches. Tour bus operators include larger companies such as Atlas, Hylton-Ross, Elwiera and Ikapa. Most of the larger established bus companies in the metropolitan area are affiliated to the South African Bus Operators Association (SABOA).

Bus routes in the metropolitan area generally follow the higher-order road network. The Metropolitan Transport Authorities has embarked on the implementation of a network of public transport lanes. By 2010, this network will consist of over 100km of priority lanes for public transport vehicles.

7.3.3 Minibus-taxis

The minibus-taxi mode is an unusual form of public transport that has developed extensively in Southern Africa. This mode provides an economical yet personalised form of public transport at a good level of mobility for the many people who do not own or have access to a car.

Providing a variety of services, this industry operates on a licensed basis with approximately 6200 vehicles during the busy morning peak period. Most minibus-taxis carry between 10 to 14 people per vehicle. The operators of minibus-taxis in the Cape Metropolitan Area have voluntarily grouped themselves into associations which operate on selected routes that terminate either at a rail station, a town centre, or a suburb.

Minibus-taxi services can be classified into three distinct categories:
- Feeder/shuttle services can be defined as routes that convey passengers between residential areas and suburban railway stations for the primary purpose of interchanging with rail services.
- Long distance, non-stop line-haul services, typically non-stop services between residential and employment areas.
- Conventional multi-stop corridor services.

7.3.4 Metered-taxis

Over 600 metered-taxis provide a broad range of services, such as the transport of tourists, residents, and business people. They can be found at specific ranks, hailed on street, or called for by telephone. Metered-taxis are particularly popular at night when normal public transport is not available or less frequent.

The Cape Town International Airport is served by metered-taxis as well as bus/coach shuttle operators accredited to operate services from the airport to key destinations in the City.
7.4 Key Transport Issues relating to Newlands Stadium, Cape Town

7.4.1 Key Access Routes to the Stadium

This section of the report describes the key access routes to the Newlands Stadium, which will be used for the FIFA 2010 World Cup.

The travel time grid in Table 7.3 indicates proximity of the Newlands Stadium to the main centres of accommodation.

The FIFA 2010 World Cup Family will travel along secured routes by coach from their accommodation at the Waterfront along Eastern Boulevard and the M3, exit at Klipper road and proceed directly to the VIP coach parking at Newlands Stadium.

7.4.2 Types of Transport

The Regional spectators will primarily use coaches and public transport, and local spectators will use a combination of public and private transport. The use of public transport will be strongly recommended and for this purpose special train, bus and minibus-taxi services will be arranged. The traffic department will deploy a considerable number of additional traffic officers to control traffic flows and parking in and around the Newlands area.

### Table 7.3: Time distance matrix

<table>
<thead>
<tr>
<th>Newlands Stadium</th>
<th>Proposed Century Stadium</th>
<th>Cape Town Internat. Airport</th>
<th>City Centre, Hotels &amp; Public Transport</th>
<th>Accommodation (Waterfront)</th>
<th>Accommodation: (Southern Suburbs)</th>
<th>Accommodation: (Western Seaboard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 min</td>
<td>8 km 5 mi 2 km 1 mi 20 min</td>
<td>15 min 15 min 5 min</td>
<td>9 km 5 mi 15 min 9 mi 5 min 20 min</td>
<td>15 km 9 mi 10 min</td>
<td>4 km 2 mi 3 km 2 mi 12 km 7 mi</td>
<td></td>
</tr>
<tr>
<td>15 km 9 mi</td>
<td>20 min 14 km 9 mi 15 min 15 min 13 km 8 mi</td>
<td>10 min 12 km 7 mi 17 km 10 mi 25 min</td>
<td>20 min 12 km 12 mi 20 min 10 min 10 min</td>
<td>12 km 7 mi 16 km 10 mi 20 km 12 mi 4 km</td>
<td>20 km 12 mi 4 km 2 mi 3 km 2 mi 12 km 7 mi</td>
<td></td>
</tr>
</tbody>
</table>

Key: min = minutes, km = kilometres, mi = miles
Trains
Special trains will be run on all major lines, arriving and departing at 5 to 10 minute intervals. Newlands Station is a five minute walk away from the stadium. To encourage spectators to “park ‘n ride”, special parking areas will be provided at major stations on match days.

Buses and coaches
Golden Arrow will provide shuttle services along Main Road at 10 minute intervals linking Wynberg, Newlands and the City. Parking for coaches will be provided in close proximity to the stadium on Main Road and Camp Ground Road.

Minibus-taxis
Special minibus-taxis will be organised to link key tourist areas like hotels, guest houses, the V&A Waterfront and hospitality centres with the Newlands Stadium. They will be ranked on the corner of Main Road and Sans Souci Road at the swimming pool, a five minute walk from the stadium.

Cars
A number of strategically located parking areas will be provided for private and hired cars. In addition, shuttle bus services will operate between the more remote parking areas and the stadium.

7.4.3 Current Ability to Host Capacity Crowds
Newlands Stadium frequently hosts major matches, which attract capacity crowds. Management of traffic, parking and spectators is handled effectively on a regular basis through an approved Transport Management Plan.
7.4.4 Upgrading of Access to Newlands Stadium

A number of upgrading schemes are either underway or will be implemented before the FIFA 2010 World Cup, thus further improving accessibility from its current highly satisfactory state.

Local upgrading:
- Newlands Railway Station
- Claremont CBD Relief Road Scheme, Metropolitan upgrading
- Cape Town Railway Station upgrade
- Major public transport improvements, including new rolling stock, station and public transport interchange upgrading, etc.
- Completion of the R300 freeway
8. PORT ELIZABETH

8.1 Commentary on the Transport Situation

The three municipalities of Port Elizabeth, Despatch and Uitenhage together form the Nelson Mandela Metropolitan Municipality. In this report for ease of reference of the international readers, this municipality will be referred to as Port Elizabeth. The metropolitan area covers some 730 square kilometres and has a metropolitan population of 1.5 million people.

Port Elizabeth airport connects the city to destinations within South Africa through frequent domestic flights. It is located to the south of the city centre, within 10-15 minutes travel time from the accommodation centres.

Port Elizabeth is served by the National Road (N2) which connects it to major cities such as Cape Town and Durban. The city has a well-developed freeway system, supplemented by a comprehensive arterial road system.

Port Elizabeth is served by rail with daily connections to other towns in the region. In addition, intercity bus services link it to major cities within South Africa. An extensive Public Transport System, consisting of bus, minibus-taxis and metered-taxi services, transport more than half of all passengers in the metropolitan area. The results of passenger surveys indicate that nearly two-thirds (63,4%) of public transport trips are made by minibus-taxi, with bus services run by Algoa Bus Company having captured approximately a third (33%) of the market share. Only 3,8% of commuters make use of trains.

During the past decade, since the Interim Transport Plan was prepared, there have
been significant social, political and economic developments in South Africa, many of which affect transportation planning in the metropolitan areas. In the light of these developments, transport goals, objectives and policies have been updated.

The revised and updated goals, objectives and policy statements for the Port Elizabeth Transport Plan are as follows:

- To develop a land use structure plan that minimises the need for travel.
- To provide an arterial road system and public transport system to make all parts of the metropolitan area accessible.
- To enhance the viability of all business activity centres by transportation improvements and traffic management systems.
- To make provision for public transport modes that serve passengers’ different travel needs.

8.2 Road Network Review

8.2.1 Metropolitan Road Network

Port Elizabeth maintains 2 000 km of roads throughout the city at an annual cost of some R12 – 15 million per year.

Figure 8.2 shows existing roads of metropolitan significance in the Port Elizabeth area. The peak hour level of service on all these roads has been determined from a traffic volume to capacity analysis and is indicated by different colours.

Typically one can travel from:

- Uitenhage and Despatch to the stadium in 30 to 40 minutes
- The Airport to the stadium in 5 minutes
- Accommodation in Summerstrand and Humewood to the stadium in 10 to 15 minutes
- Port Elizabeth Bus Station and Railway Station to the stadium in 15 to 20 minutes
- North-western suburbs of Bloemendal and Bethelsdorp to the stadium in 15 to 20 minutes.

8.2.2 Capacity Upgrade Prioritisation

Within the framework of the Interim Transport Plan for Port Elizabeth a prioritisation programme is in place to ensure that planning for the future is well managed.

8.2.3 Traffic Management Systems, Incident Detection and Response

To improve traffic flow and reduce delays to commuters, the Port Elizabeth Municipality has installed modern, state-of-the-art signal-control equipment. Sixty-eight controllers in the city now operate under SCOOT (split cycle offset optimising technique), with a total of 131 under Urban Traffic Control System (UTC) control. SCOOT for traffic signals has been proved internationally to reduce traffic delays, journey times and fuel consumption by as much as 20%.

Since Port Elizabeth became a unified city, the Traffic and Licensing Services Department has focused on addressing the serious lack of traffic safety measures in the previously disadvantaged areas, some of which never had the benefit of a traffic control function.
The Traffic Management Plan (TMP) for the City is based on a holistic approach to create a safe and secure traffic environment for all road users by involving all the role-players and using the latest scientific methods.

The Department’s Information Technology Division services a total of eleven emergency callpoints. These callpoints are located in areas with insufficient communication infrastructures. They operate on the Department’s radio frequency and are used to summon various emergency services via the Fire and Emergency Services Control Centre. The units are portable, and, as areas develop, they can be moved to undeveloped areas, ensuring that all communities have access to emergency services.

A computerised mapping system for the entire Port Elizabeth area was installed in the Department’s Control Centre to shorten response time to emergency incidents. This system can also be used in conjunction with the GPS satellite tracking system, which would greatly assist in the effective employment and control of emergency vehicles at emergency incidents.
8.3 Public Transport Review

The main providers of public transport services in the Port Elizabeth area are:

- **Rail Service**: Metrorail, a business unit of the parastatal company South African Rail Commuter Corporation (SARCC), which is responsible for providing all commuter rail services in South Africa.

- **Bus Service**: The total bus fleet in the Port Elizabeth area amounts to approximately 420 buses.

- **Minibus-taxis**: A total of approximately 1800 minibus-taxis operate in the metropolitan area, providing services on a shared basis.

- **Metered-taxi Service**: This is the traditional hired metered-taxi, which numbers approximately 60 vehicles in the Port Elizabeth area.

The extent of the Port Elizabeth public transport network (minibus-taxi, bus and train) is indicated in Table 8.1 below.

<table>
<thead>
<tr>
<th>NETWORK TYPE</th>
<th>LENGTH (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minibus-taxi route only</td>
<td>108</td>
</tr>
<tr>
<td>Bus route only</td>
<td>215</td>
</tr>
<tr>
<td>Shared bus and minibus-taxi route</td>
<td>415</td>
</tr>
<tr>
<td>Rail line</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>771</td>
</tr>
</tbody>
</table>

8.3.1 Metropolitan Rail Network: Overview

There is a double rail line between Port Elizabeth Central and Swartkops Station, allowing for a uni-directional peak hour line capacity of 18 trains along this section. From Swartkops to Uitenhage and Aloes, the single rail line allows for a peak hour capacity of four trains in one direction. Although it does not link directly to the stadium, the system will provide useful public transport linkages during the FIFA 2010 World Cup.

During the week the commuter rail service operates in the morning and afternoon peak periods with up to nine trains running in the peak direction. Special trains will be provided during FIFA 2010 World Cup matches in the city, and connection to the Stadium will be provided by the bus system.

8.3.2 Bus Operations

The total number of permits granted to bus operators in the Port Elizabeth area amounts to 420. Only 88 of these permits are for independent operators, with the remainder being issued to the Algoa Bus Company.

The Algoa Bus Company is the only subsidised operator in the Port Elizabeth area. The Algoa Bus company has Wayfarer ticket issuing machines on its buses from which detailed passenger boarding information can be obtained. The results of the Wayfarer analysis and on-board surveys indicate that the Algoa Bus Company transports approximately 65 000 passengers per day during the 1 500 trips that are operated. Slightly more passengers are transported during the morning period than in the afternoon.

8.3.3 Minibus-Taxis

There are nine recognised minibus-taxi associations based in the metropolitan area. The 50 formal and informal minibus-taxi ranks in the Port Elizabeth area serve a total of 263 routes (destinations) with minibus-taxis conveying approximately 125 000
passengers a day in over 1 800 licensed minibus-taxis.

The Core City has, over the past five years, made a concerted effort to upgrade public transport facilities in the Port Elizabeth area, especially in the previously disadvantaged areas where these communities rely on public transport as their only means of mobility. More than R20 m per annum has been spent on upgrading facilities to an acceptable standard.

8.3.4 Metered-taxi Service

The metered-taxi service, with a total fleet of 60 vehicles, operates mainly on a booking / call-out basis. The main holding areas are at the City Hall in Govan Mbeki Avenue and at Port Elizabeth Airport.

8.4 Key Transport Issues relating to the FIFA 2010 World Cup

This section of the report describes the key access routes to the new Telkom Park Football Stadium, which will be used to host the FIFA 2010 World Cup. The Port Elizabeth Orientation Map shows the principal routes and transport interchanges in relation to the stadium.

### Table 8.2: Time distance matrix

<table>
<thead>
<tr>
<th>Telcom Park Stadium</th>
<th>Port Elizabeth Airport</th>
<th>Summerstrand (Main hotels)</th>
<th>City Centre (inc. Rail &amp; Bus Station)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 min</td>
<td>3 km 2 mi</td>
<td>5 min 15 min 3 km 3 mi</td>
<td>15 min 15 min 5 km 3 mi 5 km 3 mi</td>
</tr>
<tr>
<td>3 km 2 mi</td>
<td>5 km 3 mi</td>
<td>5 km 3 mi</td>
<td>5 km 3 mi</td>
</tr>
<tr>
<td>5 min 15 min</td>
<td>15 min</td>
<td>15 min</td>
<td></td>
</tr>
</tbody>
</table>

Key: min = minutes, km = kilometres, mi = miles

\[\text{Figure 8.3: Telkom Park Stadium - Port Elizabeth}\]
8.4.1 World Cup Family

The Soccer World Cup family will travel along secured routes by coach from their accommodation at Humewood along Marine and La Roche Drives and proceed directly to VIP coach parking at the stadium.

8.4.2 FIFA 2010 World Cup Spectators

The regional spectators will primarily use coaches and public transport and local spectators will use a combination of public and private transport. The use of public transport will be strongly recommended and for this purpose special train, bus and minibus-taxi services will be arranged.

The venue, Telkom Park Stadium, is serviced by both bus and minibus-taxi routes. In addition, Uitenhage and Despatch are connected by rail to the Port Elizabeth station where bus and minibus-taxi services are available.

8.4.3 Trains

Special trains will be run. Port Elizabeth station will be linked to the Stadium with a special bus service. To encourage spectators to “park-and-ride” special parking areas will be provided at major stations on big match days.

8.4.4 Buses and Coaches

Independent coach operators and the Algoa Bus Company will provide shuttle services along the following access routes at 10 minute intervals.

- From the northern suburbs via Settlers Way, Humewood Road, Beach Road and La Roche Drive.
- From the north-western suburbs via Stanford Road, Harrower Road, Settlers Way, Humewood Road, Beach Road and La Roche Drive.
- From the Western Suburbs via Cape Road, Settlers Way, Humewood Road, Beach Road and La Roche Drive.
- From the south-western suburbs via Buffelsfontein Road, Heugh Road, Third Avenue, Walmer, Alister Miller Drive and La Roche Drive.
- Coaches will be provided with dedicated parking in close proximity of the stadium at the corner of Strandfontein and La Roche Drives.

8.4.5 Minibus-taxis

Special minibus-taxis will be organised to link key tourist areas like hotels/guest houses in the Summerstrand and Humewood area as well as hospitality centres in Walmer to the Telkom Park Stadium. They will be ranked on the corner of Marine and La Roche Drives.

8.4.6 Cars

A number of strategically located parking areas will be provided for private and hired cars. In addition, shuttle bus/minibus-taxi services will operate between more remote parking areas and the Stadium. Unlimited parking is available within walking distance of the stadium and the “B field” at Telkom Park will be opened to prepaid permit holders.
8.4.7 Traffic Management and Security

The traffic department will be deploying a considerable number of traffic officers to control traffic flows and parking. Special access information sheets will be produced to assist spectators in planning their journeys.

8.4.8 Current Ability to Host Capacity Crowds

The existing Telkom Park Stadium hosts major football and rugby matches and is also used as a venue for pop concerts. A number of 1995 Rugby World Cup matches were successfully staged at this venue. The new football stadium will be planned and constructed to international standards with the necessary transportation access / support infrastructure.
9. KIMBERLEY

9.1 General and Town Information

Kimberley is located in the Northern Cape and is very close to the border with the Free State. The town serves as the administrative capital of the Northern Cape. The N12 national highway runs through Kimberley and due to its central location, it is served by a number of other regional roads. The N12 provides and alternative to the N1 between Johannesburg and Cape Town. The N8 national road between Kimberley and Bloemfontein also increases the general accessibility of Kimberley.

The diamond-mining heritage has made Kimberley one of the best known cities in the world. The town has a population of nearly 200,000 permanent residents and has a well-developed business district and road and infrastructure.

Kimberley is located centrally in South Africa and is therefore well served by the national rail network and luxury bus services.

9.2 The Stadium at Kimberley

9.2.1 Stadium Characteristics

The Kimberley Stadium is planned close to the town centre. The planned stadium will have a seating capacity of 26,000. The proposed stadium is in an advanced stage of planning. The town also has a large number of sports facilities and clubs like soccer and rugby stadiums, a golf course and swimming pools.

9.2.2 Stadium Access Issues

Accessibility to the stadium will be excellent with the stadium being located very close to the town centre. Kimberley is served by an extensive minibus-taxi service and bus service. Road access to the stadium is also excellent. Ample parking is available in the vicinity of the venue.

9.3 Transport Situation

The Sol Plaatjies Municipality embarked on a travel demand survey in 1998 to determine the extent of private and public transport usage within Kimberley. The results showed that the majority of residents use private transport (48%), walking (27%) and public transport (18%). It is, however, expected that public transport will play a major role in the transportation of people attending matches scheduled in Kimberley.

Traffic information for both the rural road network and the urban road network showed that Kimberley does not experience the same daily congestion problems as seen in other cities within South Africa. In general, the travel from any part of Kimberley to the CBD is limited to not longer than 15 minutes, therefore making it highly accessible.

9.4 Traffic Management Systems in Place, Incident Detection and Response

The National Roads Agency was responsible for the establishment of an Incident Management System on the N8 national route. The establishment of this Incident Management System resulted in the provision of a sophisticated and highly effective incident and emergency response system which involves all emergency service departments including the:
- Sol Plaatjie Municipal Fire Department
- South African Police Services
- Municipal and Provincial Traffic Departments
- Provincial and Private Ambulance Service.

**Figure 9.1: Kimberley Orientation Map**

**Table 9.1: Time distance matrix**

<table>
<thead>
<tr>
<th>Kimberley Stadium</th>
<th>Kimberley Town Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 min</td>
<td>6 km 4 mi</td>
</tr>
<tr>
<td>6 hr 49 min</td>
<td>6 hr 42 min</td>
</tr>
<tr>
<td>482 km 300 mi</td>
<td>472 km 293 mi</td>
</tr>
<tr>
<td>16 min</td>
<td>11 km 7 mi</td>
</tr>
<tr>
<td>8 min</td>
<td>5 km 3 mi</td>
</tr>
<tr>
<td>6 hr 47 min</td>
<td>477 km 297 mi</td>
</tr>
</tbody>
</table>

**Key:**
- min = minutes
- km = kilometres
- mi = miles
10. NELSPrUIT

10.1 General Transport Network Information

Mpumalanga Province is located immediately east of Gauteng. The two provinces are well linked by road, air and rail transport. The main highway linking the two provinces is the N4 Toll Road. Nelspruit, the capital of Mpumalanga is located approximately 350 km east of Johannesburg and Pretoria.

The Kruger Mpumalanga International Airport airport serves the Nelspruit and Witrivier area as well as the ever-increasing number of tourists and holidaymakers choosing the Kruger National Park and surrounding game farms as destinations. The airport is located approximately 25km north-east of Nelspruit. The road linking Nelspruit with the airport is currently part of a multi-million Rand, province-wide upgrading project.

Nelspruit is served by rail with a daily rail service to and from Johannesburg. This route also continues on to Maputo in Mozambique. In addition, regular inter-city bus services are operated between Gauteng and Nelspruit.

10.2 The Stadium at Nelspruit

10.2.1 Stadium Characteristics

The proposed stadium for Nelspruit will be located approximately 5 kilometres north of the city centre. The stadium is located on the main route between Nelspruit and Witrivier, near major entertainment facilities and shopping areas.

The seated capacity of the stadium will be approximately 60 000. The stadium is in a very advanced stage of planning and construction is scheduled to commence soon.

10.2.2 Transport / Stadium Access Issues

Accessibility to the stadium will be excellent with the stadium being located adjacent to the main route between Nelspruit and Witrivier and very close to the road running between Sable and Nelspruit. A direct rail link between the site for the stadium and the main railways station in Nelspruit is also fully operational and can easily be operated to suit the needs of visitor to the venues. Large leisure and entertainment facilities are within easy walking distance.

Nelspruit is served by an extensive bus and minibus-taxi service. In Nelspruit alone, more than 150 buses provide transport not only to local residents but also to the ever increasing number of tourist. Recent studies showed that the existing road network with minimal changes can easily serve the new stadium in Nelspruit. The minibus-taxi industry also provides services connecting the city with rural areas, and the townships of Msogabwa and Kamugugu.
### Table 10.1: Time distance matrix

<table>
<thead>
<tr>
<th></th>
<th>Nelspruit Stadium</th>
<th>Nelspruit Town Centre</th>
<th>KMIA Airport</th>
<th>JIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8 min</strong></td>
<td>8 min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5 km 3 mi</strong></td>
<td>5 km 3 mi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>35 min</strong></td>
<td>30 min</td>
<td>4 hr 51 min</td>
<td>4 hr 26 min</td>
<td></td>
</tr>
<tr>
<td><strong>27 km 17 mi</strong></td>
<td>22 km</td>
<td>4 hr 43 min</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4 hr 51 min</strong></td>
<td>362 km 225 mi</td>
<td>355 km 222 mi</td>
<td>333 km 207 mi</td>
<td></td>
</tr>
</tbody>
</table>

**Key:**
- **min** = minutes
- **km** = kilometres
- **mi** = miles