

ETHEKWINI TRANSPORT AUTHORITY

**INTEGRATED TRANSPORT PLAN
2005 - 2010**

SUMMARY REPORT

Prepared for:



**eThekweni Transport
Authority**

March 2005

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- ❖ Dept of Transport
- ❖ KZN Dept of Transport
- ❖ South African National Roads Agency Ltd. (SANRAL)
- ❖ South African Rail Commuter Corporation
- ❖ EThekweni Municipality: Engineering Unit: Roads Provision Department
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- ❖ National Port Authority
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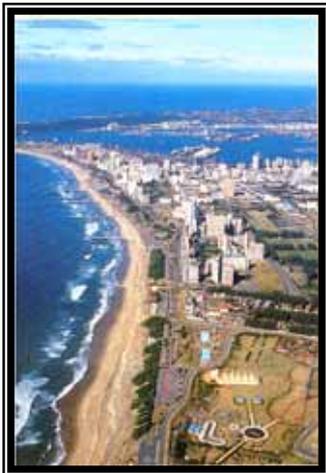
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1. INTRODUCTION

The Integrated Transport Plan (ITP) prepared in terms of the National Land Transport Transition Act (NLTTA) 2000, for the period 2005 to 2010, has been prepared by the eThekweni Municipality.



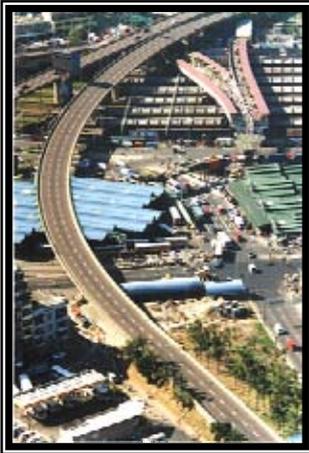
eThekweni Municipality covers approximately 2300km² and is home to some 3.7 million people, just over one third of the population of KwaZulu Natal. It is by far the largest of the two Metropolitan councils in the province and accounts for 60% of economic activity within the province.

The ITP consists of 14 sections as shown below. The full documented is supported by appendices some in hard copy format and others in electronic format due to the size of the documents.

The summaries of sections 2 to 13 of the ITP highlight key aspects of each section in order to give a comprehensive but broad overview of the ITP.

- Section 1 Introduction
- Section 2 Land Management Mission Statement & Goals
- Section 3 IDP Spatial Framework, Long Term Trends & Key City Projects
- Section 4 Transport Demand Management
- Section 5 Public Transport
- Section 6 Roads
- Section 7 Road Safety
- Section 8 Freight
- Section 9 Traffic Management and Control
- Section 10 Special Projects
- Section 11 Funding Strategy
- Section 12 Implementation Plan
- Section 13 Monitoring, Evaluation, KPI's
- Section 14 Stakeholder Consultation

2. LAND TRANSPORT MISSION STATEMENT & GOALS



The ETA's transport mission statement creates the framework for the setting of goals and the development of policy for the various components of the ITP. The mission statement has been developed within the context of the national and provincial visions for transport.

Transport has a major influence on development. At the same time it is impacted by development and land use. Consequently, the ETA's vision for transport recognises the imperatives of the IDP vision and sets a framework for goals and related policy which will have a positive impact on social and economic development and activities in the municipal area.

IDP Vision

2.1 National and Provincial Context

Key issues and concerns for transport that emerge from the national and provincial visions for transport focus on the need for transport systems and services that meet the needs of the end users and are:-

**Key issues
For transport**

- safe
- reliable
- effective
- efficient
- affordable
- integrated

Further, such systems and services need to:-

- improve quality of life for all
- support government strategies for social and economic development
- improve levels of accessibility and mobility
- be economically and environmentally sustainable
- make provision for community participation

**System and
service
requirements**

Collectively, these perspectives on transport give direction to the local authority in terms of their mission, goals and policy for transport.

Further direction is provided by the eThekweni IDP vision as set out below.

2.2 eThekweni IDP Vision & City Development Strategy

2.2.1 IDP Vision

The following is eThekweni's IDP vision statement:-

IDP Vision for eThekweni:

By 2020, eThekweni Municipality will enjoy the reputation of being Africa's most caring and liveable city, where all citizens live in harmony. This Vision will be achieved by growing its economy and meeting peoples needs so that all citizens enjoy a high quality of life with equal opportunities, in a city that they are truly proud of.

The ways in which transport can contribute to a **high quality of life** in terms of the broad objectives of the IDP vision are:-

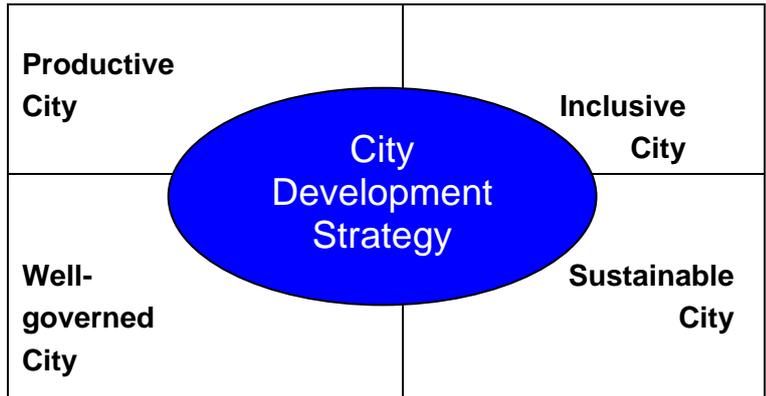
1. Meet people's needs through:-
 - Increased access to opportunity for poorer communities through provision of an efficient and effective public transport system that is reliable, convenient, safe and affordable.
2. Grow the economy through:-
 - dependable public transport supporting a stable workforce for industry
 - providing a safe and efficient transport system for all modes of transport
 - creating opportunities for growth within the transport industry
3. Build people skills and technology by:-
 - providing assistance and creating opportunities for SMME's to participate in various aspects of the transport industry

**Transport
contribution
to IDP vision**

- applying effective technology for security, good communications to passengers, operating safety and efficiency

2.2.2 South African Cities Network City Development Strategy

South African Cities Network (SACN) has developed and adopted a City Development Strategy with four primary programmes as shown in the following diagram.



**SA Cities Network
Development
Strategy**

This framework also provides a context for the development of transportation policy and system strategy which lends support to the eThekweni IDP vision set out above.

2.3 The ETA's Transport Mission Statement

Within the context of the national and provincial visions for transport and eThekweni's IDP vision the following is the ETA's mission statement for transport. Prior to establishment of the eThekweni Transport Authority, Council was only responsible for fixed transport infrastructure. With the establishment of the ETA this responsibility now extends to the provision, management and control of all of the following:-

- Transport infrastructure
- Public transport services
- Modes and fleet

The following mission statement recognises and responds to this wider role and responsibility for transport.

ETA's Transport Mission Statement:

“To provide and manage a world-class transport system with a public transport focus, providing high levels of mobility and accessibility for the movement of people and goods in a safe, sustainable and affordable manner”.

ETA's transport mission statement

2.4 The ETA's Transport Goals

The extension of ETA's vision into goals for transport has identified five basic goals which directly support the main thrust of eThekweni's IDP. They are the following:

Goal 1: Effective Transport

- Needs driven
- Promotes PT over private transport
- Increases mobility and accessibility
- Targets effective use of transport subsidies
- Recognises needs of the poor and supports poverty alleviation

Goal 2: Efficient Transport

- Improves transport system cost efficiency
- Integrates transport systems
- Regulates public transport and optimises role/positioning of modes
- Integrates land use and transport activities

Goal 3: Sustainable Transport

- Financially
- Environmentally
- Technologically
- Adequate skills & resources
- Adequate maintenance

ETA transport goals

Goal 4: Safe & Secure Transport

- Provides safe infrastructure and operating environment for all modes of transport (including non-motorised transport) and all passengers
- Ensures adequate regulation and levels of enforcement of services moving goods and people
- Promotes public transport passenger security systems and services

Goal 5: Black Empowerment

- Provides for participation in contracts
- Encourages and creates investment opportunities
- Promotes and provides training and support

2.5 Key Focus Areas in the Integrated Transport Strategy

2.5.1 Over-arching Strategy

Transport Demand Management (TDM) is the fundamental transport strategy that over-arches and gives a context to the following five, driving strategies in eThekweni ITP. It focuses on reducing overall trips by private transport and demand for road space whilst maximising the effective utilisation and efficient operation of road infrastructure for purposes of private and public transport use. It also places an emphasis on strategies which support and encourage use of public transport.

Transport Demand Management Strategy

TDM is discussed further in the following section.

2.5.2 Key Focus Areas

The following are the five central themes in the ITP around which strategies and plans have been developed to meet the overall transport mission of the ETA.

- Public Transport
- Freight
- Road Safety
- Roads
- Traffic Management and Control

Each of these is addressed in some depth in the ITP.

3. IDP SPATIAL FRAMEWORK, LONG TERM TRENDS AND KEY CITY PROJECTS

3.1 Spatial Framework

Currently the City does not have a fully developed Spatial Development Framework. However a draft spatial framework plan has been compiled and key issues have been identified in terms of the IDP which give direction to key components of the transport system, in particular the public transport system.



This is further supported by programmes being developed by various planning departments in eThekweni Municipality as well as input from parastatals impacting on the transport needs within the municipal area.

Figure 3.1 shows the existing public transport system along with the key public transport nodes, as well as highlighting the major routes and corridors. These are located within a boundary defined by the Municipality as its Urban Edge. It is within this boundary that a development pattern that supports the socio-economic efficiencies of a compact city is encouraged.

3.2. Population and Employment

Table 3.1 and the following graphs show the most likely growth scenarios for population and employment in the Municipality.

**Table 3.1: Population and Employment (1000's)
Most Likely Scenario
(Years 2001 and 2020)**

	Year 2001	Year 2020	Growth
Population	3 060	3 700	+21%
Employment	760	1 020	+33%

Analysis shows the following relevant trends and growth patterns.

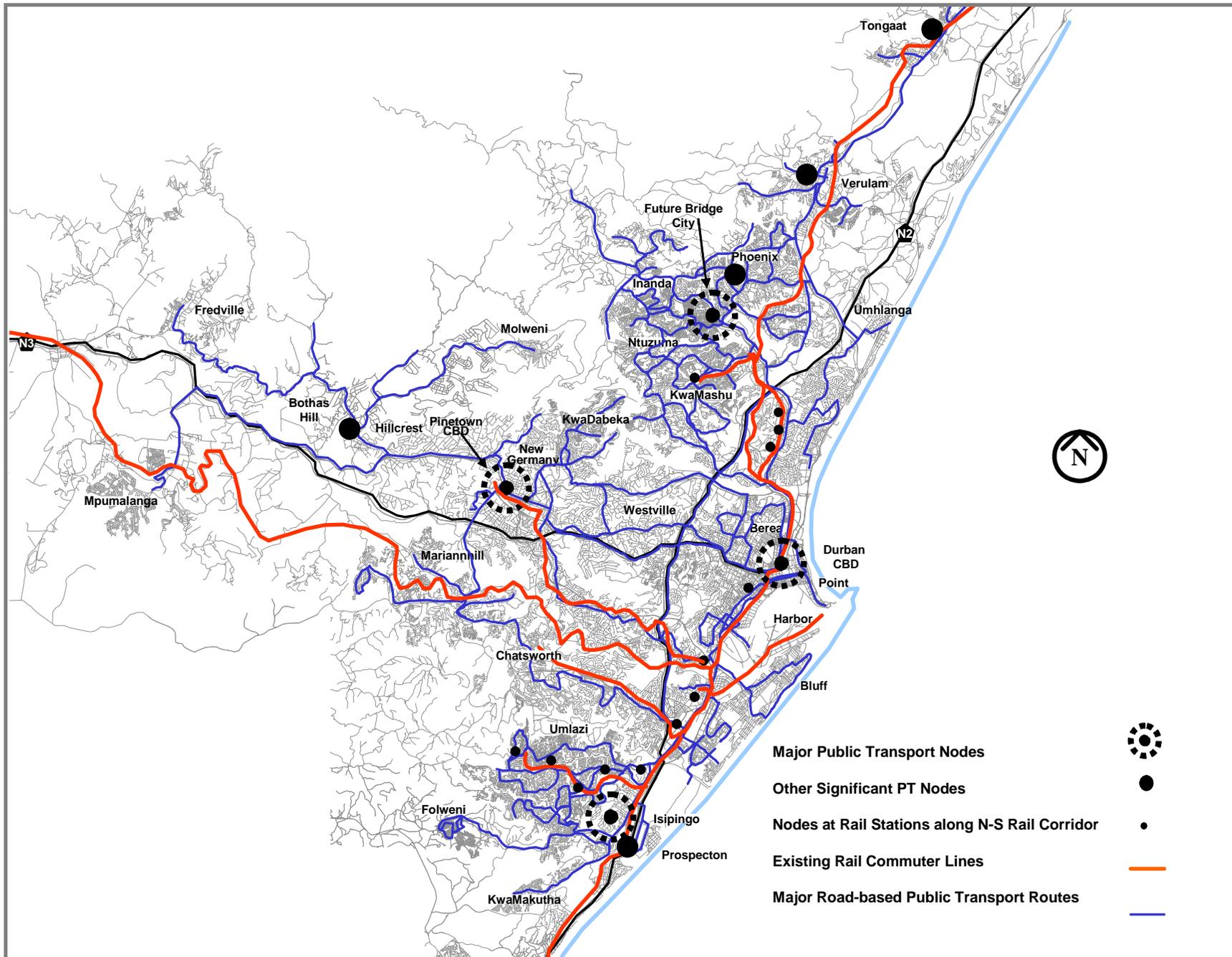
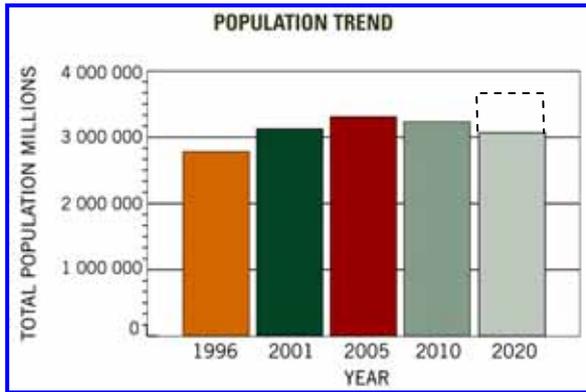


Figure 3.1:
Existing eThekweni Public Transport System

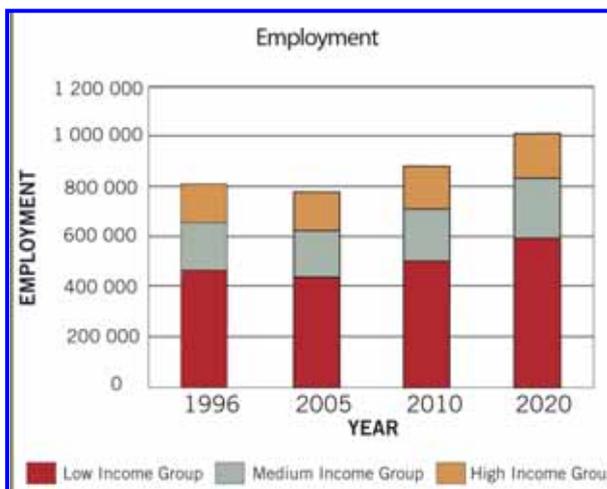


Population

- Previous projections have shown a small net decrease in population in the Municipality largely due to the impact of AIDS.
- Current projections for 2020 as shown by the dotted line indicate a net growth largely due to in-migration.

- Residential areas that are expanding include Hillcrest, Cato Manor and Welbedacht to the north and Lovu/KwaMakhuta to the south.

Whilst significant, population growth from in-migration will have limited impact on propensity for peak period travel which is predominantly employment related. In particular, such an increase will have limited if any impact on the short term ITP programme.



Employment

- An estimated 250 000 jobs, representing a net increase of 33% (2001-2020) will be located throughout the municipal area in the categories of General Commercial, General Industrial and Light Industrial. Growth in employment is mostly in the low income group.

The changing pattern of employment location are reflected in the following comments:-

- Historically the bulk of formal employment in the municipal area has been located along the coastal corridor. The exception is the major employment node of industrial/commercial activity, Pinetown-New Germany approximately 20 kilometres west of the CBD.

- There has been a significant decline in employment in established commercial and industrial areas along the coastal corridor, over the past 10 years.
- Estimates of future employment indicate that most of this loss will be recovered by year 2020 assuming active, successful interventions by eThekweni Municipality, but will not result in any net growth above 1996 levels.
- In recent years the trend has been characterised by a move of commercial development from the Durban central area to the Berea, west of the CBD and to the Umhlanga area to the north.
- There has been a deterioration and move away from the South Durban Basin (SDB) to the Pinetown/Westmead industrial area and the Effingham, Avoca industrial areas north of the Umgeni River. It should be noted that the ABM programme has been tasked with addressing issues in the SDB.
- Future employment growth is expected to the west and north.
- Central, with the exception of the Point, and the south are not expected to attract significant growth.
- Considerable employment growth is expected in the Pinetown/New Germany, Shongweni area, Hillcrest and surrounds and to a lesser degree at Botha's Hill and Hammersdale.
- Major employment growth is predicted to the north at La Mercy, Umhlanga, Effingham and Mount Edgecombe.

**Migration from
CBD and SDB**

**Future employment
growth**

**Growth to
the west**

**Growth to
the north**

In particular, growth around the proposed King Shaka (La Mercy) international airport and the adjacent iDube Transport, scheduled for operation by Year 2010 will attract considerable employment activity both during the construction and operational phases.

73.3 Key Development Projects with the City

There are currently six key City projects in various stages of planning and development that will have a major impact on the pattern and extent of travel demand in the municipal area. They are:-

- 1) **King Shaka International Airport** and associated changes possible at the existing airport. The new airport will reinforce eThekweni's position as a major tourist destination in South Africa and support the City's role as one of the 2010 Soccer World Cup venues.
- 2) **The iDube Tradeport** adjacent to King Shaka airport will be a Trade Zone focussed on a world class export environment for tenants, operators and service providers.
- 3) **The Point Development** includes the world class tourist attraction of uShaka Marine World supported by redevelopment of office and commercial activity in the Point, turning the area into an all day hub of activity for tourists and local residents.
- 4) **The Upgraded/Expanded Port**, including widening of the harbour mouth, to act as a 'clean' cargo port will focus on five major activities; break bulk cargo, liquid bulk and general cargo, as well as the car terminal and ship repairs.
- 5) **The 2010 FIFA World Cup** which will attract locals and visitors as well as creating various related tourist marketing opportunities.
- 6) **The ICC Expansion** to accommodate growing demand and contribute to the revitalisation of the CBD.

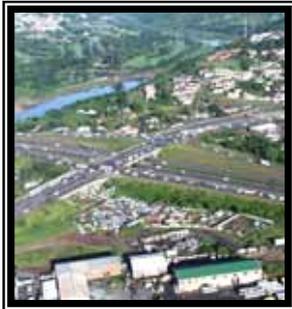
**Key city
development
projects**

3.4 The Overall Planning Environment

Figure 3.2 shows the areas that comprise the eThekweni municipal area, defined as:-

- The urban core
- The urban periphery
- The rural/peri-urban area

As shown in the plan there is a network of investment nodes and corridors heavily orientated towards a well-defined public transport network. The investment and economic nodes and corridors include new opportunities in terms of, inter alia; tourism, organic and multi growing centres, and the iDube Tradeport logistics platform adjacent to the proposed King Shaka international airport.



Apart from these strategic new development initiatives the IDP focuses strongly on reviving the central area and South Durban Basin which in recent years have experienced varying degrees of degeneration and migration to other parts of the City.

Within the urban edge, densification is promoted to make best use of available infrastructure capacity and minimise the cost of bulk services.

Densification within urban edge

Support for densification along key public transport routes further supports the concept of improved cost efficient service to the community with a particular focus on the poorer community.

Densification along PT routes

Cluster development at nodal points of transport activity further strengthens the efficiency of transport in both the urban and rural areas of the city. In particular, the clustering at rural nodes of social service and economic activity, apart from tourism and agriculture based activities, significantly improves accessibility for isolated and marginalised rural residents.

Cluster development

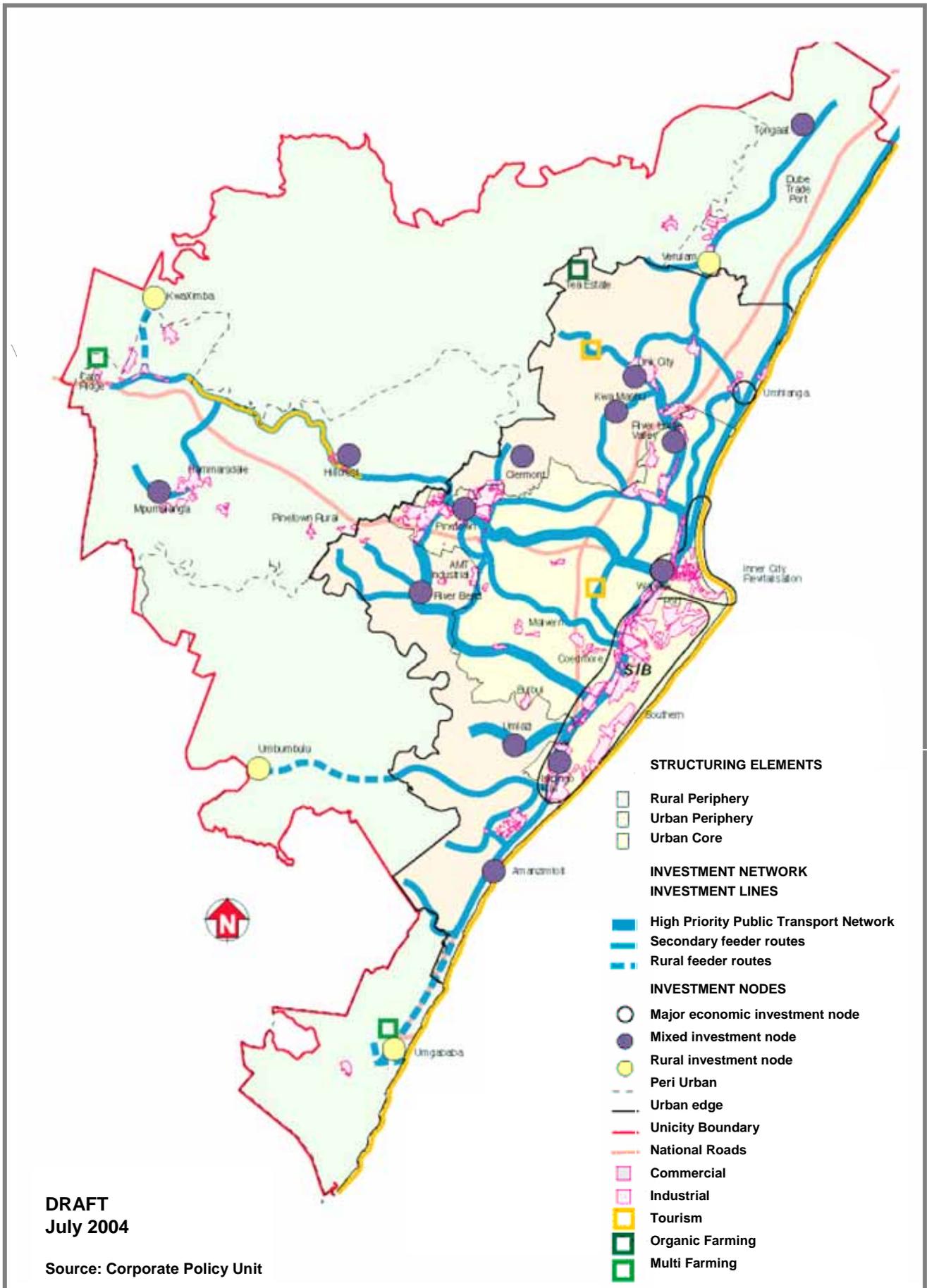


Figure 3.2
Planning and Development Focus
eThekweni Municipality

3.4.1 Area Based Management

Within the municipality there are five separate area based management (ABM) programmes which geographically cover a large part of the municipal area, as shown in Figure 3.3.

The intent of the ABM programme is to enhance service delivery while addressing social and spatial inequalities specific to the uniqueness of each area.

In each ABM there is also a range of transport issues unique to the characteristics of that area. There are briefly highlighted for each of the ABM's as follows:-

- 1) For the **CBD/TRUMP** - the main commercial centre of the city, problems include; inner city congestion, accessibility for pedestrians and all forms of private and public transport related activity, inadequate infrastructure and transport safety and security.
- 2) For **South Durban Basin** - a highly industrialised elongated zone within the coastal corridor, south of the CBD, problems include the excessive use of road as opposed to rail freight transport causing congestion in industrial areas, degradation of residential areas and the environment and the need for improved connectivity between the Port and the industrialised area to the south. In addition, the lack of adequate roads and public transport infrastructure are seen as having a negative impact on the area.
- 3) The **Inanda-Ntuzuma-KwaMashu (INK)** - area comprises mostly low quality housing and informal settlement areas. Transport issues include poor standards of public transport service, safety and security, equipment and infrastructure.

The community is generally poor with limited mobility and accessibility to economic, educational, social and recreational opportunities. Rail investment is needed with an extension of the system to the future Bridge City development node.

ABM's

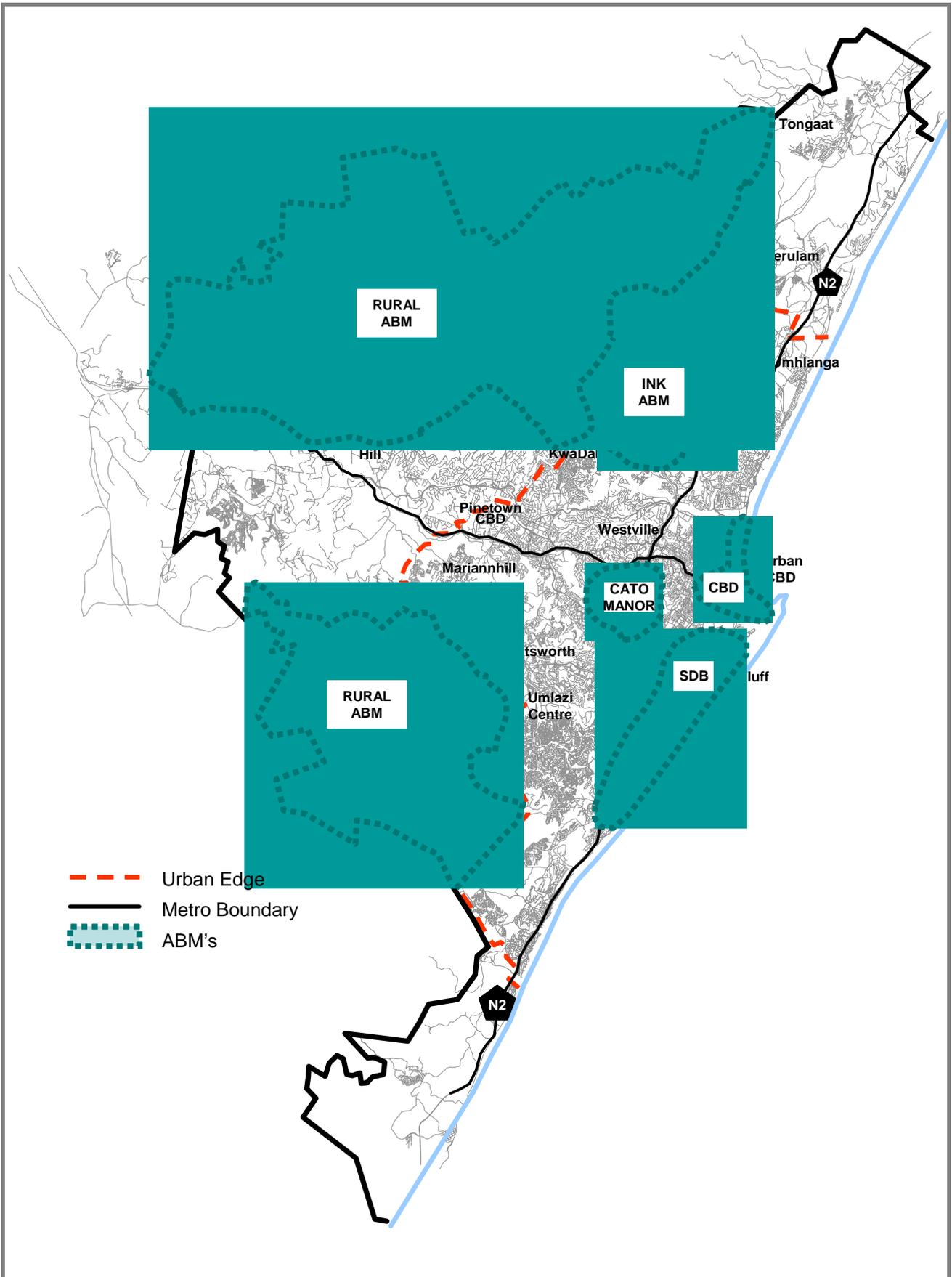


Figure 3.3
Area-based Management (ABM) Areas
eThekweni Municipality

- 4) The **Cato Manor residential** area - is a hilly area, six kilometres south of the city centre. It houses some 90 000 people in low to high income areas with many informal settlements. Although there is a good major road network, public transport service for movement within the community is limited, as is service to significant external destinations.

Access to the regional road system is also seen as deficient, negatively impacting on the potential development of Cato Manor.

ABM's

- 5) For the **Rural Areas on the City's periphery** - the key problems are seen to be limited road access, and poor standards and maintenance of existing roads, impacting on economic and social opportunity for the rural residents.

The current public transport routes and services are also seen to be limited and inefficient and standards of safety are a significant issue.

3.4.2 Other Development/Planning/Service Sectors

The focus and key perspectives of other sectors that impact on and are affected by transport in the municipal area are set out below.

The Economic Development Sector recognises congestion in South Durban Basin (SDB) as well as poor transport infrastructure, and the inordinate emphasis on road over rail freight transport.

Economic development

Attention was also drawn to the importance of strengthening public transport links to the north in support of the future King Shaka international airport and iDube Tradeport.

The Housing Sector has a major impact on the need for and location of transport and in itself is greatly impacted by the provision of transport infrastructure and services.

A major challenge for the housing sector, apart from the extent of the housing backlog is the location issue which perpetuates the problem of large numbers of people being located in parts of the municipal area not easily served by cost-efficient, affordable public transport.

Housing perspective

Currently some 120 000 greenfield sites (6000 ha of vacant land) are needed over the next 12 to 15 years. Although vacant land is in the north of the City most low income employment opportunities are to the south. Clearly these anomalies need to be addressed in a way which will support economic development and affordable transport for the poorer communities.

Cost of land is a major issue and in this regard some creative approaches are needed which take into consideration not only the cost of providing land but the on-going costs of servicing the community in a municipal context.

Plans to pilot these types of projects in appropriate areas of the City need to focus on selected sites that support the High Priority Public Transport Network. These can be evaluated in terms of cost/benefit analyses which consider the travelling needs of the community and the appropriate adjusted subsidisation of land, and if necessary, housing.

The Environment Sector has highlighted a number of generic issues that relate directly or indirectly to transport. These are:-

**Environment
issues**

- development densification and rural development/ accessibility issues impacting on urban sprawl
- protection of open space
- development density thresholds and protection of catchment areas
- use of appropriate modes and increasing use of public transport across all income sectors
- energy efficiency
- pollution reduction
- safe transport of hazardous materials

Clearly the process of integrating land use and transport planning recognises and needs to respond to these issues. Some of these are already being addressed in this current ITP.

The National Port Authority recognises a number of issues related to Durban Harbour activities and the various types of access needed to/from the Port.

Currently the hinterland of Gauteng and over-border destinations account for 60-70% of freight movement to/from the port with very little of this movement by rail.

**Port/harbour
issues**

This is seen as a key issue requiring strategic intervention at national level, as the achievable capacity on the road system could become a constraining influence on development of the Port.

The other main issue of road access capacity is being addressed in part by road projects contained in this ITP.

Airports Company South Africa (ACSA) has considerable property holdings around Durban International Airport. In the event King Shaka International Airport is constructed by year 2010 various options exist for the redevelopment of the existing airport and its environs. Considerable debate on a wide range of optional uses for this land has already taken place; however, there are no clear indications of what land uses should be planned for this point in time.

**Current and future
airport**

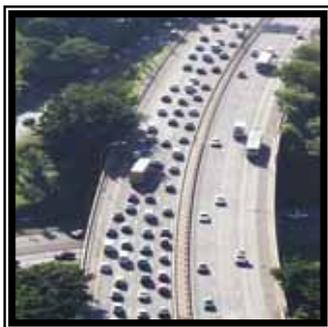
Clearly whatever use is made of this land will have a significant impact on land use and transport needs in the municipal area and will need to be carefully integrated into long term planning for the city.

In the immediate short term new development on the east side of the existing airport requires upgraded access.

4. TRANSPORT DEMAND MANAGEMENT

4.1 Background

Transport Demand Management (TDM) may be described as a system of actions and interventions used to alleviate traffic congestion-related problems through improved management of vehicle trip demand.



In the South African context this translates into a variety of ‘carrot’ and ‘stick’ interventions focussed broadly on increasing the use of public transport in the peak and decreasing the use of private transport.

Clearly the type, extent and severity of actions taken at any point in time needs to be considered against the severity of the problems being addressed.

4.2 Implications of ‘Do Nothing’

4.2.1 Growth Trend

Current estimates place the trend growth in peak period person trips at 22% between 2005 and 2020. This translates into a 50% increase in trips by car and a 3% decrease in trips by public transport.

**Trend growth
in cars**

4.2.2 Implications of ‘Do Nothing’

In the event no actions are taken to address the trend of increased use of private transport and decreased use of public transport a number of services problems will result; these being:-

- a progressive deterioration in all forms of transport services throughout the city, including public transport, freight transport and private transport.
- Road congestion affecting all forms of transport.
- Road based public transport will become increasingly costly and inefficient as sprawling land use patterns continue to dilute the effectiveness of public transport.
- The demand for road capacity will exceed affordability of providing additional road space.

**Impact of
‘Do Nothing’**

- A significant reduction in accessibility and mobility for the public
- Reduced accessibility for freight movement with the concomitant effect of increased cost for commercial and industrial activities and reduced attractiveness for commercial/industrial development in eThekweni.

Overall these and other consequences of a 'do nothing' approach to the current trend will have significant negative implications on key components of the IDP vision, these being:-

- Providing a high quality of life
- Meeting peoples needs
- Growing the economy

4.3 Setting a Target Modal Split

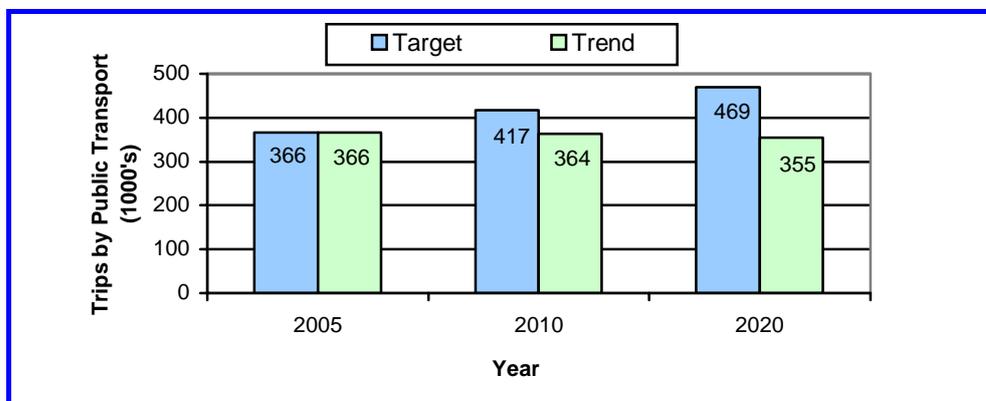


Recognising the current trend of declining use of public transport a more desirable target of reversing the trend and achieving a positive growth in public transport has been set. Reversing the current trend modal split in year 2020 of 42:58 (public: private) to 55:45, will result in an improvement in the current 52:48 modal split.

**Modal split
target**

The following graph shows the effect of achieving this target on peak person trips by public transport.

**Person Trips by Public Transport (1000's)
Peak Period (2 Hours) – Years 2005 to 2020
Trend vs Target**



If the 'target' modal split is achieved during the period 2005 to 2020 a growth in person trips by public transport of 103 000 will result as opposed to the 'trend' decrease of 11 000.

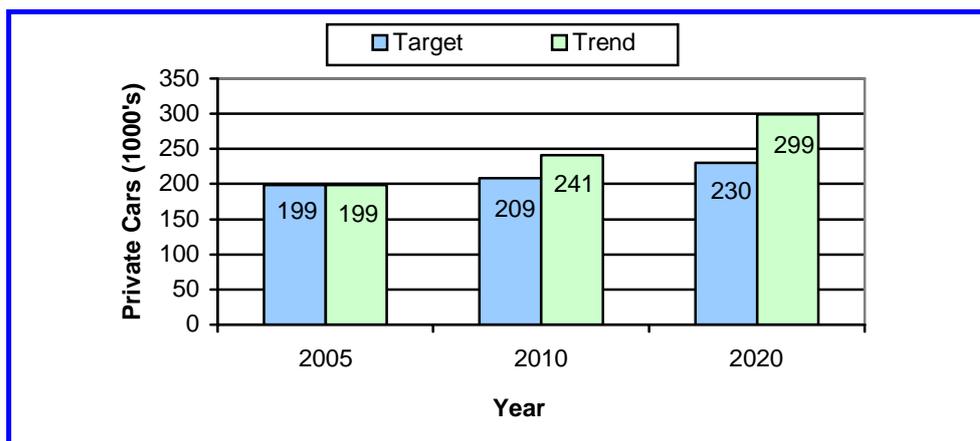
This significant growth of 28% in public transport demand will need to be taken up by the restructured public transport system which is described in Section 5.

The concomitant effect of achieving this modal split will be a significant reduction in demand for private transport by car during peak periods.

As shown on the following graph the increase in demand from 2005-2020 for use of cars in the peak hour alone will reduce from 100 000 cars for the trend to 30 000 for the target modal split.

**Target growth
in cars**

**Private Cars on Road System (1000's)
Peak Hour – Years 2005 to 2020
Trend vs Target**



4.4 TDM Measures

Apart from TDM measures which are needed to reduce the demand for private transport there is a range of concomitant measures needed to retain current public transport ridership whilst attracting new riders from the private transport group. Certain measures are also needed to manage the extent and location of demand for freight transport movement. In many instances issues of system efficiency, effectiveness, safety, affordability and sustainability under-score the need for effective TDM measures. Many of the measures will be introduced on a phased basis and often extend over the short-medium term periods.

There are four main categories of TDM measures identified in the ITP. These include:-

1. **Private transport** measures used to improve system performance, reduce need to travel particularly during peak periods and various restrictive measures which would result in a reduction in travel by private transport.

The restrictive interventions are directed towards active discouragement of the use of private cars. If such interventions are not to be unduly restrictive they must be accompanied by provision of attractive public transport alternatives.

2. **Public transport** contains a range of measures directed towards improving the public transport system and services in order to provide a more attractive service to current riders and to encourage existing private motorists to use public transport. Generally, attracting the private motorists onto public transport would also require a variety of disincentives directed at the motorist such as those identified under the private transport measures.
3. **Land-use development and management** which comprises a range of short, medium and long term measures related to land use planning and management and development guidelines encouraging and supporting efficient transport in a city, with the focus on public transport.
4. **Policy and institutional**, which relates to one or more of the other categories and addresses issues of appropriate institutional arrangements, regulation of transport, pricing, cost recovery and preservation of valuable transport assets.

**TDM
intervention
categories**

4.5 eThekwini's Transport Management Strategy

The ETA's TDM strategy comprises a series of projects defined within the context of various possible measures that could be implemented in the short, medium and long terms. The focus in the ITP however is on a short term period, years 1 to 5. These projects which form a part of the implementation programme in the ITP include the following:-

- | | |
|---|---|
| <ul style="list-style-type: none"> ➤ Upgrade of the rail system and service through continued pursuance of investment in the rail system and infrastructure. | <p>Rail system upgrade</p> |
| <ul style="list-style-type: none"> ➤ Modernisation of the bus and taxi fleets. | <p>Bus/taxi fleet modernisation</p> |
| <ul style="list-style-type: none"> ➤ A CBD prioritised public transport distribution system which would interface with the various major bus, rail and taxi services to the CBD. | <p>PT priority distribution in the CBD</p> |
| <ul style="list-style-type: none"> ➤ A pilot project for co-ordinated, integrated feeder services to rail. | <p>Integrated feeders to rail</p> |
| <ul style="list-style-type: none"> ➤ Upgrade of the area traffic control system (ATC) which in central Durban optimises traffic flows and reduces congestion and related pollution. | <p>ATC upgrade</p> |
| <ul style="list-style-type: none"> ➤ Phased implementation of taxi and bus rank rationalisation in Durban's Warwick Avenue area; developing towards a multi-level Berea station transport interchange. | <p>Warwick Ave taxi/bus rank rationalisation</p> |
| <ul style="list-style-type: none"> ➤ An investigation to identify congestion locations along the public transport routes and evaluate possible options to reduce or avoid congestion | <p>PT congestion alleviation</p> |
| <ul style="list-style-type: none"> ➤ A pilot study for upgrading public transport security at selected rank (s). | <p>Pilot: PT rank security</p> |
| <ul style="list-style-type: none"> ➤ A parking investigation to consider more efficient use of available parking facilities and develop a comprehensive parking revenue/cost recovery programme, taking into consideration the cost of providing and maintaining facilities. | <p>Parking investigation</p> |
| <ul style="list-style-type: none"> ➤ Although not a project as such, policy has been developed for this first ITP giving priority to public transport in the planning and development of the transportation system and in support of appropriate TDM measures to minimise the negative impact of private transport on the urban environment. | <p>Policy supporting public transport</p> |

Completion of pilot projects will undoubtedly give rise to other projects with some of these being incorporated into the TDM strategy at a later stage in the planning process.

5. PUBLIC TRANSPORT

This section of the ITP addresses the full range of plans that form part of the Public Transport Plan (PTP) required in terms of the National Land Transport Transition Act (NLTTA) 2000. This includes:-

- Public Transport Policy
- Current Public Transport Record (CPTR).
- Operating Licence Strategy (OLS)



It also documents an assessment of the current public transport system and outlines the latest proposals for restructuring eThekweni's public transport system based on the analysis in the project: Fundamental Restructuring of Durban's Public Transport System (completed in Year 2000).

Within this context Section 5 sets out a range of implementation strategies and identifies various KPI's for monitoring progress in achieving the public transport goals.

5.1 Public Transport Policy

Public transport (PT) policy is documented within the context of the overall goals for transport in eThekweni Municipality, these being the following:-

- Effective Transport
- Efficient Transport
- Sustainable Transport
- Safe & Secure Transport
- Black Empowerment

Policy for Effective Public Transport is based on promoting public transport over private transport and developing a PT system with services which are customer-focused and needs-driven, recognising the differences between the needs and standards of service required to adequately serve urban and rural areas.

Content

Overall
transport
goals

Within this context, ETA's public transport policy is the following:-

No.1	To identify and prioritise accessibility and mobility needs in terms of market segments, based on categories defined in NDOT's Moving South Africa (MSA) Report.	Accessibility & mobility needs
No. 2	To promote public transport over private transport.	PT over private transport
No.3	To provide an affordable, sustainable PT system in response to the prioritised needs of the market segments, acknowledging the importance of accessibility to social, economic, educational and recreational opportunities, but recognising it is unaffordable to provide the same level of service to users in urban and rural areas.	Affordable standards
	In the rural areas access to employment, the transport needs of learners, and access to health facilities will be prioritised.	Rural accessibility
No.4	To support and develop the capacity of the existing and future consultation structures and enable them to articulate the needs of the different passenger groups for incorporation into a Passenger Service Charter.	
No.5	To implement universally accessible routes and corridors for Special Needs passenger groups, on a phased basis within the mainstream public transport system, subject to resource allocation, and to target the North-South Corridor as the first corridor to be implemented.	Special Needs Groups & Universally accessible corridors
No.6	To ensure that new bus contracts have a minimum percent of fleet designed for special needs access, and all new fixed infrastructure is fully accessible.	Special Needs Fleet
No.7	To manage all modes of public transport service, within a Quality Service Charter which addresses, inter alia, matters of reliability, differentiated levels of service (coverage, hours of service, frequency) convenience and comfort, standards of operation, fare structures, communication and information services, vehicle age and servicing requirements and code of conduct for operator/driver behaviour.	Quality Service Charter
No.8	To support formalisation and re-capitalisation of the taxi industry and to apply various fleet age criteria to all future contracts (subsidised and unsubsidised) for all modes of road-based public transport vehicles.	Taxi Re-cap

Policy for Efficient Public Transport encompasses:-

- system and service efficiency which impacts on reliability and quality of service to the users.
- cost efficiency necessary for sustainability.
- mode efficiency which requires the appropriate use and integration of the various modes.
- Efficient inter-action of the transport/land use system.

Within this context the ETA's public transport policy is:-

No.9	To introduce regulation of all public transport services on a phased basis.	Regulation
No.10	To support the devolution of transport functions for all modes of public transport to the Transport Authority, including rail and bus contracts on a phased basis.	Devolution
No.11	To influence the roll-out of the Taxi Re-cap Programme in eThekweni Municipality once the programme has been finalised by NDOT.	Re-cap roll-out
No. 12	To give preferential consideration to existing operators in over-traded areas or operators adversely impacted by planned service alterations, when allocating new licences for new services.	Allocating new licences
No.13	To remove duplicate, subsidised services in direct competition. No new license applications will be approved where duplication exists except for the selected, preferred mode mix.	Competition
No.14	To allow for duplication where differentiated services are being offered.	
No.15	To position the modes within an integrated system on the basis of functionality and on the basis of the most cost-effective mode for corridor capacity requirements.	Role of modes

No.16	To facilitate public transport operator empowerment enabling operators to reposition in the industry and participate in tendered contracts.	Empowerment
No.17	To reduce system costs and subsidy while providing an acceptable level of service to all sectors of the community.	
No.18	To recognise the need for subsidy but to change the basis for subsidy from operator and system-deficit subsidy to targeted user-side subsidy which does not support and entrench long distance trips but addresses basic social needs of various groups in selected locations.	User-side subsidy
No.19	To promote integration and co-ordination between all modes on a system-wide basis to achieve:- ➤ economies of scale ➤ reduced costs ➤ increased load factors	PT Service integration
No. 20	To promote infilling and densification along public transport corridors and major public transport routes within acceptable environmental limits.	
No.21	To direct employment opportunities, mixed land use and high-density residential development into the high-utilisation public transport corridors, and nodes.	
No.22	To discourage urban sprawl where public transport services are inadequate, including careful evaluation of any major trip-generating development outside the urban edge.	
No.23	To promote Durban CBD and the South Durban Basin as two dominant nodes of transport in the strategic North-South Corridor.	PT / land-use integration
No.24	To encourage re-development around stations and major mode interchanges in the form of major trip generating land use and informal and emerging economic activities.	
No.25	To steer public investment for secondary schools, hospitals, clinics, police stations and various essential social services towards development nodes along significant transport corridors.	

Policy for Sustainable Public Transport is also multi-faceted and the ETA recognises the need for the public transport system to be financially, technically, socially and environmentally sustainable. It is also recognised that the system needs to be sustainable in terms of access to adequate skills resources, maintainable within the above considerations and sustainable in terms of complimentary and self-reinforcing support between the public transport system and land use which assists in creating a stable investment environment.

In this regard the ETA's public transport policy is:-

- No.26** To identify and promote private-public partnerships in matters related to the provision, operation, maintenance and monitoring of public transport systems, service and related facilities.
- No.27** To apply user-pays principles where appropriate.
- No.28** To support the most efficient mechanisms for raising funds.
- No.29** To ensure capital works expenditure programmes do not compromise maintenance standards, by identifying and programming cycles of fleet and system recapitalisation and maintenance.
- No.30** To rationalise roles and responsibilities of institutional and administrative structures involved in funding of capital works and maintenance in order to reduce administrative costs.
- No.31** To support the broader IDP initiatives in capacity building and training, ensuring the requirements of transport are adequately met.
- No.32** To ensure the user cost for services provided is affordable, within defined limits, for all sectors of the Community. In this regard, the intention is for the relevant authority to only approve applications for justifiable fare increases, for any mode, after due consultation.
- No.33** To involve the community through user forums in considering various aspects of service provision.

PPP's

Capital & Maintenance Expenditure

Skills resource

Social sustainability

No.34 To promote public transport over private transport through various measures including implementation of high occupancy vehicle (HOV) facilities.

**Public
transport
over private**

No.35 To investigate phasing of appropriate car restraint measures.

No.36 To promote non-motorised transport (NMT) including walking and cycling.

NMT

No.37 To encourage and initiate investigations on use of environmentally friendly vehicles and energy.

No.38 To introduce energy efficient measures for transport operations and infrastructure.

The ETA's **Policy for Safety & Security in Public Transport** considers issues such as:-

- the integration of policy with appropriate Education, Engineering and Enforcement programmes as part of the ETA's Safety Plan
- standards of policing in rural and urban locations
- enforcement of the operator/driver code of conduct and standards of service as per the Quality Service Charter

In this regard the ETA's public transport policy is:-

No.39 To promote passenger safety in respect of PT operations at ranks, terminals and on board PT vehicles.

Safety

No.40 To ensure passenger security at ranks, terminal facilities and on board PT vehicles.

Security

Black Empowerment in Public Transport is a major goal in the provision and operation of eThekweni's public transport system and related services.

In this regard the ETA's policy is:-

- No.41** To support the City's goal of equity which will include:-
- creating opportunity for SMME's
 - open tendering on any contracted PT routes
 - structuring contracts and requirements for contractors to include PDI operator sub-contracts
 - providing rules for contract adjudication in respect of PDI submissions
 - empowering existing and potential entrepreneurs through training
 - providing support in the process of raising finance within funding and legal boundaries (eg. guarantees for financing of vehicles)
 - creating commercial investment opportunities
 - creating infrastructure management opportunities/ contracts (eg. cleaning, security, rank management)

Equity

5.2 Current Public Transport Record (CPTR)

5.2.1 Extent of Survey

A comprehensive CPTR has been prepared for eThekweni Municipality for the three hour am peak period (05h00-08h00) and where demand warranted the three hour pm peak period (15h30-18h30). Within this context surveys covered all public transport routes and services throughout the 2300km² Municipal area, comprise 8 basic rail routes radiating from Durban and 1630 and 1730 bus and taxi routes respectively identified as part of the system operating from approximately 630 bus and taxi terminal points.

5.2.2 Content of the Survey

On the supply side information was obtained on route locations, length, fare structures and timetable departure times and service capacity.

At each terminal and rank and at selected holding areas information was captured on layout, capacity and amenities provided.

On the demand side, information by mode and route was collected on passenger loadings and queue times and maximum vehicle accumulation at loading points.

**Demand-side
information**

5.3 The Existing Public Transport System

5.3.1 System Description

Figure 5.1 shows the existing system of public transport nodes and services.

The commuter rail component of the system comprises a north-south line following the coast from beyond the limits of the Municipal area to both the north and south with three spur lines serving the major residential areas of Umlazi, Chatsworth, and KwaMashu. The mainline into the hinterland also carries commuters in the east-west direction within the Municipal area and a circuitous line connects Pinetown CBD to Rossburgh Station on the north-south line.

There is also a spur line along the south side of the harbour to the lower Bluff which is largely undeveloped.

The taxi and major bus route system provides extensive coverage throughout the metro area including services parallel to and in direct competition with most of the rail services. In most locations the bus and taxi services follow similar routes except in the Outer West, west of Pinetown. In these areas most of the routes are taxi routes with limited or no bus service, with the exception of bus service to Mpumalanga from Durban and the Pinetown areas.

**Bus/taxi
system**

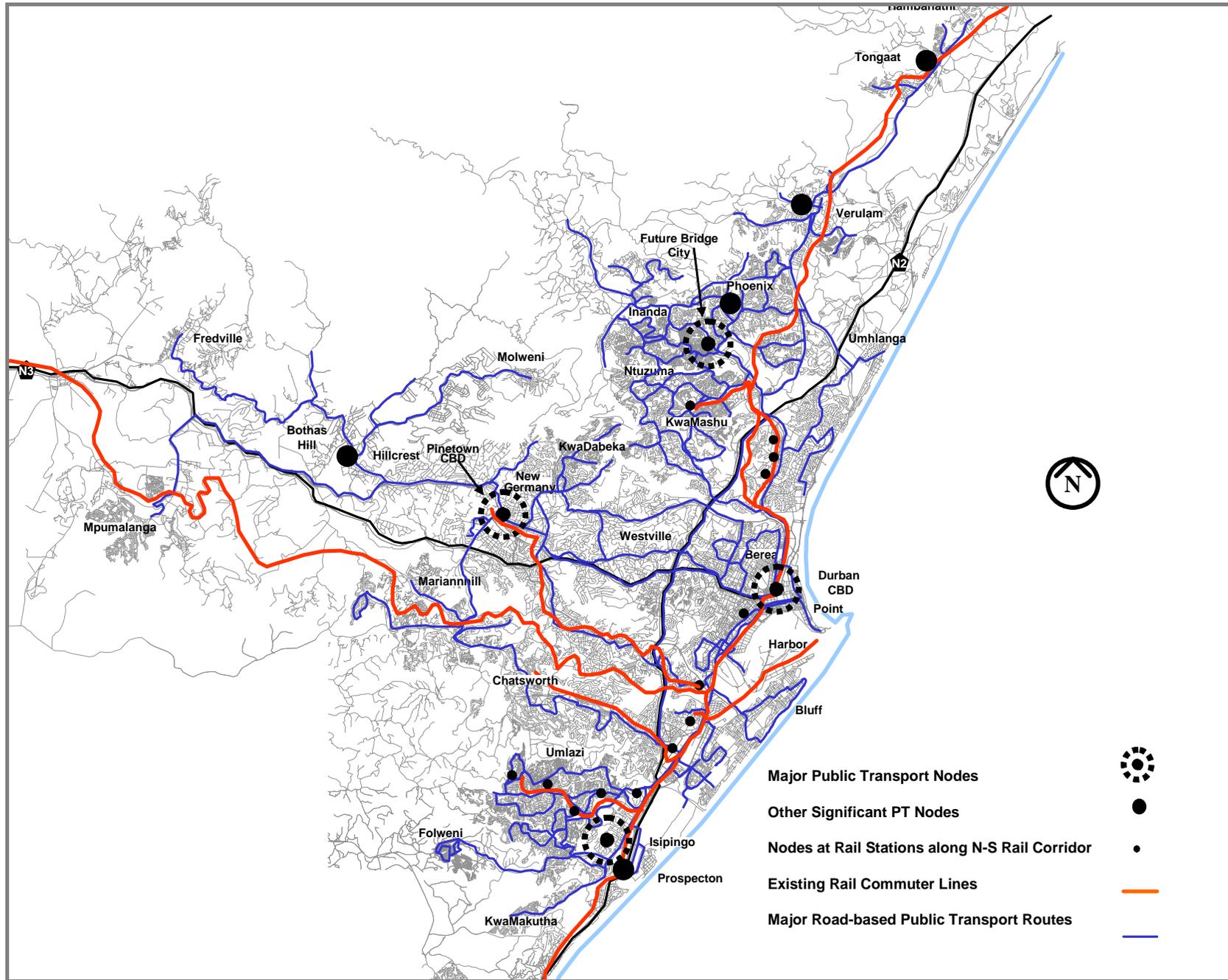


Figure 5.1:
Existing eThekweni Public Transport System

The metropolitan area has four major public transport nodes with a number of other nodes of local significance. The major nodes are located at:-

**Major nodes
along N-S
corridor**

- Isipingo in the south
- Durban CBD
- Bridge City to the north
- Pinetown to the west



Isipingo in the south and Bridge City (which is a key future transport node in the north) define the limits of the major north-south coastal public transport corridor. Durban CBD located in the middle of this corridor is a major attractor for trips from both the north and the south.

The last major node is Pinetown Central which is largely a hub for services from the Outer West and industrial and residential areas to the south of Pinetown central and to the north-east.

Pinetown node

Although Pinetown is a major node it is not connected by a major corridor to any other node of significance. Consequently, the only corridor carrying sufficiently high volumes of commuters to be defined as major public transport corridor is the north-south coastal corridor between Isipingo in the south and Bridge City in the north.

Other public transport nodes of significance include Prospecton, an industrial area south of Isipingo, Hillcrest a sub-regional centre to the west and to the north, Phoenix town centre, Verulam, Tongaat and a developing node around the Umhlanga town centre.

**Other
significant
nodes**

5.3.2 Existing System Characteristics and Issues

The existing rail system is characterised by decreasing levels of service and high levels of subsidy support, which is currently provided by the National Department of Transport. Rolling stock is dilapidated and train sets that become unsafe have to be removed from service. Parts of the signal system are antiquated and raise concerns over reliability and operating efficiency.

**Declining rail
system**

Many of the eight rail lines operate with low passenger loads which impact on economic efficiency.



Consequently, the fundamental rail issues centre around sustainability and the need for major capital investment to provide a rail system and service which can form a key component of a multi modal public transport system which is attractive to current and future public transport users.

The existing bus service on a system comprising some 1 400 uni-directional routes is provided by approximately 200 operators in a mix of subsidised contracts and unsubsidised services.

Currently there are seven bus contracts covering approximately 70% of the route system in the Municipal area. Some 170 unsubsidised bus operators in thirteen associations along with approximately 20 independent operators provide service on the remaining 30% of the route system. At this time there are no unsubsidised commercial contracts.

Over recent years efforts to contain rapidly escalating subsidy accompanied by reducing levels of service have been addressed in part by formal subsidised bus contracts. The most recent of these is the privatisation of Durban Transport which accounts for over one third of the bus fleet in the Municipal area operating on approximately half of the bus routes.

Bus service issues



Notwithstanding these changes peak passenger load factors on many bus trips are low. Outside of subsidised service contracts operators experiencing decreasing ridership and profit margins are unable to upgrade their fleet and struggle to maintain service levels with aging vehicles.

Major issues around the bus system and service are that bus and rail services operate in direct competition; unsubsidised bus services are deteriorating and many bus trips operate with low passenger loads even in peak periods.

Taxi service is provided by 120 taxi associations serving the area and on completion of the provincial taxi data base an accurate figure for the number of operators will also be known.

Generally the taxi industry operates in direct competition with bus and rail service throughout the Municipal area which impacts on economic, sustainability of the public transport system overall. Taxis are unsubsidised and overtrading is an issue. Low profit margins in some areas limit the ability of operators to recapitalise their fleet. Consequently reliability and safety are fundamental concerns.

Taxi service issues



Competition for new routes or service which leads to aggressive confrontation and violence, and ongoing competition with subsidised public transport services also reduces the profitability of subsidised services (bus and rail) which will cause pressure for increased subsidy in future bus contracts.

Against this background proposals have been developed to rationalise and restructure the public transport system and services in order to address the fundamental issues highlighted above.

5.3.3 Metered Taxi

Although in South Africa metered taxis are not a commonly used form of transport by the local population the industry in eThekweni is nonetheless well established and performs an essential role in the transportation of both residents within and visitors to eThekweni.

PT system proposals

There are approximately 150 operators in eThekweni operating some 400 metered taxis. The size of the operations varies considerably from the largest with a fleet of 45 metered taxis to the single vehicle owner-driver. Most operators belong to one or more of three metered taxi associations, each with a membership of 70-80 operators.

There is also an estimated 60 permanent metered taxi drivers who do not have permits but are known to operate in the Inner City area as well as moonlighters that operate mainly at night and target the low end of the market. No surveys of these metered taxis without permits or the illegal metered taxis have ever been undertaken and therefore the exact numbers are difficult to estimate.

Metered taxi services are available on a 24 hour basis with the most popular routes originating in the CBD with the following destinations.

- Durban International Airport
- Pavillion Shopping Centre
- Gateway Shopping Centre
- Berea/Overport
- Sun Coast Casino
- Internal within CBD
- Residential suburbs

**Major
routes/services**

There are a total of 50 designated formal metered taxi ranks in the Inner City area containing about 150 bays. There is also a major rank at Durban International Airport that contains 8 bays. Most of the Inner City ranks are on-street parking areas that have been designated as metered taxi ranks. None of the metered taxi ranks have shelters or ablution facilities.

Issues around the metered taxi industry were raised in the National Department of Transport's "Position Paper on the Regulation and Democratisation of the Metered Taxi Industry" in October 2002. These included:-

- Registration and demarcation of the industry
- Clear identification of services rendered
- Law enforcement
- Institutional structuring

The paper also highlighted recommendations to address these issues however apart from legislative and regulation amendments at the national and provincial level none of the institutional or operational recommendations have been formally implemented.

The KwaZulu-Natal Department of Transport at present does not have any policies or strategies for the metered taxi industry; however, a Provincial Bill has been approved by the KwaZulu-Natal cabinet, which gives the Minister of Transport the power to restructure all modes of land transport including metered taxis.

5.4 The Future Restructured Public Transport

The proposed future public transport system for the eThekweni municipal area, Figure 5.2 is based on providing a passenger-orientated, demand driven, economically efficient and integrated system in line with policy guidelines documented in Section 3 of this report.

Key aspects of the proposed system are as follows:-

- Use of the most appropriate public transport modes for service effectiveness and cost efficiency in each part of the system.

This interprets into rail providing service in the heavy demand north-south coastal corridor between the transport interchange node at Bridge City in the north and a similar node at Isipingo in the south. The implication of this strategy would be to extend the commuter rail line from Duff's Road Station to Bridge City a distance of approximately three kilometres. Existing spur lines from the north-south line into the residential areas of Umlazi in the south and KwaMashu in the north would form a part of this corridor.

Proposed PT system

- Relocation of road-based public transport services in direct competition with rail in the high volume north-south coastal corridor.

This interprets into a number of subsidised bus as well as unsubsidised bus and taxi services being relocated or removed from the system, in a phased process using procedures from the City's policy framework.

- Where appropriate, the retention/upgrading of rail supported by integrated feeder systems, in the lower demand corridors, where service and cost benefit analyses justify such systems.
- An attempt using a pilot project to attract ridership back onto the Chatsworth line which is currently under-utilised but has high potential for ridership.
- A combination of bus and taxi modes in other parts of the public transport system with priority for these services where appropriate.
- New or upgraded infrastructure where needed in the system.
- Support for nodal development through the integrated design of major transport transfer-interchanges with intense land use development at the nodes.

Chatsworth rail pilot

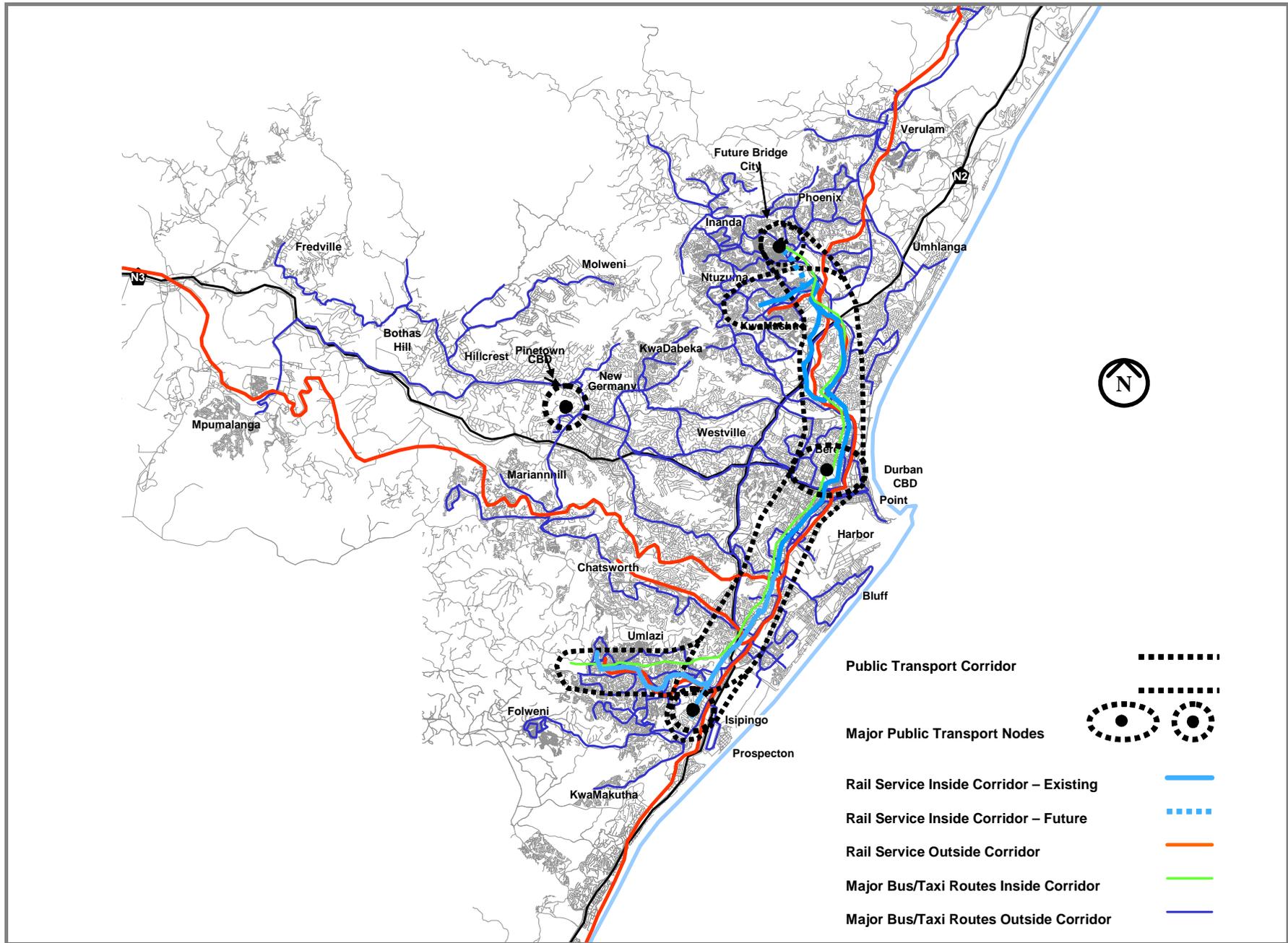


Figure 5.2:
Proposed Public Transport System
Strategy with North-South Corridor

- Support for densification along existing and potential future corridors through development of high levels of accessibility to public transport within the corridors.
- Phased development of universally accessible corridors including special needs groups.
- Various bus/taxi feeder/distribution services, integrated with rail, at key transfer locations along the north-south rail corridor.
- In the central Durban area, a CBD distribution system providing easy access to Berea and Durban stations, which system could be extended to the Berea area.

5.5 Supporting Land Use Strategies

Apart from the system strategy described in 5.4 there are a number of inter-related land use strategies that support the development and performance of an effective, efficient and sustainable public transport system. These strategies are focussed around the High Priority Public Transport Network (HPPTN) shown in Figure 5.3. This network comprises the high demand North-South Corridor between the Bridge City transport node in the north and Isipingo in the south, with connections to KwaMashu in the north and Umlazi in the south, and the lower demand east-west public transport routes to the regional transport node in Pinetown and to Malvern Centre with connections to Cato Manor. Whilst the high demand-driven North-South Corridor carries 25 000-30 000 bi-directional passengers by all public transport modes in the peak hour the dominant east-west routes to the Pinetown area carry less than 10 000 bi-directional peak hour passengers.

Notwithstanding, these key public transport routes, are important segments of the priority public transport network which where possible should be supported by appropriate land use development.

Spatial strategies identified in a report entitled:-

“A Spatial Strategy in Support of the High Priority Public Transport Network - March 2002”

are focussed firstly on protection of current transport ridership on the HPPTN and secondly increasing ridership.

These strategies include:-

1. Protecting existing employment opportunities
2. Maintaining the quality of high value investment office retail, residential and tourist areas
3. Discouraging the development of major employment opportunities outside the HPPTN area
4. Stimulating higher employment and residential densities
5. Renewing areas around major stations and modal interchanges as high density residential, office and retail uses
6. Steering public sector investment (schools, clinics, hospitals and police stations) towards nodes on the HPPTN

5.6 Operating Licence Strategy

5.6.1 Purpose of OLS

The primary purposes of the OLS developed from analysis of the CPTR data are:-

- to act as a framework for the eThekwini Transport Authority (ETA) to give direction to the Operating Licence Board (OLB) on the issuing/amendment or withdrawal of taxi or bus operating licences.
- to provide a tool for the ETA to implement the requirements of the Public Transport Plan.

Purpose of OLS

5.6.2 OLS Policy

No. 1 The responsibility for determining the number of public transport licences required vests with the Transport Authority.

Allocation of licences

No. 2 As per the requirements of the NLTTA 2000, no new operating licence will be issued for a period longer than five years, except where the licence is issued pursuant of a permit allowed for in terms of provincial legislation, as in the case of a seven year subsidised bus contract.

Licence validity period

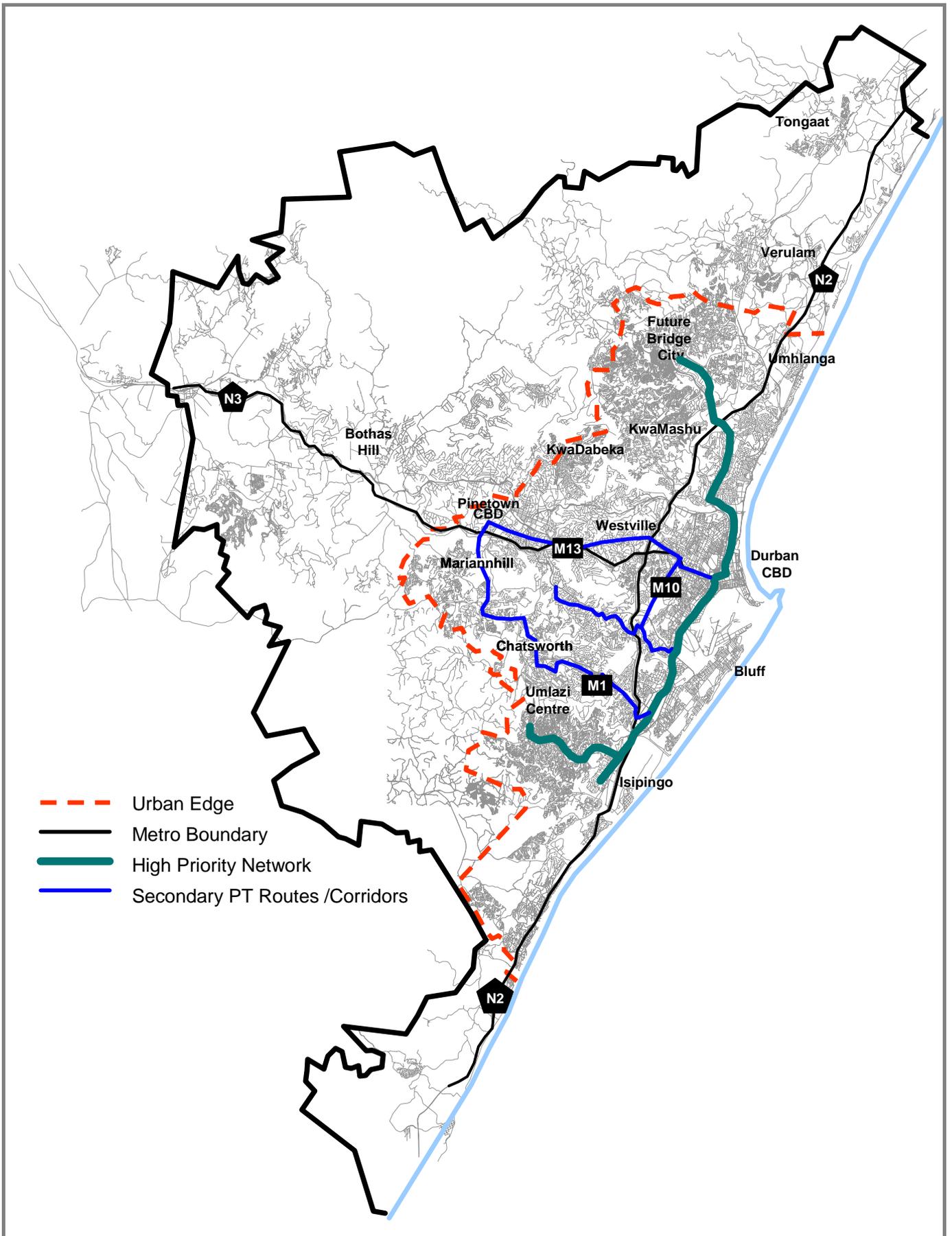


Figure 5.3:
High Priority Public Transport Network
Within Urban Edge of eThekweni Municipality

No. 3 The ETA will not support applications for the transfer of an operating licence from the holder of the operating licence to another person, for which the holder of the operating licence has been providing the service for less than a period of one year.	Transfer of licences
Where transfers are permitted the first option for purchase belongs to the ETA.	
No. 4 The ETA will make its recommendation and any representations it considers fit, having due regard to the Passenger Transport Plan and any other relevant investigations carried out, and submit them to the OLB within the required period.	Preparation of recommendations
No. 5 Except on the conversion of a taxi permit to an operating licence, no person has a right to be issued with an operating licence. An operating licence in respect of a minibus taxi type service may only be granted to a person who in terms of the NLTTA is a registered member or non-member of an association or applicant who has been granted a certificate contemplated in section 113(2) of the NLTTA	Registered membership for minibus taxi licence
No. 6 Applicants for bus and minibus taxi licences must show proof of or the ability to secure passenger liability insurance from a recognised insurer.	Passenger insurance
No.7 A person applying for a new minibus taxi operating licence, on an existing route, must belong to the same association(s) as the operators currently providing service on that route.	Membership per route
No. 8 All vehicles must comply with SABS or SANS standards and specifications.	SABS / SANS vehicle standards
No. 9 Where the holder of an operating licence wishes to replace the vehicle that is specified in the operating licence with another vehicle with the same passenger capacity, the holder must apply to the Board for approval on the basis that the replacing vehicle meets all requirements in the original licence and the quality of service is not affected.	Vehicle replacement
No.10 Special equipment (eg. Special needs access) attached to approval of a licence must be installed and operational before commencement of service.	Special equipment

No.11 The granting of an operating licence is conditional upon the necessary rank permits being obtained and annually renewed and if a rank permit is not renewed the operator must cease to operate on that route.	Ranking facilities
No.12 It will be the responsibility of the minibus taxi licence applicant to identify suitable holding space in a location acceptable to the ETA.	Holding space
No.13 Subject to other conditions being met consideration of licence approvals for services between defined origin-destinations will be made based on levels of demand in relation to available capacity as set out in the full OLS.	Demand criteria
No. 14 A service timetable or frequency of service must be attached to licence applications.	Timetable and fare structure
No. 15 Special conditions regarding fares must be attached to licence applications.	Attachment of fore conditions to licence

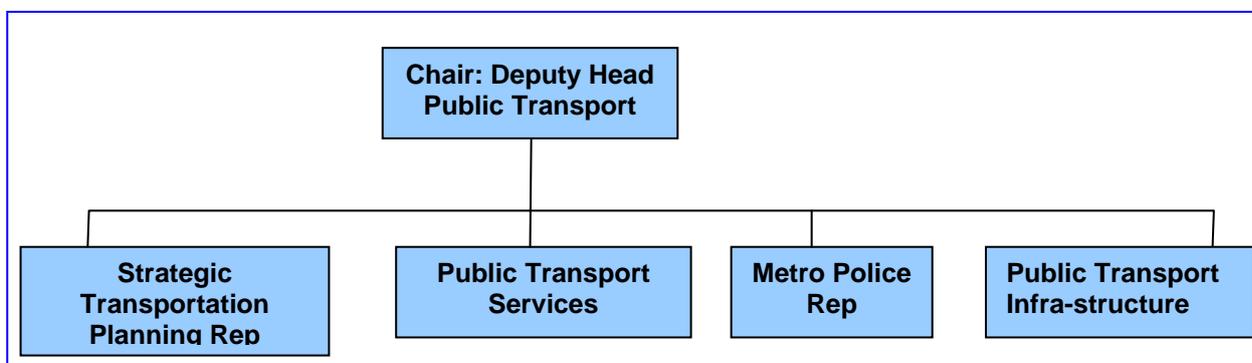
5.6.3 Licence Application and Approval

The approval process involves the Provincial Operating Licence Board (OLB), the KZN Department of Transport (KZNDOT) and the eThekweni Transport Authority (ETA).

Currently in terms of KZNDOT requirements the applicant is responsible for demonstrating demand and need for service as well as the preparation of a business plan demonstrating financial viability. The KZNDOT requires the proposal to be submitted in terms of a proforma.

The ETA are responsible for making recommendations on the application to the OLB who are supported by KZNDOT in the evaluation process.

The ETA's licence application adjudication structure is as shown below.



5.6.4 Public Transport Enforcement Strategy

Public transport enforcement is recognised as a specialised area of law enforcement and the eThekweni Transport Authority has entered into a service agreement with the eThekweni Metropolitan Police Service for this purpose. In terms of this agreement the police services provide a dedicated force for enforcement which is directly accountable to the ETA in terms of a Service Agreement.

**PT
enforcement
strategy**

In support of enforcement the development of a Quality Service Charter and Passenger Service Charter will be integrated into the enforcement strategy framework.

**Quality Service
and Passenger
Service Charters**

5.6.5 Operating Licence Strategy Analysis

A comprehensive analysis of the CPTR was carried out in the preparation of the OLS.

In evaluating the PT system performance several parameters were considered in relation to individual bus and taxi routes in the system. These were:-

- Utilisation rate
- Passenger volume
- Frequency/headway and waiting time
- Fleet factor with average speed and turnaround time

5.6.6 Categories of Evaluation

Three categories of evaluation were carried out in preparing the OLS; these being:-

- Corridor analysis of movements between significant residential and employment areas.
- Individual route evaluation of performance with recommendations.
- Taxi association evaluation to assist in consideration of applications by associations not specifically for an individual route.

**Categories of
OLS evaluation**

5.6.7 Individual Routes Evaluation

The area to area corridor analysis provided a good overview of service utilisation throughout the Municipality but it was not detailed enough to consider applications for route licences. The OLS therefore evaluated each individual route giving comments and recommendations for each.

In respect of the taxi industry overtrading was evident, therefore recommendations only supported the issuing of new licences in proven cases of shortage of capacity on a particular route.

Of the 1064 taxi routes with survey data, only 103 were possibly eligible for additional licences, depending on available rank capacity. In respect of the possible use of larger vehicles, 144 routes had volumes appropriate for 35 seaters and 15 for standard buses.

**Minibus taxi
evaluation**

Currently five bus contracts cover roughly two thirds of all bus services and their utilisation is slightly better than all services; utilisation of non-contract services being 70%. The number of peak hour trips per contracted route however averages a low 1.85 which reflects a low frequency of service. For this reason, many routes would be better served by 35 Seaters and even 18 Seaters, to provide better frequency for passengers.

Bus evaluation

Based on the analysis of contract and non-contract bus service, the following table shows the number of routes where alternative lower capacity modes are justifiable for a better service to passengers and/or additional licences could be warranted.

Operator	Surveyed Routes	Suitable for		Need More
		35 Seater	18 Seater	
Contract Operators	693	321	263	23
Non-contract Operators	329	108	118	10
All Operators	1022	429	381	33

Overall, rail service is badly underutilised. The largest number of peak hour passengers on any one service is 7000, from Umlazi to Durban in the morning peak. Even so, average utilisation on this route is only half of capacity. Only 3 other routes with more than one train have utilisations over 50%. Clearly this highlights the need for the various public transport modal, system and support strategies to support rail in strategically located parts of a fully integrated system.

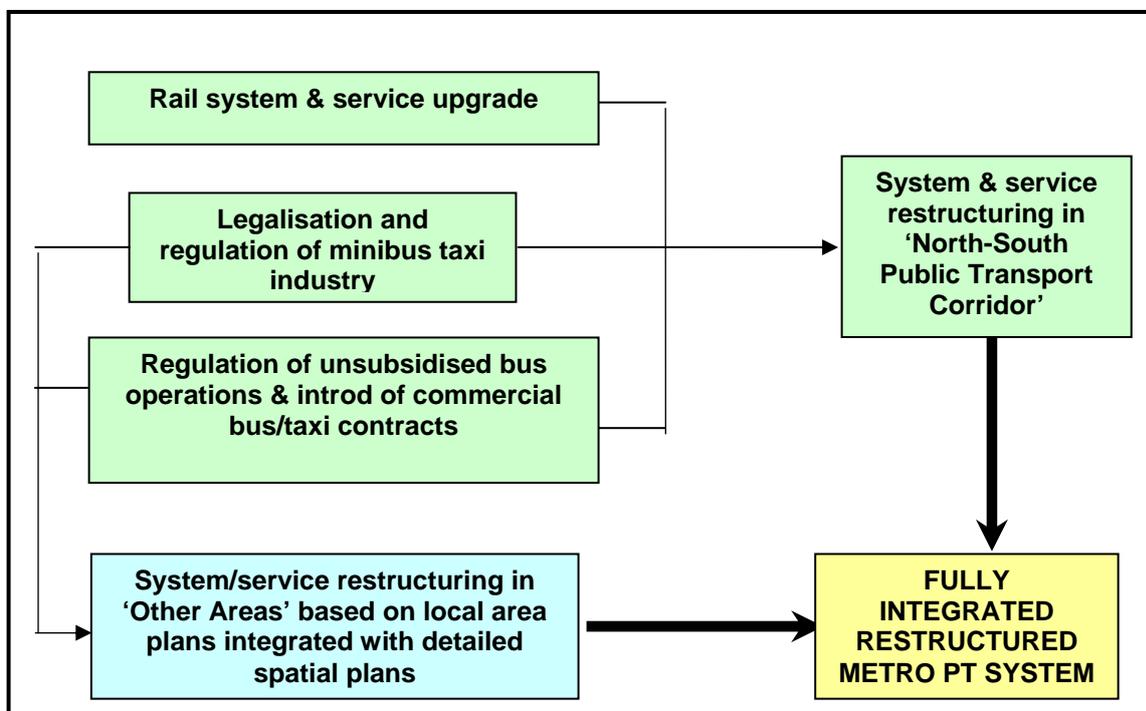
5.7 Public Transport Implementation Strategy

5.7.1 Roll Out Context

The following public transport implementation strategy is documented within the context of modal strategies and key aspects of the Public Transport Plan (PTP). In effect, it catalogues the recommended initiatives and projects forming part of the PTP.

The following figure gives a broad context to the roll-out of the long term restructured public transport system for the eThekweni Municipal area.

Figure 5.4: Roll-Out Strategy for the eThekweni Public Transport system



For the public transport plan to be properly integrated with the full range of land use development strategies, the development of such strategies should run concurrently. The Spatial Development Framework (SDF) which interprets the development strategies in geographic terms also provides the framework for the preparation of detailed local area spatial plans. As these plans are being developed, local area public transport plans can also be prepared and integrated as part of a parallel process.

**Integration
with land use
strategies**

The following sections identify the range of strategies that comprise the eThekweni Public Transport Plan. Each of these is described in some detail in the main report.

5.7.2 Rail Strategy

The following are the four key strategies which comprise the Rail Strategy for the eThekweni Municipal area:-

Strategy 1:	Rail Investment for the North-South public transport coastal corridor	Rail investment
Strategy 2:	New rail spur line to Bridge City	New spur line
Strategy 3:	Marketing of North-South Public Transport Corridor System	Marketing N-S corridor
Strategy 4:	Kings Park Rail Station	Kings Park Station

5.7.3 Bus Strategy

The following are the four key strategies which comprise the Bus Strategy for the eThekweni Municipal area:-

Strategy 1:	Feeder-distribution services as integral part of the N-S public transport corridor system	Feeder/distributor services
Strategy 2:	Remove/reposition bus services in direct competition with rail service in N-S public transport corridor	Services in competition with rail
Strategy 3:	Rationalise bus system and service contracts in areas removed from the N-S corridor	Rationalise bus system
Strategy 4:	Improve infrastructure and operating conditions of existing bus services	Infrastructure upgrades

5.7.4 Minibus Taxi Strategy

The following are the six key strategies which comprise the Minibus Taxi Strategy for the eThekweni municipal area:-

Strategy 1:	Develop the OLS for all route-based operations and implement service changes	Minibus taxi OLS
Strategy 2:	Regulate and control minibus taxi operations in the eThekweni Municipal area	Regulation

Strategy 3:	Feeder-distribution services as integral part of N-S public transport corridor system	Feeder/ distribution services
Strategy 4:	Remove/reposition minibus taxi services in direct competition with rail service in N-S transport corridor	Services in competition with rail
Strategy 5:	Rationalise minibus taxi routes and services in areas removed from the N-S Corridor	Rationalisation
Strategy 6:	Improve infrastructure and operating conditions for existing minibus taxi services	Infrastructure upgrades

5.7.5 Other Key Strategies

In support of the modal system strategies for the proposed restructuring of the public transport system there are numerous related strategies essential to meet the various transport objectives highlighted at the beginning of this report. These are summarised below.

The Non-Motorised Transport (NMT) Strategy recognises the benefit and need for animal-drawn transport in rural areas but in this ITP focuses on possible cycle projects.

The Special Needs PT Strategy, provides for not only those with physical challenges, but children, the elderly, pregnant women, the illiterate and foreign tourists unable to communicate in any locally used language. This strategy includes developing the N-S Corridor as a universally accessible corridor, providing accessible buses in new bus contracts, extending the SUKUMA project type of service or similar service with retro-fitted buses to other areas and training bus drivers on operating procedures for embarking, disembarking and carrying passengers with special needs.

The Inter-modalism Strategy addresses inter alia; through ticketing, security systems and information systems.

The TDM Strategy involves investigating potential sites for a variety of TDM measures and implementing CBD public transport priority measures in the short term along with any other short term measures identified.

A Bus Subsidy Strategy will include a pilot project to target subsidy towards the urban poor.

A Land Use Restructuring Strategy will focus on implementing a pilot project for subsidising a low income housing project close to employment opportunities and, conveniently located to public transport, resulting in reduced need for expenditure on essential services.

A Customer Focus Strategy will address the need for a Passenger Service Charter and Quality Service Charter along with introduction of a Customer Care Centre.

A Tourism Strategy will encompass the phased implementation of a tourist focussed "People Mover" system in the CBD along with other possible public transport initiatives to address the needs of FIFA World Cup 2010.

5.8 Monitoring and Key Performance Indicators

Part of the IDP vision includes *"...growing the economy and meeting peoples needs so that all citizens enjoy a high quality of life with equal opportunities..."*

Public transport's contribution to achieving this vision requires performance on the delivery of the PTP, as well as performance of the system in achieving the various public transport goals. Consequently, performance monitoring using various key performance indicators (KPI's) is an essential part of the delivery of the PTP.

KPI's specific to achieving each of the goals for public transport include:-

Effective Public Transport, measured in terms of:-

- No of complaints/1000 passengers per month
- Peak period modal split to public transport
- Kilometers of roads used for PT per hectare in rural areas
- % of households spending more than 10% of disposable income on public transport
- No of corridors with fully accessible P.T.
- % of contracted bus fleets fully accessible

Efficient Public Transport, measured in terms of:-

- Average travel time to work for all public transport commuters
- Average no of passengers carried per subsidised bus per day
- Average number of rail passengers per service per day
- % of minibus taxi fleet re-capitalised

- % of capital projects delivered within time and budget
- % fully legal public transport operators

Sustainable Public Transport, measured in terms of:-

- % of services operating with a fixed route permit
- Development density along PT priority corridor(s)

Safe and Secure Public Transport, measured in terms of:-

- Reported incidents monthly per 10 000 passengers
- Various KPI's from Road Safety Plan

Black Empowerment in Public Transport, measured in terms of:-

- Number of contracts and value by type of contract
- % of budgets allocated to PDI firms

6. MAJOR ROAD PROPOSALS

6.1 Introduction

The planning and provision of roads in eThekweni is seen as part of an integrated programme for delivery of a holistic transport solution for the Municipal area. In developing a prioritised roads programme these differing needs of the various stakeholder groups are recognised and considered within the context of the development imperatives expressed in the IDP vision; these being:-

- Meeting peoples needs;
- Growing the economy.

IDP focus

Further, within the framework of national transport policy, embraced within the IDP, the roads programme responds to the directive to prioritise the needs of public transport commuters over the use of private motor vehicles.

The roads programme in this section of the ITP is discussed under five categories. In many instances projects can be identified within more than one category which increases the overall benefit of such a project. The five categories are:-

1. Accessibility

Relates to upgrading that improves access primarily to isolated rural and peri-urban communities or new routes required to link areas of greatest need to well resourced areas.

**Roads
programme
categories**

2. Freight

Focuses on projects which will improve the safe, efficient movement of heavy vehicles into and through the City and accessibility to major freight generators and attractors.

3. Economic Impact Focus Projects, Bottleneck Elimination and Road Safety

The focus of this category is to ensure that effective functioning and planned growth of key economic activity centres within the City are not constrained by bottlenecks in the road system.

4. Public Transport

The prioritisation of public transport over the private motorist highlights the need for certain roads projects to provide additional capacity for public transport or enable some form of priority movement of public transport.

5. Capacity

Within the context of managing demand for road space through various strategies including promoting public over private transport, there is need for a number of road projects to address current and pending capacity issues that negatively impact on the effective and efficient functioning of the City.

6. Project Packages

Identifies road infrastructure requirements in support of other initiatives including key city projects, such as the new airport and associated trade-port.

**Roads
Programme
categories**

6.2 Roads Policy

The following focuses on two key aspects of road policy which relate to provincial and national roads in the eThekweni Municipality. At this stage there is no need for additional policy on roads

6.2.1 Toll Roads

The planned introduction of additional toll points on national roads within the Municipal Area is an issue for the eThekweni Council.



Currently there are two tolls in the eThekweni Municipal area, one at Mariannhill on the N3 and the other at Tongaat on the N2.

Two additional toll points are being considered, namely in the south at Prospecton on the N2 and to the west at Key Ridge on the N3.

Toll roads

In general terms, the Council is not in favour of such tolling as it has negative impacts, including:-

- Diverting trucks to alternative routes affecting commuter peaks in terms of road safety and capacity;
- Deterioration of road pavements on alternative routes due to deviating heavy vehicles;
- Re-routing traffic through sensitive locations (eg. In the vicinity of schools, shopping areas, etc.) affecting the quality of the environment as well as increasing the potential for pedestrian and vehicular accidents.
- An overall negative economic impact on eThekweni Municipality.

Consequently, the Council has adopted the following policy on toll roads:-

- No. 1 The Council is opposed to the tolling of roads within eThekweni Municipality and in particular the introduction of any new toll points.

Opposition to toll roads

6.2.2 Devolution of Provincial Roads

The KZN Provincial Roads Department is currently negotiating with the Municipality to devolve certain provincial roads within the metropolitan area to local government. Various issues around agreed requirements for the condition and standards of these roads remain unresolved.

Consequently, the ETA has adopted the following policy on the taking over of provincial roads:-

- No. 2 Whilst not opposed to the principle of devolving provincial roads within the municipal area to local government, the Municipality is cautious about the issue of unfunded mandates.

Devolution of provincial roads

6.3 Road Project Proposals

This section tabulates the roads projects in terms of the five categories described in Section 6.1.

6.3.1 Accessibility Focused Projects



Most projects shown in Table 6.1 are proposed to upgrade local roads ensuring a reasonable standard of surfaced, all weather roads providing access to the major road network and improved quality of life to local residents. An important aspect of these projects is the ability to improve public transport service to areas accessed from these roads.

Table 6.1 Accessibility Focused Road Projects

Project Description	Responsibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
Existing Local Roads Projects Incl:					
➤ Nazareth residential roads (1)	E	6.2	5.2	1.0	
➤ Carick Road upgrade incl new bridge (2)	E	6.0	6.0		
➤ Intake Road bridge (3)	E	1.9	1.9		
➤ Dassenhoek rural roads (4)	E	5.7	5.7		
➤ Matwabula Road upgrade (5)	E	6.0	6.0		
➤ Other	E	1.4	1.4	22.0	
Rural Community (EPWG) Roads Prog. (Phase 2) (6)	E	33.8	33.8		
New major road MR577 from KwaDabeka to Duffs Rd (7)	C	450.0		450.0	
Rural Community (EPWG) Roads Prog (Phase 3) (8)	E	51.6		51.6	
Rural Community (EPWG) Roads Prog (Phase 4) (8)	E	10.0		10.0	
D403 Ext - Inanda to R102 Verulam (9)	E	10.0		10.0	
Five Year Programme Total				544.6	
Post 2010 Projects					
M30 from Umbumlulu to Mangosuthu H'way in Umlazi (10)	E	5.0			5.0
M40 from M61, between Umbumbulu & Shongweni Dam (11)	E	4.0			4.0
M28 Inanda Dam to Hazelmere Dam (12)	E	15.0			15.0
M48 (Wiltshire Road) (13)	E	5.0			5.0
P529 (M53) Craigeburn (14)	E	5.0			5.0
P98 (M25) from Redcliffe to Amatikwe (15)	E	6.0			6.0
M4 Grimsby Link (thru racecourse) (16)	E	500.0			500.0
KwaMakhuta Access Road (17)	E	10.0			10.0
Industrial Access Rd @ Existing Airport (Himalaya-Joyner) (18)	E	60.0			60.0
Post 2010 Programme Total		610.0			610.0

Note 1) E = eThekweni Municipality
C = Public/Public combo or Public/Private combo

6.3.2 Freight Movement Focused Projects

Currently there are two roads projects under construction which are a part of the main freight haulage route system in the metropolitan area. These are shown in the following table:-

Table 6.2 Freight Movement Focused Projects

Project Description	Responsibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
Edwin Swales (M7) (N2-Titren) (19)	E	34.6	34.6		
Bayhead Rd Ext. over S. Freeway (20)	C	36.3	3.3	33.0	
Five Year Programme Total				33.0	

Note 1) E = eThekweni Municipality
C = Public/Public combo or Public/Private combo

6.3.3 Economic Impact Focus Projects and Bottleneck Elimination and Road Safety

Projects in Table 6.3 address bottlenecks and missing links/connectivity in the system which cause accessibility problems, negatively impacting on economic activity in the City. In some bottleneck locations safety is also a related issue as well as being a consideration on its own merit.

**Safety,
Bottleneck
elimination &
Economic
development**

Table 6.3 Economic Impact, Bottleneck Elimination and Safety Improvement Roads Projects

Project Description	Responsibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
M4/Quality Street Interchange (21)	E	30.0	12.5	17.5	
N3 lane balance between N2 & Westville Interchange (22)	S	20.0		20.0	
N3 lane balance between Westville I/c & Paradise Valley I/c (23)	S	5.0		5.0	
Lighting along N2 (Durban Outer Ring Rd) (24)	S			32.0	
Lighting along N3 (Candella Rd - Mariannhill Plaza) (25)	S			9.0	
Hans Dettmann/Wiltshire Rd intersection (26)	K	2.0		2.0	
Stanger St/Argyle Rd Interchange (27)	E	65.0		65.0	
Musgrave Rd & Essenwood Rd one way pairing (28)	E	1.5		1.5	
Higher Order Road Rehabilitation (29)	E	98.0		98.0	
N2 Interchange Upgrades - short term (30)	C	5.0 + NDOT		5.0 + NDOT	
Nandi Dr-North Coast Rd to Mandela Rd (2+2 Lanes) (31)	E	40.0	10.0	30.0	
Cannongate (elevated) - Inbound (32)	E	97.5		97.5	
Cannongate (elevated) - Outbound (33)	E	101.0		101.0	
Berea and N-S Link (34)	E	27.0		27.0	
Booth Rd (M32) N3 to Francois Rd (35)	E	70.0		70.0	
Francois Rd (M32) - Booth Rd to University (35)	E	8.0		8.0	
North Coast Rd (R102) Upgrade - Verulam to Phoenix (36)	E	25.0		25.0	
South Coast Rd (R102) from Bayhead to M7 (37)	E	4.0		4.0	
North Coast Rd through Mt Edgecombe (36)	E	15.0		15.0	
Umhlanga Rocks Dr/Northway Intersection (38)	E	5.0		5.0	
Improved connections from Newlands W. Dr. (M23) to MR577 (39)	E	5.0		5.0	
Inanda Rd (M21) at NPC factory (40)	E	8.0		8.0	
Five Year Programme Total				650.5	

Note 1) E = eThekweni Municipality
S = SANRAL
K = KZNDOT
C = Public/Public combo or Public/Private combo

Table 6.3 Economic Impact, Bottleneck Elimination and Safety Improvement Roads Projects (Continued)

Project Description	Respon- sibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Post 2010 Projects					
N2/Booth Rd I/c & roadworks (41)	C	70.0			70.0
St Johns Rd (M19) upgrade (42)	E	13.0			13.0
Bellville Rd/M7 Intersection (43)	E	10.0			10.0
N2/Adams Rd I/c (44)	S	66.0			66.0
N2 (Mt Edgecombe to Sibaya I/c) (45)	S	1.0			1.0
N2/Cornubia interchange (46)	S	30.0			30.0
N2 widening (Sibaya to La Mercy) (47)	S	80.0			80.0
R102/Phoenix Highway interchange upgrade (48)	E	7.0			7.0
Cornubia Arterial from Phoenix Highway to Cornubia I/c (49)	E	100.0			100.0
Inanda Rd (M21) (50)	E	5.0			5.0
Bayhead-Edwin Swales Link Road (51)	E	TBA			-
Post 2010 Programme Total		382.0			382.0

Note 1) E = eThekweni Municipality
 S = SANRAL
 C = Public/Public combo or Public/Private combo

6.3.4 Public Transport Related Roads Projects

The projects in Table 6.4 are existing heavily trafficked public transport routes that require maintenance and upgrading to more effectively handle the demand.

Public transport

Table 6.4 Public Transport Related Roads Projects

Project Description	Respon- sibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
Southern Freeway Rehabilitation (52)	E	55.0	20.0	35.0	
Western Freeway Rehabilitation (53)	E	90.8	3.8	87.0	
North Coast Road - from Stanhope Rd to Blackburn Rd (54)	E	85.0			
Five Year Programme Total				122.0	
Post 2010 Projects					
P197 (M14) from R603 to M35 (55)	E	25.0			25.0

Note 1) E = eThekweni Municipality

6.3.5 Capacity Related Roads Projects

The projects in table 6.5 relate mostly to areas where there are currently or projected to be within the 2020 roads programme major capacity problems on a section of the system, as opposed to localised bottlenecks.

Capacity

Table 6.5 Capacity Related Roads Projects

Project Description	Responsibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
Outer West Road Improvements (56)	E	60.0	3.0	57.0	
Point Rd/Shepstone Rd one way pairing (57)	E	135.0	-	135.0	
Brickfield Rd Upgrading - Sparks Rd to N3 (58)	E	32.0	-	32.0	
Cato Manor Arterial North (M10) - N3 to Booth Road (58)	E	63.0	-	63.0	
Cato Manor Arterial South (M10) - N7 to Booth Road (58)	E	73.0	-	73.0	
Inanda Arterial West (59)	E	70.0	-	70.0	
Inanda Arterial East (60)	E	70.0	-	70.0	
N2 Re-hab & capacity upgr. (EB Cloete-Umhloti I/c) (61)	S	63.0		63.0	
Interchange capacity upgrades (Higginson H'way-Umhlanga I/c) (62)	S			(part of 63.0)	
Capacity improvements (Candella Rd-M13) (63)	S			68.0 ⁽²⁾	
5 Year Programme Total				631.0	
Post 2010 Projects					
M33 (Kloof Falls Road) connection to M13 (64)	E	4.0			4.0
Aliwal/Walnut (65)	E	100.0			100.0
N2 (Amanzimtoti to Prospecton) (66)	S	30.0			30.0
R102 (Tongaat to Verulam) (67)	E	20.0			20.0
MR360/1 (M13 to N3) (68)	E	100.0			100.0
M41 (Umhlanga Rocks Dr to M4) (69)	E	10.0			10.0
Hans Dettman Highway (M34) (70)	E	20.0			20.0
M4 (Virginia to Athlone) (71)	E	120.0			120.0
Stapleton Corridor (M5) (72)	E	40.0			40.0
Umhlatuzana Arterial & N2 interchange (73)	S	660.0			660.0
Post 2010 Programme Total		1104.0			1104.0

Note 1) E = eThekweni Municipality
S = SANRAL

2) Budget valid only if Mariannhill toll route extended to Candella Rd

6.3.6 Roads Projects to Support Key City Projects

The following roads projects will only proceed if and when the Key City project they relate to is initiated, generally with support of extraordinary funding.

Key city projects

Table 6.6 Roads Projects to Support Key City Projects

Project Description	Responsibility ⁽¹⁾	Est Cost (R mill's)	Programme Expenditure (R mill)		
			2004/05	5 Yr ITP	Post 2010
Current + 5 Year ITP Programme					
La Mercy I/c on N2 freeway with link to R102, as part of new King Shaka airport & iDube Tradeport (74)	S	40.0	40.0		
5 Year Programme Total			40.0		
Post 2010 Projects					
Unity Bridge of Harbour (75)		2000.0			2000.0

Note 1) E = eThekweni Municipality
S = SANRAL
C = Public/Public combo or Public/Private combo

6.4 Programme Summary by Category

Table 6.7 shows a summary of estimated capital expenditure by project category in the short term five year programme and from 2010 to 2020.

**Roads
programme
summary**

Table 6.7 Roads Programme Expenditure Estimate to Year 2020

Category Focus	No of Projects	Expenditure Est. (R millions)	
		2005/06 - 2009/10	Post 2010
1. Accessibility	20	545	610
2. Freight ⁽¹⁾	2	33	-
3. Safety, Bottleneck Removal & Economic Development	32	651	382
4. Public Transport ⁽²⁾	4	122	25
5. Capacity	19	631	1104
6. Roads Projects to Support Key City Projects ⁽³⁾	2	40	2000
TOTAL PROGRAMME	79	2022	4121

- Note
- 1) Additional projects will be identified on completion of future phases of the Freight Plan
 - 2) Additional projects will be identified for Post 2010 as detailed planning of PT system progresses
 - 3) Additional projects could be identified in support of future Key City Projects

6.5 FIFA World Cup 2010

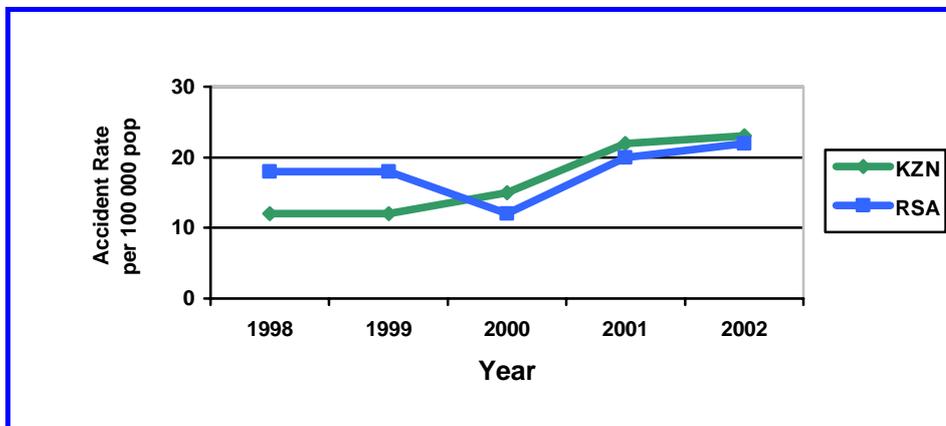
Current planning and identified projects related to this event are discussed in Section 10. As the planning progresses the transport infrastructure requirements in support of this major event are being identified. These projects will be developed in an integrated process and incorporated into the ITP.

7. ROAD SAFETY

7.1 Introduction

Road safety is a cornerstone of the Integrated Transport Plan as it has a dramatic impact on the potential *Quality of Life* for many residents, both young and old.

Apart from the social impact on individuals and families, road accidents have a major impact on the economy of the county. In spite of various initiatives including road safety programmes such as Asiphephe and Arrive Alive, road fatalities continue to increase throughout the country as shown in the following graph.



Accident trends

Accident Trend in KZN and South Africa

During 2001, 51% of traffic accidents in South Africa occurred in the eight largest urban areas including eThekweni where fatal accidents and serious injuries also indicated an upward trend. The figures shown in the following table over a ten year period show 6 400 deaths, 1 200 of these being children. In addition there were 30 000 serious injuries costing eThekweni some R14 billion.

Table 7.1: Ten Years of Traffic Accidents in eThekweni

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Deaths	599	645	717	620	603	633	545	608	710	742
Serious injuries	2386	2498	2337	2336	2600	2848	3195	3710	3840	3791
Total Cost R millions	692	1020	1103	1211	1274	1376	1534	1769	2007	2241

eThekwini's Vision Statement declares its intention to be 'Africa's most caring' and liveable city. eThekwini recognises the threat of road accidents to achieving this objective and has taken a serious structured approach to address this challenge in the form of a comprehensive Road Safety Plan.

7.2 Basic Principles for Developing the Road Safety Plan

The following are the basic principles adopted by eThekwini in the preparation of their Road Safety Plan:-

- the Plan must be appropriate in the eThekwini context.
- strategies in the Plan must be developed from a thorough analysis of road accident patterns and causes.
- the road safety strategies need to be multi-disciplinary and include all stakeholders if they are to be effective.
- the plan has to be realistic in what it aims to achieve within current financial and resource constraints. It recognises that it is unlikely that there will be any immediate significant increase in resources.
- whilst being realistic, the Plan must assess and define the entire range of strategies and actions that need to eventually be implemented. These actions need to be prioritised according to resource constraints.
- To address road safety effectively, peoples values, culture and habits need to be changed.

**Basic principles
in preparing
the Plan**

In adopting these principles it is recognised that many of the crucial strategies that have to be implemented immediately are unlikely to produce dramatic short-term results and that this is a process that takes time. The Plan needs to put foundations in place and then gradually build upon them.

7.3 Assessment of the Current Accident Situation

An assessment of the current situation was conducted focussing on the extent of involvement of different road user groups including:-

- All Road Users
- Pedestrians
- Minibus Taxis
- Buses

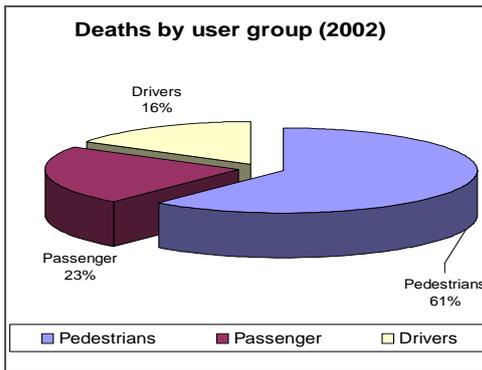
**Road user
groups
investigated**

- Heavy Vehicles
- Light Delivery Vehicles/Bakkies
- Cars

Apart from the type of vehicle involved the evaluation noted the age, sex and category of the person involved as being pedestrians, drivers and passengers.

7.3.1 Deaths by User Group

Assessment of accident categories



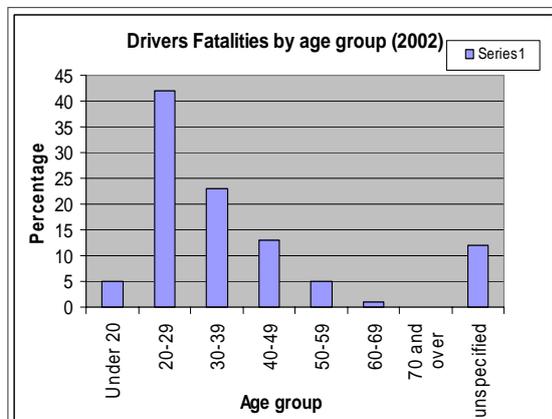
The adjacent pie chart shows the deaths by different user groups, highlighting the most vulnerable group as being pedestrians. Overall, children under 10 years of age and young male drivers under the age of 30 years are seen to be the most vulnerable.

7.3.2 Pedestrian Accidents

The five worst areas for pedestrian accidents in eThekweni are in Durban CBD, Umlazi, KwaMashu, Chatsworth and Phoenix. The pedestrian accidents in Umlazi, KwaMashu, Phoenix and Chatsworth were characterised by a significant involvement of children under the age of 10 years with twenty percent of all pedestrian accidents in these areas involving children under the age of 15 years. In the Durban CBD the 20-29 age group had the highest involvement in pedestrian accidents.

7.3.3 Driver Fatalities by Age Group

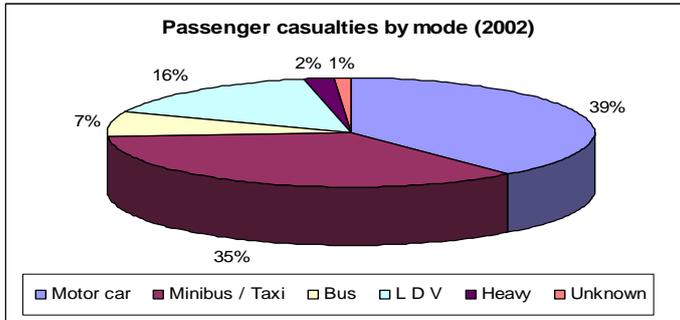
The graph for driver fatalities by age group highlights the under 30 male drivers as the highest risk group with accidents typically associated with speeding, driving whilst under the influence of alcohol and drugs, driving without a seatbelt, cell phone usage while driving, aggressive and reckless driving and driving home in the early hours in a fatigued and intoxicated



condition. These dangerous behaviour patterns need to be the target of area-wide law enforcement and media campaigns.

Whilst this problem is endemic throughout the City it is notably worse in the Phoenix area.

7.3.4 Minibus Taxi Accidents



The adjacent pie chart shows the extent to which minibus taxis are involved in accidents relative to other types of vehicles. The high

incidence of this type of accident is made more serious by the fact that this mode carries public transport passengers with little to no protection in the event of a serious accident. The worst areas of occurrence are the same as those for pedestrian accidents except that Pinetown replaced Chatsworth as one of the worst five. The areas were: Durban CBD, Umlazi, KwaMashu, Phoenix and Pinetown.

7.4 Current Road Safety Activities

Various road safety initiatives and activities are carried out at national, provincial and local levels. This section focuses on those initiatives and activities carried out at the local level for the sectors of education, engineering, enforcement, emergency services, and evaluation. The results are summarized in the following paragraphs:

7.4.1 Education

Community Road Safety Councils (CRSC's) currently operate in six areas of the City with plans for another three. Collectively, these CRSC's should cover most of the Municipal area.

Education

Road Safety is known to be a compulsory part of school curriculum's and schools are able to adapt programmes to their particular needs.

eThekwini Municipality has 15 municipal Road Safety Officers (RSO's) in the Durban Metropolitan Police Service (DMPS) deployed in road safety education in the 5 operational entities. The extent to which each entity focuses on education varies.

7.4.2 Engineering

In eThekwini Municipality, many of the implementation projects are safety related or have a strong safety element. Many are identified by councillors or members of the community and may therefore not go through the same technical evaluation/approval procedures as other projects. This could result in the overlooking of other sites more needful of attention.

Engineering

The following gaps have been identified:

- Although a number of hazardous locations are identified each year, there is currently no formal municipal-wide hazardous location programme including a predetermined network screening and prioritization procedure.
- Road Safety is addressed reactively. There are few if any proactive road safety audits of new roads, public transport services and infrastructure, land developments and townships.
- There is a need for more 'Intelligence' in support of the road safety effort. Development of the Geographic Information System (GIS) is ongoing. Although the eThekwini accident data base on its own is arguably the best in the country, much work still has to be done to link the various systems, for example, traffic volume data, geometric data, accident data, offence rates etc into one information system that can provide customized support data to the various Road Safety Agencies.

Identified gaps

7.4.3 Enforcement

Three organizations are involved in traffic enforcement matters in eThekwini.

Enforcement

In general **SAPS** only attend traffic accidents to gather evidence and prepare cases of culpable homicide. However the Accident Unit does involve itself in active traffic enforcement.

The **Provincial Road Traffic Inspectorate (RTI)** is involved in traffic law enforcement and attendance at accidents on national and provincial roads. Although they have jurisdiction on all KZN roads leaving the local roads to the Durban Metropolitan Police Services (DMPS).

Enforcement

The **Durban Metropolitan Police Service** focus on traffic policing, City Bylaw infringements and assisting the SAPS with crime prevention. They are meant to dedicate 60% to traffic law enforcement but crime prevention priorities intervene. Over and above the general force, there are 3 Special Units:

- Special Events Unit,
- Speed Timing Unit
- Public Transport Unit dedicated to public transport vehicle fitness, taxi and route permits, professional driving permits and taxi ranks

7.4.4 Emergency Services



Research has shown that once a road traffic accident has occurred, critical trauma cases are more likely to survive if they are treated within 60 minutes (also known as the 'Golden Hour'). Within eThekweni it was found that inefficiencies and current resource constraints are having a detrimental effect on the ability to attend to accident victims within the 'Golden Hour':

Emergency services

7.4.5 Evaluation

There is no formal and independent "before-and-after" evaluation of road safety activities at any of the levels of government. That an activity was undertaken or a project implemented, is currently regarded as sufficient and 'successful'.

Before/after evaluation

7.4.6 Deficiencies

In each of the above areas of initiative and activities a range of issues were identified which have been fully described in the main report.

In summary it was found that:-

- there is a lack of effective co-ordination and integration of the road safety activities carried out by various organizations and at various levels of government.
- there is a lack of performance and outcomes measurement
- there is a lack of accountability with regard to road safety outcomes.
- there is insufficient supporting data to control and manage road safety
- institutional arrangements are complex and dysfunctional in some instances.
- there are insufficient dedicated resources for road safety. For example, in engineering, safety projects must often piggyback onto capacity related projects. In enforcement, crime prevention generally takes precedence. Most agencies are 50% understaffed.

Deficiencies in road safety activities

In order to remedy the situation, a three pronged approach described in the following section has been adopted.

7.5 Planning Strategies

This section highlights the planning strategies related to the three strategic thrusts of the Road Safety Plan.

7.5.1 Strategic Thrust 1: Getting the Basics Right

This thrust involves laying the foundations of the Plan which include:-

- dedicated institutional structures to respond to road safety
- co-ordination of the various institutional structures
- dedicated staff and funding
- information requirements
- road safety as a mandatory 21st century life skill
- citizenship

**Thrust 1:
Getting basics right**

The following specific strategies for each sector, all form the foundation of the eThekweni Road Safety Plan.

Engineering Services:

The following strategies apply to this sector:-

- Strategy 1: Introduce a formal HAZLOC Programme
- Strategy 2: Develop a formal road network screening and prioritisation procedure
- Strategy 3: Carry out before and after studies of selected safety projects
- Strategy 4: Develop an Information System
- Strategy 5: Develop a formal audit and assessment programme

Engineering services

Education:

- Strategy 6: Create a pool of dedicated Road Safety Education Officers
- Strategy 7: Deploy equipped scholar patrols
- Strategy 8: Develop a school's database addressing the visitation/information/education programme
- Strategy 9: Train Road Safety Education Officers
- Strategy 10: Develop a programme to motivate RSEO's
- Strategy 11: Support provincial CRSC's and monitor their effectiveness.
- Strategy 12: Use the KZN-DOT educational material and ensure availability to all schools.

Education

Enforcement:

- Strategy 13: Provide the 'intelligence' data for planning of targeted law enforcement campaigns
- Strategy 14: Maintain equipment in a fully operational condition

Enforcement

- Strategy 15: Create a smaller dedicated task force to compliment the general force
- Strategy 16: Change the judicial process regarding the recovery of outstanding fines
- Strategy 17: Investigate linking payment of outstanding fines to the re-issue of operating licences and rank permits for public transport vehicles
- Strategy 18: Raise the profile and level of recognition of achievement in the profession
- Strategy 19: Investigate the call/control centres for alleged corruption

Enforcement

Emergency Services:

- Strategy 20: Set up co-ordination channels for all emergency service providers to establish voluntary co-operation
- Strategy 21: Monitor the eThekwini call centre
- Strategy 22: Provide a free call emergency number for eThekwini
- Strategy 23: Obtain and evaluate response time data
- Strategy 24: Introduce real time control of vehicle locations
- Strategy 25: Investigate contracting out of private ambulance services

Emergency services

Exposure:

- Strategy 26: Raise awareness of Road Safety through media campaigns
- Strategy 27: Municipal employees to set the example of exemplary road user behaviour.

7.5.2 Strategic Thrust 2: Road Safety Management Areas

The most vulnerable groups in eThekweni have been identified as follows:-

- Pedestrians of school going age
- Pedestrians in the 20-30 age group in the Durban CBD

**Thrust 2:
Safety
Management
Areas**

The worst areas within the municipality are now identified as road safety management areas with a view towards specifically managing reduction of the incidence and severity of accident occurrence in these most vulnerable groups.

7.5.2.1 Pedestrians in the 5-9 and 10-19 Age Categories

The Road Safety Management Areas in respect of these groups are:

- Umlazi
- Kwamashu
- Phoenix
- Chatsworth

**Pedestrians
5-10 yrs**

The Road Safety Management strategies for each sector in respect of these age groups are:-



Education:

Strategy 1: Teach young pedestrians basic road safety and instill sound habits at an early age

Strategy 2: Use the power of peer pressure

Publicity - Raising Awareness:

Strategy 3: Involve parents, high profile persons and business

Strategy 4: Make unsafe road user behaviour “uncool”

Community Liaison:

Strategy 5: Involve community in the safety of their children and their neighbour’s children

Enforcement:

Strategy 6: Develop a programme for ongoing targeted enforcement in the vicinity of schools

Engineering:

Strategy 7: Focus on mitigation or elimination of hazards near schools

7.5.2.2 Pedestrians in the 20-30 Age Category in the Durban CBD

The Road Safety Management strategies for each sector in respect of this age group are the following:-

Education and Public Awareness:

Strategy 8: Raise awareness among the public of pedestrian vulnerability

Strategy 9: Raise awareness among the public of pending enforcement

**Pedestrians
20-30 yrs**

Enforcement:

Strategy 10: Develop a programme of targeted enforcement

Engineering:

Strategy 11: Consider an engineering solution if targeted enforcement fails

7.5.3 Strategic Thrust 3: Focussed Area-Wide Strategies

7.5.3.1 All Drivers, but Especially Male Drivers in the 20-30 Age Category

This Road Safety Management focus is municipal wide, but with a special focus on Phoenix where 35% of drivers in accidents are under the age of 30.

**Thrust 3:
Area-wide
strategies**

Public Awareness:

Strategy 1: Introduce low cost publicity options

Enforcement:

Strategy 2: Encourage drivers to respect speed limits

Strategy 3: Target drunk driving and seatbelts

7.5.3.2 Public Transport

In preparation for the 2010 Soccer World Cup, Public Transport has been included as a major focus area.

Publicity:

Strategy 4: Challenge the minibus taxi industry to do the right thing.

Strategy 5: Provide accreditation for conforming minibus taxi operators.

Enforcement:

Strategy 6: Target road worthiness, traffic operations and violations

7.6 Road Safety Calendar

Section 7.5 highlighted the various strategies that constitute the eThekwini Road Safety Plan. From these lists the **eThekwini Road Safety Calendar (2004-2009)** has been compiled, highlighting the various campaigns and their key components as well as identifying the implementing agencies. The following calendar for 2005 is an example of the Road Safety activities and initiatives planned over a one year period.

2005	CAMPAIGN	KEY COMPONENTS	RESPONSIBILITY
January	Arrive Alive – Holiday Campaign	eThekwini will support and endorse the campaign	DMPS
February	Establish all the Committees and sub-committees and begin to operationalize the strategies	<u>Education</u> strategy operationalized <u>Enforcement</u> strategy operationalized <u>Engineering</u> strategy operationalised <u>Data systems</u> operationalized	DMPS (RSEO) DMPS ETA: Road Safety Branch ETA and DMPS
March			

2005	CAMPAIGN	KEY COMPONENTS	RESPONSIBILITY
April	Arrive Alive – Easter Campaign	eThekwini will support and endorse the campaign	DMPS
May			
June	Durban CBD Campaign	<u>Publicity</u> <ul style="list-style-type: none"> ▪ Posters on Light Poles ▪ Light and Water Bills ▪ Community newspapers ▪ Radio ▪ Media Launch: High profile person to walk around in CBD <u>Enforcement</u> <ul style="list-style-type: none"> ▪ Foot Patrols for first 2 weeks (education role) ▪ Mounted patrols for 2 weeks (education role) ▪ last 2 weeks motorcycle enforcement 	ETA: Road Safety Branch DMPS
July			
August			
September			
October			
November	Arrive Alive – Holiday Campaign	Extensive booze bus ops	DMPS
December	Arrive Alive – Holiday Campaign	Extensive booze bus ops	DMPS

7.7 Evaluating Success

The Road Safety Plan recognises that success in road safety involves concern with providing “safe” infrastructure as well as changing people’s existing behaviour from “unsafe” into “safe” behaviour. Further the Plan recognises the fact that changing behaviour of large numbers of people does not happen quickly. It requires certain foundations to be laid and then built upon in order to achieve a gradually increasing and sustainable long-term impact. It is critical that this steadily unfolding and evolving process be monitored and evaluated.

One of the existing ‘gaps’ in current road safety activities that has been identified is the lack of evaluation. The eThekwini Road Safety Plan proposes to address this gap and the following objectives and measures have been identified to monitor and measure progress:-

Evaluating success

Table 7.2: Monitoring Progress in Road Safety Programme

Objective	Base	Measure	2010 target	Evaluation Data Requirements	Who does it?
GENERAL					
<u>Reduction Target</u>					
<ul style="list-style-type: none"> ▪ All Accidents 	54209 (all) 547 fatal rate	<ul style="list-style-type: none"> ▪ 10% reduction in the 3 year average 	48788 (all) 492 (fatal) rate	<ul style="list-style-type: none"> ▪ eThekwini accident database 	ETA: Road Safety Branch
<u>Reduction Target</u>					
<ul style="list-style-type: none"> ▪ Pedestrian accidents 5-19 age group in the Road Safety Management Areas: <ul style="list-style-type: none"> · Umlazi · Chatsworth · Kwamashu · Phoenix · Umlazi · Chatsworth · Kwamashu · Phoenix · Umlazi · Chatsworth · Kwamashu · Phoenix 	175 81 110 100 SI* SI* SI* SI* rate rate rate rate	<ul style="list-style-type: none"> ▪ 10% reduction in the incidence and severity of pedestrian accidents by 2010 10% reduction in the pedestrian accident rate (acc/pop)	140 65 88 80 SI* SI* SI* SI*	<ul style="list-style-type: none"> ▪ eThekwini accident database 	ETA: Road Safety Branch
<u>Reduction Target</u>					
<ul style="list-style-type: none"> ▪ Pedestrian accidents in the Durban CBD 	1526 (all ages) SI*	<ul style="list-style-type: none"> ▪ 10% reduction in the incidence and severity of accidents by 2010 	1373 (all ages) SI*	<ul style="list-style-type: none"> ▪ eThekwini accident database 	ETA: Road Safety Branch
<u>Reduction Target</u>					
<ul style="list-style-type: none"> ▪ Minibus Taxi Accidents in the Road Safety Management Areas: <ul style="list-style-type: none"> · Umlazi · Chatsworth · Kwamashu · Phoenix · Durban CBD 	803 545 451 509 2573	<ul style="list-style-type: none"> ▪ 15% reduction in accidents by 2010 	723 491 406 458 2316	<ul style="list-style-type: none"> ▪ eThekwini accident database 	ETA: Road Safety Branch
<u>Reduction Target</u>					
Driver behaviour: <ul style="list-style-type: none"> ▪ seatbelt usage ▪ speeding ▪ alcohol 	not yet available (to be determined)	not yet available	not yet available	not yet available	ETA: Road Safety Branch

*SI - Severity Index = EAN/Total Number of accidents
 EAN – Equivalent Accident Number (Fatal=12, Serious=8, Slight=3, Damage=1)

7.8 Institutional Arrangements

Some of the deficiencies highlighted by the status quo investigations were the complicated and often confusing structures and unclear lines of authority, lack of dedicated institutional arrangements as well as complex co-ordination channels.

This has often resulted in a lack of focus on road safety, a lack of accountability and co-ordination. The eThekwini Road Safety Plan addresses this situation by putting in place simpler institutional arrangements.

7.8.1 Council and Committee Structures

There are five council/committee structures in the proposed new institutional arrangement. These are:-

**Institutional
arrangements**

1. **The eThekwini Road Safety Council:** This is the political body, having the highest authority with regard to the eThekwini Road Safety Plan. Its members will be high profile persons who can officially commit their organisations and resources to the implementation of the Plan.
2. **The eThekwini Road Safety Technical Committee:** This is an existing body that will carry out the coordination and management of road safety activities in eThekwini.
3. **The Road Safety Enforcement Working Group - Joint Coordination Committee:** This group will provide coordination, direction and management of road based traffic law enforcement across the Municipality.
4. **The Road Safety Engineering Working Group:** This group coordinates and implements the road safety engineering projects.
5. **The Road Safety Education Working Group:** This group will facilitate the facilitation of clear communication channels between all role players. They will monitor progress on initiatives and co-ordinate activities related to the business plan as well as the alignment of activities with national and provincial campaigns and initiatives.

7.9 Funding and Action Programme

The eThekwini Road Safety Branch as the responsible implementing agency will put together the appropriate business plans incorporating the sector plans from education and enforcement.

Funding & action programme

Table 7.3 describes some of the possible sources of funding for the 5-year Action Programme, that can and will be considered by the Road Safety Branch when compiling the annual business plan.

Table 7.3: Possible Sources of Funding for Road Safety Plan

Funding Source	Information
Local Economic Development funding	Link to Community based labour, poverty relief and enhanced mobility
Extended Public Works Programme	Labour-intensive methods to upgrade rural and municipal roads, municipal pipelines, storm-water drains and paving, as well as fencing of roads, community water supply and sanitation, maintenance of government buildings, housing, schools and clinics, rail and port infrastructure, electrification infrastructure, etc
Urban Renewal Programme	7 year programme, INK is a development node i.e. Inanda, Ntuzuma, Kwamashu (some provision for road safety)
KZN-Dept of Transport	Already receive AA funding and carry out safety activities in eThekwini as part of the provincial wide safety programme
eThekwini Transport Authority (ETA)	Have set aside some budget for Road Safety Plan
Municipal Infrastructure Grant	Link to facilities for non-motorized transport e.g footbridges
National Arrive Alive	ETA applies direct to Arrive Alive for funding
Public-Private Partnerships	Financial support from business in return for advertising space/exposure e.g. Toyota

Possible funding sources

It comprises six sectors these being:-

- Engineering
- Education and community liaison
- Enforcement
- Emergency services
- Campaigns
- General

Table 7.4 shows the five year action programme for the Road Safety Plan.

Table 7.4: Road Safety Action Programme Engineering Sector

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
A. GENERAL				
1. Annual business plans for funding: <ul style="list-style-type: none"> ▪ eThekweni Municipality – Engineering projects/traffic calming ▪ Asiphephe – hazloc program ▪ Arrive Alive – Overtime and booze bus (enforcement) 	eThekweni Transport Authority: Road Safety Branch	Annually		n/a
2. Develop a comprehensive road safety information system which will include risk assessment, engineering, enforcement, education and accident data	eThekweni Transport Authority: Road Safety Branch	October to February 2005		ETA
3. Develop a hazchem plan for eThekweni	eThekweni Transport Authority: Road Safety Branch	February to April 2005	R120 000 Still to be confirmed	ETA
4. Organize an eThekweni Road Safety Indaba and HERO awards function to recognize persons who have made outstanding contributions to the community in the field of Road Safety. Invite all sectors. <ul style="list-style-type: none"> ▪ Annual meeting of the eThekweni Road Safety Council 	eThekweni Transport Authority: Road Safety Branch	Annual event October, first meeting in October 2006		
5. Include Road Safety in annual eThekweni Quality of Life survey	eThekweni Transport Authority: Road Safety Branch	Annual, Develop question in 2005 and target 2006		n/a
B. SECTOR: ENGINEERING				
a: BASICS				
6. Indicate funding and projects for coming year	eThekweni Transport Authority: Road Safety Branch	Annually		n/a
7. Capture Road Safety Projects for database	eThekweni Transport Authority: Road Safety Branch	ongoing		n/a
8. Develop a standardized <ul style="list-style-type: none"> ▪ network screening procedure ▪ prioritization procedure 	eThekweni Transport Authority: Road Safety Branch	2005 (from 2006 onwards, engineering projects will go through the standardized procedure)	R60 000 To be confirmed	ETA
9. Carry out before-and-after studies on implementation projects.	eThekweni Transport Authority: Road Safety Branch	ongoing	project specific	ETA
10. All new plans to be audited	eThekweni Transport Authority: Road Safety Branch	ongoing	internal	n/a
b: AREA WIDE				
11. Carry out formal area-wide HAZLOC programme: <ul style="list-style-type: none"> ▪ using standardized network screening procedure ▪ using standardized prioritization procedure ▪ list of projects for funding in a particular year ▪ audits and assessments of priority hazlocs 	eThekweni Transport Authority: ▪ Road Safety Branch ▪ Engineering Branch	Annual, BUSINESS PLAN (in time to put forward projects for funding from the various sources)		

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
c: ROAD SAFETY MANAGEMENT AREAS				
12. Carry out Road Safety Audits of Routes to School and propose remedial/mitigation measures as necessary <ul style="list-style-type: none"> ▪ Focus first on schools in Road Safety Management Areas ▪ Ultimately extend to all schools, area wide 	eThekwini Transport Authority: <ul style="list-style-type: none"> ▪ Road Safety Branch ▪ Engineering Branch 	Annual, ongoing		
13. Durban CBD: Monitor results of CBD campaign for 5 years, if results are not satisfactory, seek engineering solution	eThekwini Transport Authority: Road Safety Branch	towards end of 2009		
C. SECTOR: EDUCATION AND COMMUNITY LIAISON				
a: BASICS				
14. Create a pool of dedicated Road Safety Officers (15 RSEO)	<ul style="list-style-type: none"> • Durban Metropolitan Police Service • eThekwini Transport Authority: <ul style="list-style-type: none"> ▪ Road Safety Branch 	February 2005		eThekwini Municipality
15. Business Plan	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	Annually in time for submission to national and province		n/a
16. RSEOs co-ordinate activities with KZN provincial "CRSCs"	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	Annually and at monthly meetings		n/a
17. Determine which organizations require KZN-DoT educational material e.g. Adult pedestrian flip charts <ul style="list-style-type: none"> ▪ Ensure that the necessary materials reach the trainers 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	annually in time to get material to users		n/a
18. Deploy scholar patrols at all schools where they are needed: <ul style="list-style-type: none"> ▪ RSO check provincial database ▪ Focus on road safety management areas first ▪ Eventually extend to all schools area wide 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service • eThekwini Transport Authority: <ul style="list-style-type: none"> ▪ Road Safety Branch ▪ Engineering Branch 	Ongoing	to be determined	KZN - DoT
19. Create and maintain an eThekwini schools database: <ul style="list-style-type: none"> ▪ Road Safety champion at each school ▪ if there are scholar patrols at the schools ▪ has scholar patrol training been done ▪ road safety audits carried out, when, results, actions ▪ which education officer visited school ▪ which schools have been visited ▪ date and duration of visit ▪ type of road safety education ▪ no. of learners reached by education programme ▪ material they were exposed to 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) • eThekwini Transport Authority: Road Safety Branch 	ongoing		n/a

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
20. Skills audit of Road Safety Officers <ul style="list-style-type: none"> ▪ provide training to get them all to the same level 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	Jan 2005.	To be determined	
b: AREA WIDE				
21. Establish Community Based Road Safety Workgroups <ul style="list-style-type: none"> • Organize workshops to train parents, unemployed graduates, youth, older school children and any concerned citizens to carry on the road safety work at schools, churches and community centres <ul style="list-style-type: none"> ▪ Which trainers were trained? ▪ Name/location of Community forum? ▪ Material/type of training 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	During 2005 in focus areas Expand to all areas during subsequent years		
22. Trainers keep records and report back to RSEO and information is entered into database: <ul style="list-style-type: none"> ▪ Number of community members reached ▪ Name of community ▪ Type of activity ▪ Venue, date and duration 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service 	During 2005 in focus areas Expand to all areas during subsequent years		n/a
23. Nominate a Road Safety Champion in each school. The RSEO will check who the road safety champion in each school is at the start of each year	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	Annually		n/a
24. Determine which schools have the KZN-DoT education material, "child-in-traffic", STEP, available and which don't. <ul style="list-style-type: none"> ▪ Ensure that the necessary materials reach the educators in each school 	<ul style="list-style-type: none"> • Durban Metropolitan Police Service (RSEOs) 	In March annually, Ongoing		
25. Investigate Public-Private partnership funding for: <ul style="list-style-type: none"> ▪ poster campaigns ▪ Annual Schools July Road Safety poster competition prizes ▪ Junior Traffic Training Centres ▪ Community radio campaign 	<ul style="list-style-type: none"> • eThekweni Transport Authority: <ul style="list-style-type: none"> ▪ Road Safety Branch 	Ongoing		n/a
D. SECTOR: ENFORCEMENT				
a: BASICS				
26. Business Plan <ul style="list-style-type: none"> ▪ Indicate funding for coming year (include Arrive Alive Funding for equipment and overtime) 	Durban Metropolitan Police Service	Annually	R2.0m est.	To be determined
27. Offence rates to be sent to ETA: RSB	Durban Metropolitan Police Service	Monthly		n/a
28. Investigate cost to get booze buses up and running:	Durban Metropolitan Police Service	November 2004		n/a

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
29. Create a dedicated Road Safety Task Force (11 members): <ul style="list-style-type: none"> either 11 new officers or 11 assigned from general force Road Safety Task Force Officers must preferably hold a Traffic Officers Diploma 5 dedicated branded vehicles 	Durban Metropolitan Police Service	2005 5 members and 3 vehicles 2006 6 members and 3 vehicles	Operating Cost R680 000 Capital Cost R550 000 Operating Cost R820 000 Capital Cost R550 000	eThekwini Municipality
30. Provide information regarding the hours spent of traffic enforcement by the general force to ETA: RSB	Durban Metropolitan Police Service	Monthly		n/a
31. Electronic enforcement tender <ul style="list-style-type: none"> Road Safety Plan Objectives Included equipment able to collect general traffic data 	eThekwini Transport Authority	August 2004		
32. Outstanding Fines: Take up the issue with the NDoT regarding the judicial process. <ul style="list-style-type: none"> Reciprocal arrangement between municipalities for the serving of summons. 	<ul style="list-style-type: none"> eThekwini Transport Authority: <ul style="list-style-type: none"> Road Safety Branch 	July 2005		n/a
33. Investigate the legal implications regarding not re-issuing rank permits if there are outstanding fines and not renewing Operating licenses (renewable every five years) will not be renewed if there are outstanding fines <ul style="list-style-type: none"> Set up a database to check the fine status of all buses, taxis, metered taxis 	Durban Metropolitan Police Service: Public Transport Unit	2005	-	n/a
34. Challenge to the Taxi Industry to become accredited for 2010. Develop 5 year accreditation procedure:	Durban Metropolitan Police Service: Public Transport Unit eThekwini Transport Authority: Road Safety Branch	2005		n/a
35. Investigate the allegations of corruption in call centres: <ul style="list-style-type: none"> DMPS SAPS AEMS 	Relevant Institution	Ongoing		n/a
b: AREA WIDE				
36. Provide list of Hazlocs for targeted enforcement	eThekwini Transport Authority: Road Safety Branch	Monthly		n/a
37. Identify enforcement locations ETA :RSB to identify <ul style="list-style-type: none"> line patrols speed timing booze bus ops 	Durban Metropolitan Police Service eThekwini Transport Authority: Road Safety Branch	Monthly		n/a
38. Evaluation and Revision of Enforcement Strategy	Durban Metropolitan Police Service	Monthly		n/a
39. Deployment of Booze Buses <ul style="list-style-type: none"> Enforce drink driving, seatbelts, roadworthy 	Durban Metropolitan Police Service	Every 2 weeks		NdoT, eThekwini Municipality
40. Ongoing Enforcement: Speed Timing Unit <ul style="list-style-type: none"> RSB send locations to DMPS DMPS send violation info to RSB 	Durban Metropolitan Police Service: Speed Timing Unit eThekwini Transport Authority: Road Safety Branch	Ongoing		n/a

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
41. Taxi Industry Accreditation: <ul style="list-style-type: none"> ▪ Self imposed survey ▪ Passenger survey 	Durban Metropolitan Police Service: Public Transport Unit to facilitate eThekweni Transport Authority: Road Safety Branch	Monthly		n/a
c: ROAD SAFETY MANAGEMENT AREAS				
42. Carry out line patrols along the "routes to school" in the 4 road safety management areas	Durban Metropolitan Police Service	Ongoing		n/a
43. Targeted CBD enforcement, motorcycle police: <ul style="list-style-type: none"> ▪ parking/stopping in intersections and pedestrian crossings ▪ parking violations PUBLIC TRANSPORT <ul style="list-style-type: none"> ▪ boarding/alighting points of Public Transport Vehicles ▪ keeping intersections and pedestrian crossings clear ▪ impounding unroadworthy vehicles 	Durban Metropolitan Police Service	Ongoing		n/a
44. Durban CBD Campaign: Enforcement officers to patrol on horseback and on foot to warn and educate people about jaywalking.	Durban Metropolitan Police Service	Annually in June, week long campaign	To be determined	
E. SECTOR: EMERGENCY SERVICES				
a: BASICS				
45. Provision of a free emergency services number for eThekweni	eThekweni Transport Authority: Road Safety Branch to participate	2006		
46. Meeting with all emergency service providers to obtain voluntary co-operation, co-ordination undertakings: <ul style="list-style-type: none"> ▪ Department of Health ▪ eThekweni Fire ▪ DMPS ▪ SAPS ▪ SAPS Accident Unit ▪ AEMS ▪ Netcare 911 ▪ AA ▪ ER24 	eThekweni Transport Authority: Road Safety Branch	March 2005	-	n/a
47. Investigate the conditions of the licence to private emergency service providers. Need them to provide response time data.	eThekweni Transport Authority: Road Safety Branch	Aug 2005	-	n/a
48. Set up a response time database for all service providers and evaluate AEMS sample of response times	eThekweni Transport Authority: Road Safety Branch	sample	R10000	ETA
49. Investigate the contracting of private ambulance service providers e.g. Netcare by the Department of Health to supplement the provincial ambulance provision in eThekweni.	eThekweni Transport Authority: Road Safety Branch to facilitate	October 2005	-	n/a

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
50. Tracking systems to be installed on all emergency service vehicles, location and engaged/free capability (not crime tracker)	eThekwini Transport Authority: Road Safety Branch to facilitate	2006		
F. SECTOR: CAMPAIGNS				
51. Launch of the eThekwini Road Safety Plan <ul style="list-style-type: none"> ▪ Arrange function, high profile person (mayor) to introduce the plan ▪ statements to the press ▪ message on lights and water bills ▪ article in free metro newspaper ▪ Pledge to public of exemplary driving behaviour by municipal employees (6.5.2) 	eThekwini Transport Authority: Road Safety Branch Durban Metropolitan Police Service	Once plans operationalised		ETA
52. Holiday Arrive Alive <ul style="list-style-type: none"> ▪ Align eThekwini activities with national programme 	eThekwini Transport Authority: Road Safety Branch Durban Metropolitan Police Service	Christmas period	-	n/a
53. "Launch Safe Routes to School" in Road Safety Management Areas <ul style="list-style-type: none"> ▪ Letter to parents in child's writing (7.1.2) ▪ "Walking School Bus" with high profile person to "drive" the bus in each of the 4 road safety management areas (7.1.2) 	Durban Metropolitan Police Service (RSEO)	February 2006		
54. Arrive Alive Easter Campaign	eThekwini Transport Authority: Road Safety Branch Durban Metropolitan Police Service	April each year		
55. Learners Road Safety Poster Campaign (7.1.1) <ul style="list-style-type: none"> ▪ School has own name for their own campaign (7.1.1) – to be confirmed 	eThekwini Transport Authority: Road Safety Branch	Annually in July at start of 3 rd school term	To be determined	
56. Durban CBD Campaign(7.2.1): Media exposure, radio, metro newspaper <ul style="list-style-type: none"> ▪ Inform the general public about the pending campaign, two weeks notice ▪ Inform the public and transport operators what enforcement will be carried out in a fortnight's time. 	eThekwini Transport Authority: Road Safety Branch	Annually in June	To be determined	ETA
57. Durban CBD Campaign (7.2.1): Poster Campaign on light poles "Look before you walk!" Also use picture based message to cater for illiteracy	eThekwini Transport Authority: Road Safety Branch Durban Metropolitan Police Services (RSO-Edu)	Annually in June		
58. Durban CBD campaign: Durban CBD enforcement/education campaign, enforcement officers patrolling on foot and talking to the public.	Durban Metropolitan Police Service <ul style="list-style-type: none"> ▪ RSEOs ▪ Enforcement Officers 	Annually in June		

ACTIVITIES	RESPONSIBILITY	WHEN	COST (R)	FUNDING SOURCE
59. Durban CBD Campaign: High profile person to walk around in Durban CBD at launch of the CBD campaign and raise awareness regarding jaywalking	eThekweni Transport Authority: Road Safety Branch	Annually in June		

8. FREIGHT

8.1 Introduction

The eThekweni Transport Authority has started a process that will eventually lead to a comprehensive Freight Plan for the Municipality.

Current phases of freight plan

Current phases of this plan cover:-

- A basic understanding of the existing inadequacies of the freight system
- Insight into perceived problems from the perspective of operators, users and service providers
- Insight into possible freight impacts of proposed new developments within the Municipality

8.2 Freight Transport System

The movement of freight to/from and within eThekweni Municipality is carried out by a multi-modal transport system of shipping, air transport, road and rail transport and pipelines.

8.2.1 The Port of Durban

The Port, comprising 63 berths, handles some 60 million tons of freight annually which makes it the second busiest port (in terms of tonnage) in the southern hemisphere after Richards Bay. The harbour is accessible by both rail and road.

Port of Durban

Historically rail has transported the greater share of the freight demand, however, this has changed significantly over the last decade, with road transport now carrying a significant proportion of freight to and from the Port. This has occurred for two main reasons:-

- The decrease in the reliability, availability and total delivery time of rail services.
- The increase in the availability and reliability of road based services, and the improvement in road travel and costs.

Change from rail to road transport

8.2.2 The Road System

The eThekwini municipal area road system (see also Section 6) is a comprehensive network comprising municipal, provincial and national roads.

**Road
System**

Within the road system there are capacity limitations, which impact on road freight movements particularly in peak periods; not an uncommon situation in port cities. In particular, limited access capacity to/from the Port impacts on freight movement as well as contributing to congestion and environmental degradation in the CBD.

**Road
congestion**

8.2.3 The Rail Network

The rail freight network comprises a well developed local system and main lines to and from the city. The local system connecting the Point to the southern industrial areas, between the Port and the Airport, was designed to carry import and export cargo. Branch lines into the interior of the province were intended to open this interior and give support to the timber and agriculture industries. Main lines to and from eThekwini include:-

- The Durban - Gauteng line
- The Durban - Golela (Swaziland) line
- The Durban - Port Shepstone line

Rail lines

8.2.4 Pipelines

- Pipelines are a major transporter of liquids to/from and within eThekwini Municipality. Three of the four major national pipelines converge on Durban.

**Petronet
pipelines**

8.2.5 Durban Airport

The existing airport is situated 16km south of the Durban CBD, and there are currently plans being assessed to relocate the facility to the proposed iDube Tradeport to the north of Durban. From a freight perspective, the current airport is constrained by its short runway (2,4km), which cannot be used by fully loaded long-haul freight aircraft.

Historically export air cargo from Durban has been flown domestically to Johannesburg International Airport for transshipment to international flights for export. SAA also have dedicated freighter aircraft that carry freight, express cargo and mail.

Additionally, SAA and other airlines operating from Durban have overnight road based cargo services to Johannesburg.

Air cargo

There is no rail link to the airport, requiring all cargo to be transported to and from the airport by road.

8.3 Freight Demand and Use of the Supply System

8.3.1 Road Freight

Information in this section is drawn from The Freight Transport Databank for KwaZulu-Natal. Counts of heavy commercial freight vehicles were expanded to reflect annual truck movements across the eThekweni Municipal boundary. These are shown in Table 8.1.

Table 8.1 Annual Truck Volumes to and from eThekweni Municipal Area

Screenline Location	Truck Movements (2 Way)	
West	1 979 000	(66%)
North	931 000	(31%)
South	91 000	(3%)
	3 001 000	(100%)

Truck Volumes

By far the major movement is along the Durban - Gauteng corridor (66% of the total) with significant truck traffic (33%) on the Durban - Richards Bay corridor and a small volume (3%) on the Durban - Port Shepstone corridor.

In addition some 9,0m LDV's crossed these screenlines but no data is available for the freight tonnage which these vehicles may have carried. The tonnage of freight carried by the 2,9 million truck trips is shown in Table 8.2.

Table 8.2 Annual Truck Freight Tonnage to and from eThekweni Municipal Area

Screenline Location	Truck Freight Tonnage (2 Way)	
West	32 738 000	(71%)
North	12 338 000	(27%)
South	860 000	(2%)
	45 936 000	(100%)

Road freight tonnage

There is more or less an even split between inbound and outbound tonnage at each of these screenlines.

8.3.2 Rail Freight

Research shows that there has been a continuing decrease in general cargo carried by rail throughout South Africa since the early 1980's.

Decreasing use of rail

A comparison of road and rail tonnage shows that more than twice the rail tonnage is carried by road hauliers to and from eThekweni and the pattern is consistent irregardless of whether the services are towards the west, north or south.

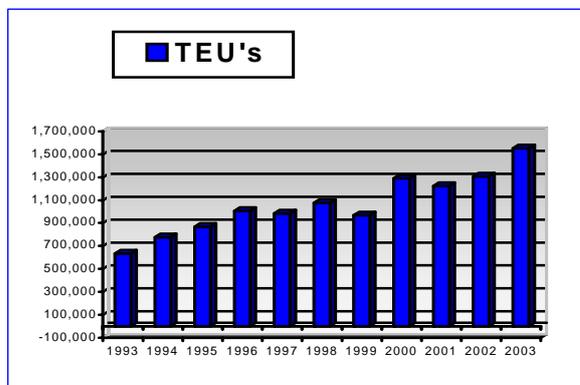
8.3.3 Freight through Port of Durban

The total freight tonnage processed through the Port in 2002/2003 is estimated at 58 million tons up from an estimated 54.1 million tons in 2001.

Petroleum pipeline

It is significant that the high volume petroleum category constitutes 45% of total tonnage through the Port. This commodity makes minimal demands on land side transport infrastructure, as most movements from discharge to the refineries and onwards, are effected by pipeline.

No of Containers (TEU's) Handled in Durban



Containerised cargo dominates the high-value end of the cargo spectrum, and is the fastest growing component of the Port's traffic (see following graph). To an increasing extent it is distributed by road rather than rail.

Source: National Port Authority

Break-bulk or conventional cargo represents a shrinking market in Durban's freight base as the container market increases, and as some break-bulk and conventional cargoes are now exported via Richards Bay.

**Declining
conventional
cargo**

As container volumes have grown, so has the proportion of containers moved by road rather than by rail. By 2003, 76% of non-transshipment container traffic, based on 'twenty foot equivalent units' (TEU's), was delivered or distributed by road, and only 24% by rail. The Durban Container Terminal (DCT) reports approximately 2 069 truck moves per day (ie. in and out of the Port) in 2003. This high volume of heavy vehicles leads to chronic road congestion in the immediate environs of the DCT, plus heavy traffic volumes in the Bayhead area.

8.3.4 Broad Road/Rail Split of Durban Port Traffic

No detailed data on a split of Durban harbour imports and exports between road hauliers and rail transport is available. It is generally agreed that road freight is responsible for the majority of port related cargo movements, and that road's share has been rising significantly.

**Increasing use
of road over rail**

This trend is indicative of the poor rail service levels when compared to road-based services. A more detailed analysis of the road/rail freight split to and from the Port is clearly required. The issues that need to be addressed are:-

- The user costs of the modes
- The reliability of the modes
- The availability of the services
- The delivery times associated with the use of each of the modes

8.3.5 Use of Pipeline Network

The pipelines currently move approximately 2,3 million tons of refined products and 4,6 million tons of crude oil per annum. The refined products line has potential for expansion up until about the year 2007 whereas the crude oil line is already running close to capacity.

**Pipeline
tonnage**

8.3.6 Durban Airport Freight Movement

Airfreight cargo handled at Durban Airport is mainly destined for Johannesburg Airport, with smaller quantities going to Cape Town, Port Elizabeth and East London. All cargo transported by road is destined for Johannesburg Airport.

SAA Cargo also provides a road freight service between Durban and Johannesburg Airports, handling larger cargo items not transported by airfreight. During 2003 an estimated 283 heavy vehicle trips were made transporting approximately 9 400 tons of cargo.

SAA cargo road freight

In 2003 there were approximately 11 000 tons of inbound airfreight to Durban International Airport and 4 000 outbound tons.

8.4 Future Generators of Freight

In total, some 44 projects were identified. The current status of these projects is as follows:-

Future freight generating projects

- Approximately 30% have been planned
- Approximately 40% are under discussion
- Approximately 30% are under investigation

Of the total some 10% are committed.

From the projects identified, retail and light industrial dominate in terms of numbers of projects, land take-up and freight movement activities. The total estimated freight traffic generated by the retail and light industrial categories accounts for over 70% of the total. Similarly, these categories account for 70% of the annual freight tonnage of some 84 million tons associated with the anticipated future developments.

Locationally, a significant proportion of the developments (approximately 40%) lie within a 15km radius of the Durban CBD, while over 60% lie within a 30km radius of the Durban CBD.

8.5 Problems and Issues

8.5.1 Road/Rail Freight Modal Mix

As a port city eThekweni is a major generator/attractor of freight to and from the hinterland. Some of the problems related to the operations of the port and the negative impacts on the surrounding urban development emerge from the imbalance between the appropriate use of road and rail freight service options.

As stated in the Provincial White Paper on Freight Transport Policy 2004, the main line from Durban and Gauteng operates at 35% of the line capacity and could handle a far higher portion of long distance freight, if equipment and systems were upgraded. Similarly the line between Durban through Golela to Swaziland has spare capacity. Branch lines throughout the province “including the Durban - Port Shepstone line are under-utilised but in need of urgent rehabilitation...”.

Limited use of rail

Whilst rail carries more than 40% of bulk commodities in the busy Durban/Gauteng corridor, general freight haulage by rail is much lower and on all other corridors where rail and road provide a parallel competitive service, road on average transports 80% of all the cargo. Further, road freight is the dominant means of transport for local and short haul demand.

Dominant use of road

Addressing these problems is predominantly a national and to a lesser degree provincial imperative. Current national and provincial freight policy suggests that in the future many of the problems giving rise to these imbalances will be addressed. It is therefore reasonable to expect that this will result in an increasing utilisation of rail which will reduce some of the negative impacts of transporting freight in and through eThekweni Municipality.

Future use of rail

8.5.2 The Port of Durban

8.5.2.1 Planning

Both the Port Authority and Municipal officials have expressed concern that strategic planning by the other party is largely carried out in isolation, with limited opportunity to influence the other’s strategic planning proposals.

Port planning

Whilst national and provincial policy recognise the need for integrated and coordinated planning at all levels of government, the interpretation of this in practical terms needs to be pursued further.

8.5.2.2 Port Access

Container Terminal access via Langeberg and Bayhead Roads has serious capacity limitations and was identified as the most serious current problem by the various stakeholder groups.

Container terminal access

Durban Harbour access was also raised as a problem of lesser severity.

Durban harbour access

8.5.3 Airport Access

Access to the Swiss Air Cargo depot on the south side of the airport is problematic due to there being a single point of access to the airport. Consequently, heavy vehicles operate in mixed traffic with light vehicles when accessing this cargo depot.

Airport access

8.5.4 Road Congestion

Heavy vehicles, most of them container carrying trucks contribute significantly to congestion on the road system to/from the Port including the CBD road system.



Road congestion

The rapid growth in container freight through the Port has been accompanied by a major shift in land side transport from rail to road.

This phenomena together with the growth in container traffic has contributed greatly to congestion related issues in and around the Port, the CBD and on sections of the metropolitan road system.

8.5.5 Road Safety

It has been estimated that on average 18% of all vehicle accidents in the eThekweni municipal area involve heavy vehicles. A number of factors contribute to this poor road safety record for the heavy vehicles:-

Road safety

- Congestion and associated driver frustration accompanied by lack of visible law enforcement contributes to irresponsible driver behaviour
- Excess speed and reckless driving
- Toll avoidance contributes to unsafe operation and congestion on alternative, less suitable, routes

- The common practice of overloading increases the risk of accidents
- Defective equipment in the primary safety systems of vehicles including brakes, steering, tyres, lights and other defects

8.5.6 Overloading

Overloading is a major issue not only contributing to accidents involving heavy vehicles but to the deterioration of road pavement structures.

Overloading

8.5.7 Hazchem Routes

The lack of defined hazchem and dangerous goods routes in the Municipal area is a serious shortcoming of the current road freight system.

Hazchem Routes

8.5.8 Pollution

Road transport is recognised as a major contributor to air pollution in large cities.

Pollution

8.5.9 Law Enforcement

The level of resources affects the extent of policing possible and the visibility of law enforcement on the road system.

Law enforcement

Lack of manpower resources and weigh bridge facilities were also seen as contributing factors to the extent of overloading violations.

8.5.10 Emergency Services

The emergency services have limited resources, particularly at night to deal with road accident emergencies, especially those required to deal with hazardous goods spills.

Emergency services

8.6 Freight Plan Projects

An initial response to some of the key problems and issues includes a number of planning projects as well as infrastructure projects that form part of the Implementation Plan - Section 12 of the ITP.

Planning projects include the development of a road based:-

- Hazchem route network
- Freight route network
- Abnormal load network
- Investigation of Truck Stop



**Freight plan
projects**

- Durban container terminal precinct (joint project: KZN province/National/ETA)

Capital infrastructure roads projects that form a part of the five year ITP programme in Section 6 - Roads, include:-

- The Edwin Swales Drive (M7) upgrade from the N2 freeway to Titren Road (see also Section 6.3.2 - Project 19)
- Bayhead Road Extension over the Southern Freeway including the new Kongela Bridge and access to Edwin Swales Drive via Sydney and Umbilo Roads (See also Section 6.3.2 - Project 20)
- Implementation of hazchem routes (planned above)

In addition, the five year ITP programme will include upgraded freight management infrastructure to the extent of R5,0 million. The exact nature of the infrastructure will be defined in the next phases of the Freight Plan.

9. TRAFFIC MANAGEMENT AND CONTROL

In the broadest sense urban traffic management and control comprises traffic control systems, with the integrated application of intelligent transport systems (ITS) technology and various aspects of information management and enforcement systems.

The application of these systems and technologies is geared towards maximising the efficient and safe use of existing infrastructure.

Section 9 of the ITP reviews the current status and development proposals in traffic management and control highlighting those aspects that form part of the Implementation Plan for the ITP.

9.1 Urban Traffic Control (UTC) System

The existing system is currently being upgraded as follows:-

- Some 700 controllers, now in excess of twenty years old and beyond serviceable limits are being replaced.
- The in-station (centralised computer) controlling some 400 signals in an area traffic control (ATC) system is being upgraded including dedicated cable connections to the outstations (traffic signal controllers).
- Possible introduction to LED, high light intensity, low maintenance signal heads (over 3 year period).
- Real time adaptive control using the SCOOT software programme, in addition to controlling the Victoria Embankment, will be extended to include:-
 - Intersections at Umgeni Road and Inanda Road with the N2 service road
 - Argyle Road between Brickhill and Cowey Road



Prioritised public transport routes under real time signal control, using BUS SCOOT software, is being considered as a pilot project; location as yet undetermined.

Variable message signing (VMS) currently (in use) on the Southern Freeway for providing route guidance and navigation information would form part of such a pilot.

In future, VMS may also be used in conjunction with automotive detection systems for driver information and possible diversion to alternative routes. However, no firm plans exist in this regard at this point in time.

9.2 Integrated Data Base

In Year 2000 Durban initiated Phase 1 of an integrated data base called TIDE. The primary focus of Phase 1 scheduled for completion in 2004 was to link existing traffic databases including:-

Integrated data base

- Traffic signals database
- Traffic accident database (incl. locations database)
- Traffic volumes database
- CCTV database
- Area Traffic Control System database

GIS and LAN capabilities were introduced as part of the above.

Subsequent phases of development of TIDE will consider potential use and applications of this tool for analysis purposes and real time as well as passive information communication to road users and enforcement.

Future development of TIDE

9.3 ITP Programme

Currently the UTC signal system upgrade and LED signal heads are the priority projects for the first ITP.

ITP 2004/05 projects

The ongoing development of TIDE and the roll-out of various pilot projects requiring additional CCTV installations and/or extended communication links between central control and the outstation locations will form a part of future versions of the ITP.

10. SPECIAL PROJECTS

10.1 Introduction

Apart from projects identified in the various sections of the ITP and consolidated in the Implementation Plan - Section 12, there is a category of projects that qualify as Special Projects. These are 1) The People Mover System and 2) projects primarily focussed on meeting transport needs for the 2010 FIFA World Cup.

10.2 The People Mover Project

This project is planned as a tourist focussed public transport system and service in the Durban CBD, connecting key activity centres in that area of the City.

The existing public transport system and services to the Durban CBD serve the needs of daily commuters and the introduction of a prioritised public transport CBD distribution system, Project 6 in the Implementation Plan, will significantly enhance public transport services for commuters with CBD origins/destinations.

Whilst this system provides a measure of mobility in the CBD for tourists, it does not focus specifically on the needs of this group.

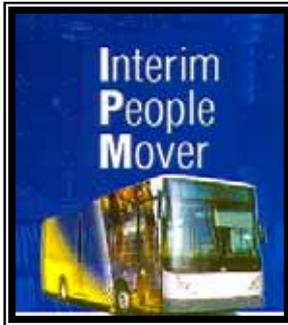
The concept of the People Mover System is to provide the alternative of an upmarket system and service with levels of convenience, comfort and security expected by tourists travelling in any first world city throughout the world. The objective then is to ensure tourists can reach various interest and activity destinations in the CBD using such a public transport system.

10.2.1 Phased Implementation

It is intended to develop and implement the People Mover System on a phased basis. Various concepts have been considered for the long term including monorail type vehicles operating on dedicated right-of-way.



The capital and operating cost along with the complexity of implementing such systems preclude introducing such technology and levels of sophistication in the short term. Consequently, as an interim 3 year solution, a pilot system will be introduced based on the use of state-of-the-art midibus vehicles operating in mixed traffic along defined routes in the CBD.



Ten such vehicles with seated capacity of 35 will be used to provide this service. These vehicles will be fully air-conditioned, with a spacious seating configuration, and fully accessible for wheel chair passengers. CCTV camera surveillance on-board and at terminals will ensure a high level of personal security.

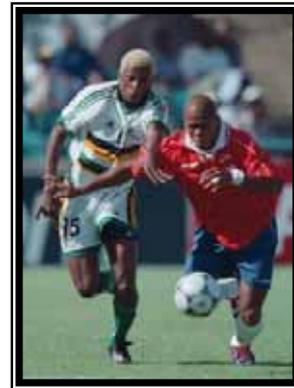
Tenders have been received for the system vehicles which will be owned by eThekweni Municipality. The service will be operated under contract to the Municipality, and it is anticipated that a functional system will be operational before year end.

10.3 2010 FIFA World Cup Projects

Various transport projects form part of the transportation strategy for the 2010 Soccer World Cup. Apart from meeting the transport needs of this event benefits for the City overall will be realised both before and after the event.

10.3.1 Location of the Stadium

Based on an assessment of various criteria Kings Park was selected as the best location for the World Cup event. Assessment criteria included:-



- Minimise total origin-destination travel distance
- Minimise total travel time
- Ability to connect to high capacity public transport network and modes
- Impact on long term usage patterns
- Requirements to be fully operational within the planning period

Features of the Kings Park location were seen to be:-

- The site is located near the high capacity public transport system (rail), which is a FIFA requirement for any match
- 60% of eThekweni Municipality is within 30 minutes of the stadium
- The stadium is located along the north-south priority transportation corridor, although pedestrian linkages are poor
- The existing stadium and infrastructure are in place, though modifications to the stadium and road and rail infrastructure are needed
- Large areas of parking are available although provision would be needed for additional capacity

10.3.2 The Transportation Strategy

The transportation strategy comprises a number of projects and initiatives. Infrastructure projects include:-

- Reorganisation of the Inner City public transport system including the proposed People Mover
- An upgrade of Argyle and Stanger Street intersection
- Upgrade of rail stations at Crossmoor, Hilary, KwaMashu and Umlazi
- A new rail station at Kings Park
- Improved access from the Western Corridor via the Cannongate overpass through Warwick Avenue area
- The Walnut Overpass
- Various minor intersection upgrades

Other related projects include:-

- Upgrade of rail rolling stock

- Intelligent Transport System (ITS) solutions to minimise traffic congestion and access time to/from the stadium
- Enhanced safety and security systems for public transport users and pedestrians
- A rationalisation and extension of the available parking supply for the event
- Rationalisation and accommodation of pedestrian movement activities in the area

Some of the projects in the transportation strategy form an integral part of the ITP programme (Section 12) others will be funded by extraordinary funding related to the World Cup.

10.3.3 Legacy of the Transport Strategy

Major benefits will be realised in the post 2010 transportation system. These include, an improved public transport system and in particular the north-south rail system which is the backbone of the proposed public transport system in the ITP. The needs of special category passengers will also receive attention within the improved system.

Major congestion and safety issues in the Warwick Junction area will be overcome with the construction of the Cannongate overpass. In addition the ITS solutions will improve traffic operations in the area as will various intersection upgrades proposed as part of the strategy.

11. FUNDING STRATEGY

11.1 Introduction

Increasingly world-wide the importance of having an efficient transport system is recognised in terms of the vital role transport plays in economic and social development. As an essential catalyst for development the road network must be in a sound condition as an underdeveloped or poorly maintained network will act as an inhibiting factor on sustainable development. Equally the quality of life for urban residents and their ability to access social and economic opportunity is largely determined by the transport system serving the community. In this regard public transport is of particular importance.

Need for efficient transport system

This section of the ITP looks at current and possible future funding sources for capital projects in the transport sector. Within this context, limitations and a possible longer term strategy for a way forward are also considered.

11.2. Historic and Current Funding Levels

Historically insufficient funding from all levels of government in eThekweni Municipality has created a major backlog in the provision of public transport systems and support infrastructure as well as in upgraded and new road construction and maintenance.

Table 11.1 shows the level of expenditure on transport infrastructure over the past five years, as funded from direct and indirect revenue sources. In order to see the change in funding levels the table is presented in terms of real value, benchmarked to year 2000.

Historic/current funding

In general the direct budget allocation for implementation projects is unlikely to rise significantly and in real terms likely to decrease. Earmarking general budget funds for road infrastructure lends itself to a certain amount of uncertainty and unpredictability in the consistency of the flow of funds. Supplementing this indirectly from eThekweni controlled, transport related revenue sources shown in Table 11.1 has limited impact on funding high capital costs of maintaining and improving road infrastructure. Furthermore much of this revenue is used to cover administration costs and the potential for generating further revenue from these sources or diverting a portion of these funds towards infrastructure improvements is relatively small.

**Table 11.1 Transport Infrastructure Funding
Years 2000 - 2004
(Real values based on Year 2000)**

Source	R Millions per Year				
	2000	2001	2002	2003	2004
Budget: Direct					
Municipal Capital Roads & Transport	147.2	164.1	141.0	276.9	293.5
Special Grants (NDOT & KZN DOT)	0	0	15.8	2.8	5.8
<i>Sub Total - Direct</i>	<i>147.2</i>	<i>164.1</i>	<i>156.8</i>	<i>279.7</i>	<i>299.3</i>
Budget: Indirect					
Parking Meters/Bays	0	0	0	0	0
Parking Fees/Rentals	0	0	0	0	
P.T. Office Rentals	0	0	0	0	
Bus Rank Permits	0	0	0	0	
Taxi Rank Permits	0	0	0	0	
Bus Shelter Advertising	0.3	0.3	0.3	0.3	0.3
Hire of Traffic Signals	0.3	0.3	0.3	0.3	0.4
Accident Report Sales	0	0.4	0.6	0.5	0.6
E.T.A. Penalties (Bus Contracts)	0	0	0	0	2.0
Contract Bus Adverts	0	0	0	0	0
<i>Sub-Total Indirect</i>	<i>0.6</i>	<i>1.0</i>	<i>1.2</i>	<i>1.1</i>	<i>4.3</i>
TOTAL	147.8	165.1	158.0	280.8	303.6

11.3 Potential of Additional Locally Generated Revenue Sources

In the absence of adequate capital funding from existing revenue sources new methods of generating funds have been investigated. These include the following:-

- **Private Off-street Parking:** The annual revenue that could be expected from a R10 per month per bay across all land uses is R17 million. Targeting only selected land uses, specifically those generating peak period traffic would reduce this figure to R8 million per annum.
- **Office Rental Levy:** related to parking bays per 100 square metres would be an optional method.
- **Municipal Advertising:** associated with transport facilities could grow to R8-R10 million per annum.
- **Traffic Fines and Electronic Enforcement Revenue:** could reasonably in part be directed towards financing the Road Safety Plan.

**Potential funding
existing sources**

- **Weighbridge Fines:** could address some of the maintenance costs arising from overloaded vehicle damage to the road system.
- **Contract Bus Advertising:** is approximately R1 million per annum on current contracts but could increase with future contracts.
- **A Development Levy:** on new properties could be imposed.

11.4 External Funding Sources

A number of external funding sources could contribute to specific transport infrastructure projects. These sources which fall outside the mainstream municipal transport budgeting sources include the following:-

- Funding Agencies, Development Banks
- Banking Institutions
- KZN Growth Fund
- KZN Municipal Infrastructure Grant
- Specific Taxes and Levies

External funding sources

The extent and conditions for funding from each of these sources would depend on the nature of the specific project. In some instances it would be grant funding and in others it would amount to a loan with specific repayment requirements.

The most applicable surrogate component of the user pays principle is that of a fuel levy or a surcharge on licence fee. It is simple to collect (taxed at source), reflects on the distance travelled and use of roads is proportionate to the type of vehicle in terms of consumption (both private and commercial) and for a small levy can generate a large and sustainable amount of funding (3 cents a litre on fuel would generate around R50 million per annum). However, this concept, which is probably the most efficient and equitable surrogate means available for funding transport infrastructure or the 'user pays' principle, has been investigated for a number of years and to date has been blocked by National Government.

External funding sources

Funds can also be generated from alternative funding sources such as levies on non-users who benefit from improvement and expansion of the road network. Such levies could be in the form of a payroll tax or surcharge on property tax either generally or more specifically located. Commercial development and exploitation of land if in conjunction with road improvements, could also bring in sizeable funds. The scope for raising debt finance has been considered and the appropriate debt instrument evaluated.

11.5 The Way Forward

In summary, the current situation reflects the following:-

- There is indication of an expected direct expenditure cut on transport of some 40% (Year 2004 to 2005);
- There is a growing need for capital investment in the transport systems and currently there is a backlog which current funding levels do not address;
- The extent of future municipal capital allocations to transport by direct and indirect funding is uncertain; indicative budgets suggest a shortfall in funding needed for the 5 Year ITP implementation plan;
- There are a variety of other potential sources for raising funds for transport at the local level; some of these based on the user pays principle. The fundamental question of such funds being dedicated to transport needs to be considered;
- There are a variety of potential external funding sources with varying requirements for repayment depending on the source and nature of the funding. Some of these have been used but only to a limited extent.

Way forward

Against this background it is clear that unexploited and unexplored sources to date need to be pursued as part of a comprehensive funding strategy. Increasingly there is recognition of the need and support for the 'user-pays' principle and where applicable this should be carefully evaluated.

Pilot funding projects may be possible and in this regard a programme will be investigated and developed.

In many instances change of legislation is required and in some instances policy at national and/or provincial levels may also need to be changed.

12. IMPLEMENTATION PLAN 2005-2010

12.1 Introduction

This section sets out the short term, 5 year programme of capital projects for eThekweni Municipality for the following sectors of the transport system:-

- Public Transport
- Road Safety
- Freight
- Traffic Management
- Roads

**Format of
Implementation
Plan**

The consolidated schedule of costed projects is prioritised with cashflow for the 5 year period 2005/06 to 2009/10. In addition the expenditure is shown for 2004/05. The source of identified projects and the prioritisation process are described below.

Amongst the above transport sectors, public transport stands out as the sector that requires a long term strategy framework to contextualise and define the short term programme. Key aspects of this long term strategy for public transport are described in this section.

12.2 Project Identification and Prioritisation

12.2.1 Project Identification

Projects in the consolidated list of transport projects are sourced from all planning departments in the Municipality as well as external provincial and national Departments of Transport, the Ports Authority, Airport Company SA and SARCC.

The inclusion of projects “funded by others” is important, as collectively these with the projects requiring funding from the Municipal capital budget represent the entire programme of capital projects for the ITP. In particular, rail initiatives that must be funded by SARCC/NDOT need to be highlighted as they are essential to the implementation of related projects funded by eThekweni. (Refer 12.4)

**SARCC/NDOT
funded projects**

12.2.2 Project Prioritisation

The team participating in prioritisation of the consolidated list of projects included all relevant departments in the Municipality, and the Department's of Transport, all of whom were represented on the Working Group for the preparation of the ITP. Consequently, representatives were familiar with the different transport components of the ITP having attended various presentations of the sectoral plans.

Participants in project prioritisation

The identification and prioritisation of the projects was considered in terms of the development imperatives of the IDP.

IDP

The process also recognised the advent of the 2010 Soccer World Cup and the need to ensure transport solutions are in place for that event.

World Cup 2010

In the event of Municipal budget funding shortfalls, some of the prioritised projects shown in the ITP may need to be delayed for the following year(s).

12.3 Five Year Implementation Programme

The five year programme for transport capital projects is shown in Table 12.1. Required expenditure for each project is shown on an annual basis. Current expenditure (2004/05) is also shown.



Whilst not specified in the ITP it needs to be recognised that capital expenditure has the related need for an increase in the operating budget; the nature and extent of the operating budget depending on the type of capital projects in the programme (eg. new 'booze buses' in the Safety Programme also require manpower and other resources).

At the same time it should be recognised that delaying capital expenditure on needed projects can place undue pressure on other related infrastructure with an associated increase in maintenance costs.



**Table 12.1 eThekweni Integrated Transport Plan
Capital Projects and Cash Flow: Proposed 5 Year Programme 2005-2010**

Ref No	Project Category and Description	Cost Est (R mill)	Current 04/05	5 Year Programme Requirements (R millions)						Expected Funding Source	
				05/06	06/07	07/08	08/09	09/10	Total		
Public Transport Projects											
Public Transport - Rail		772.8								652.8	
1	Replacement of rail rolling stock removed from service, by 10M's over 5yrs commencing 06/07	600.0			120.0	120.0	120.0	120.0			National
2	Rail extension to Link City - operational by 2010	150.0		12.0	38.0	50.0	50.0				National
3	Kings Park Rail Station	2.8				2.8					National
4	Bridge City PT interchange	20.0					20.0				PPP
Strategic PT System		140.0								137.4	
5	Various Projects iro Fundamental Restructuring					17.4	50.0	70.0			Metro
Public Transport - TDM/Priority		11.0								9.0	
6	CBD PT circulation system incl traffic management system				1.0	8.0					Metro
Public Transport - Taxi Holding Areas		5.2								5.2	
7	Umgeni/Churchill Road			2.5							Metro
8	Canberra/Williams Road			2.5							Metro
9	Bluff Road			0.2							Metro
Public Transport - Rural Ranks		34.0		4.0	3.0	10.0	10.0	7.0		34.0	Metro & Rural ABM
10	Inchanga										Metro
11	Adams										Metro
12	Ngcolosi										Metro
13	Umzinyathi										Metro
14	Umkomaas										Metro
15	KwaSomubi										Metro
16	Molweni										
17	Mpumalanga										
18	Umgababa										Metro
Public Transport - Urban Ranks		59.6								55.6	
19	Hillcrest Taxi Rank		3.7								Metro
20	Albert Luthuli Rank - Phase 1		0.3								Metro
	- Phase 2			0.5	3.0	2.0					Metro
21	Natal Technikon Rank			0.5	1.0	2.5					Metro
22	KwaMnyandu Rank			0.5	0.5						Metro
23	Kingsburgh Rank					1.5	2.0				Metro
24	Mansfield (Bus) Rank						12.0				Metro
25	Canongate Rank						3.5				Metro
26	Cartwright Flats North Rank						3.8				Metro
27	Mangosuthu Highway @ Road 1202						2.0				Metro
28	Isipingo Rail Rank							5.8			Metro
29	Merebank Station Rank							0.8			Metro
30	Toti CBD Rank							3.0			Metro
31	Phoenix CBD Rank							4.5			Metro
32	Gateway Rank							3.2			Metro
33	Tongaat Rank							1.5			Metro
34	Verulam CBD Rank							1.5			Metro
Public Transport - Shelters/Laybys		18.3								15.8	
35	Various Locations		2.5	0.8	1.0	6.0	4.0	4.0			Metro

Ref No	Project Category and Description	Cost Est (R mill)	Current 04/05	5 Year Programme Requirements (R millions)						Expected Funding Source
				05/06	06/07	07/08	08/09	09/10	Total	
36	Public Transport - Sidewalks/Lanes/etc Various Locations	41.0	5.0	4.0	7.0	8.0	9.0	8.0	36.0	Metro
37	Public Transport - Pedestrian Bridges Various Locations	27.0	3.0	4.0	4.5	4.5	5.5	5.5	24.0	Metro
38	Public Transport - Ablution Facilities New & upgraded facilities	6.5	1.5	1.0	1.0	1.0	1.0	1.0	5.0	Metro
39	Public Transport - Special Needs Infrastructure	21.0		1.0	5.0	5.0	5.0	5.0	21.0	Metro
40	Public Transport - Taxi Recap Modify existing ranks for Recap	3.0					3.0		3.0	Metro
Public Transport Projects - Summary		From Mun. Capex Budget		21.5	27.0	65.9	110.8	120.8	346.0	
		Other Funding		12.0	158.0	172.8	190.0	120.0	652.8	
		PT Totals		33.5	185.0	238.7	300.8	240.8	998.8	
Road Safety Projects									64.9	
41	Six Vehicles for dedicated safety unit	1.1		0.6	0.5	-	-	-	1.1	DMPS Budget
42	2 New "Booze" buses	2.0		-	1.0	1.0	-	-	2.0	DMPS Budget
43	Vehicles for dedicated RSEO	1.1		-	-	0.6	0.5	-	1.1	DMPS Budget
44	Haz Chem routes (signage, markings, limited roadworks)	2.0		2.0					2.0	Metro
Road/intersection improvements (local traffic safety)		37.2							34.2	
45	Various Locations		3.0	3.0	7.2	8.0	8.0	8.0		Metro
Traffic calming - higher order roads		22.0							19.0	
46	Various Locations		3.0	2.5	3.0	4.5	4.5	4.5		Metro
Traffic calming - lower order roads		18.0							5.5	
47	Various Locations		12.5	0.5	1.0	1.0	1.5	1.5		Metro
Roads Safety Projects - Summary		From Mun. Capex Budget		8.0	11.2	13.5	14.0	14.0	60.7	
		DMPS Funding		0.6	1.5	1.6	0.5	-	4.2	
		Safety Totals		8.6	12.7	15.1	14.5	14.0	64.9	
Freight Projects		83.4							45.5	
48	Edwin Swales (M7) (N2-Titren)		34.6							Metro
49	Bayhead Rd Ext. over S. Freeway		3.3	2.5	18.0	20.0				Metro
50	Freight management infrastructure					5.0				Metro
Freight Projects - Summary		From Mun. Capex Budget		2.5	18.0	25.0	-	-	45.5	
		Other Funding		-	-	-	-	-	-	
		Freight Total		2.5	18.0	25.0	-	-	45.5	
Traffic Management Projects		100.7							81.6	
51	ATC System Upgrade		13.6	13.0	13.0	4.0				Metro
52	Intersection Signalisation		3.1	2.7	3.4	4.0	5.5	6.0		Metro
53	LED Installation Programme		2.4		2.0	2.0	10.0	16.0		Metro
TM Projects - Summary		From Mun. Capex Budget		15.7	18.4	10.0	15.5	22.0	81.6	
		Other Funding		-	-	-	-	-	-	
				15.7	18.4	10.0	15.5	22.0	81.6	

Ref No	Project Category and Description	Cost Est (R mill)	Current 04/05	5 Year Programme Requirements (R millions)						Expected Funding Source
				05/06	06/07	07/08	08/09	09/10	Total	
Roads Projects									1860.8	
54	Southern Freeway Rehabilitation	55,0	20,0	35,0						Metro
55	Western Freeway Rehabilitation	90,8	3,8	40,0	47,0					Metro
56	M4/Quality Street Interchange	30,0	12,5	1,0						Metro
57	Outer West Road Improvements		3,0	8,0	17,5	16,2				Metro/KZN
	Existing Local Roads Projects including:- (Refer also to Ref. No. 77)									
58	- Nazareth residential roads	6,2	5,2	1,0						Metro
59	- Carrick Road upgrade incl new bridge	6,0	6,0							Metro
60	- Intake Road bridge	1,9	1,9							Metro
61	- Dassenhoek rural roads	5,7	5,7							Metro
62	- Matwabula Road upgrade	6,0	6,0							Metro
63	- other	1,4	1,4	15,0	25,0	45,0				Metro
64	North Coast Road - from Stanhope Rd to Blackburn Rd	85,0								Metro
65	Rural Community (EPWG) Roads Prog. (Phase 2)	33,8	33,8							Metro
66	Point Rd/Shepstone Rd one way pairing	135,0		55,0	80,0					Separate
67	New major road MR577 from KwaDabeka to Duff's Rd	450,0		150,0	150,0	150,0				KZNDOT
68	N3 lane balance between N2 & Westville Interchange	20,0					20,0			NRA
69	N3 lane balance between Westville I/c & Paradise Valley I/c	5,0					5,0			NRA
70	Hans Dettmann/Wiltshire Rd intersection	2,0					2,0			KZNDOT
71	Rural Community (EPWG) Roads Prog (Phase 3)	51,6		51,6						Metro
72	Stanger St/Argyle Rd Interchange	65,0		2,0	25,0	31,0	7,0			Metro
73	Musgrave Rd & Essenwood Rd one way pairing	1,5		1,5						Metro
74	Brickfield Rd Upgrading - Sparks Rd to N3	32,0			10,0	22,0				Metro
75	Cato Manor Arterial North (M10) - N3 to Booth Rd	63,0			2,0	26,0	35,0			Metro
76	Cato Manor Arterial South (M10) - M7 to Booth Rd	73,0			1,0	22,0	25,0	25,0		Metro
77	Higher Order Road Rehabilitation	98,0				30,0	33,0	35,0		Metro
78	N2 Interchange Upgrades - short term	5,0			4,0	1,0				Metro/NRA
	plus NDOT contribution to above	1,0?				1,0?				
79	Nandi Dr - North Coast Rd to Mandela Rd (2+2 Lanes)	40,0	10,0	20,0	10,0					Metro
80	Existing Local Roads Projects (Refer 54-59)	22,0		11,0	11,0					Metro
81	Rural Comm (EPWG) Roads Prog (Phase 4)	10,0			10,0					Metro
82	Cannongate (elevated) - Inbound	97,5		0,5	2,0	47,5	48,0			Metro
83	Cannongate (elevated) - Outbound	101,0				49,0	52,0			Metro
84	Berea and N-S Link	27,0						27,0		Metro
85	Rural Comm (EPWG) Roads Prog (ongoing)	10,0				10,0				Metro

Ref No	Project Category and Description	Cost Est (R mill)	Current 04/05	5 Year Programme Requirements (R millions)						Expected Funding Source
				05/06	06/07	07/08	08/09	09/10	Total	
86	Booth Rd (M32) Spine Rd to Francois Rd	50.0					50.0			Metro
87	Francois Rd (M32) - Booth Rd to University	8.0					8.0			Metro
88	D403 Ext - Inanda to R102 Verulam	10.0					10.0			Metro
89	North Coast Rd (R102) Upgrade - Verulam to Phoenix	25.0					25.0			Metro
90	South Coast Rd (R102) from Bayhead to M7	4.0					4.0			Metro
91	North Coast Rd through Mt Edgecombe	15.0					15.0			Metro
92	Umhlanga Rocks Dr/Northway Intersection	5.0					5.0			Metro
93	Improved connections from Newlands W. Dr. (M23) to MR577	5.0					5.0			Metro
94	Inanda Rd (M21) at NPC factory	8.0					8.0			Metro
95	Inanda Arterial West	70.0						70.0		Metro
96	Inanda Arterial East	70.0						70.0		Metro
97	La Mercy I/c on N2 freeway with link to R102, as part of new King Shaka airport & iDube Tradeport	40.0					20.0	20.0		NRA/KZNDOT
Roads Projects - Summary		From Mun. Capex Budget		186.6	164.5	300.7	330.0	227.0	1208.8	
		Other Funding		205,0	230,0	150,0	47.0	20.0	652.0	
		Roads Total		391.6	394.5	450.7	377.0	247.0	1860.8	
CAPITAL PROJECTS - SUMMARY		From Mun. Capex Budget		234.3	239.1	415.1	470.3	383.8	1742.6	
		Other Funding		217.6	389.5	324.4	237.5	140.0	1309.0	
		Total Funding		451.9	628.6	739.5	707.8	523.8	3051.6	

Table 12.2 is a summary of the municipal budget allocation to each transport sector for each of the five years in the short term programme. In terms of the programme cost estimates municipal expenditure on public transport would increase from approximately R23 million in Year one to R107 million in Year 5 an increase from 9% of the total budget to 34%. This expenditure excludes the considerable expenditure from national government on upgrade and expansion of rail service in the North-South Corridor, a commitment essential to the roll out of related public transport projects funded by the Municipality in Years 3 to 5.

**Increased
expenditure on
public transport**

Table 12.3 is a summary of all expenditure required from the Municipal capex budget plus funding from other sources including private and public sectors.

During the five year short term programme a major investment in rail is needed and expected from national funding augmented by considerable Municipal investment in support of the development of a cost effective, efficient public transport system. The only other transport sector where external funding is expected is the roads programme where 37% of the funding is expected from NDOT, KZNDOT and the private sector.

**Total expenditure
in 5 year prog.**

**Table 12.2 Summary of Municipal Budget Allocation by Transport Sector
Five Year Programme 2005-2010**

		R millions by Year					
		05/06	06/07	07/08	08/09	09/10	TOTAL
Public Transport	Total from Munic. Budget	21.5	27.0	65.9	110.8	120.8	346.0
	% of Total Budget	9%	11%	16%	24%	31%	20%
Safety	Total from Munic. Budget	8.0	11.2	13.5	14.0	14.0	60.7
	% of Total Budget	3%	5%	3%	3%	4%	3%
Freight	Total from Munic. Budget	2.5	18.0	25.0	-	-	45.5
	% of Total Budget	1%	7%	6%			3%
T.M. (Incl. ATC)	Total from Munic. Budget	15.7	18.4	10.0	15.5	22.0	81.6
	% of Total Budget	7%	8%	2%	3%	6%	5%
Roads	Total from Munic. Budget	186.6	164.5	300.7	330.0	227.0	1208.8
	% of Total Budget	80%	69%	73%	70%	59%	69%
Total All Sectors		234.3	239.1	415.1	470.3	383.8	1742.6
Municipal Capital Budget		100%	100%	100%	100%	100%	100%

**Table 12.3 Summary of Proposed Expenditure by Transport Sector - All Funding Sources
Five Year Programme 2005-2010**

		R millions by Year					
		05/06	06/07	07/08	08/09	09/10	TOTAL
Public Transport	Total from Municipal Budget	21.5	27.0	65.9	110.8	120.8	346.0
	Funding from Other Sources	12.0	158.0	172.8	190.0	120.0	652.8
	Total	33.5	185.0	238.7	300.8	240.8	998.8
	% of Total Budget	7%	29%	32%	42%	46%	33%
Safety	Total from Municipal Budget	8.0	11.2	13.5	14.0	14.0	60.7
	Funding from Other Sources	0.6	1.5	1.6	0.5	-	4.2
	Total	8.6	12.7	15.1	14.5	14.0	64.9
	% of Total Budget	2%	2%	2%	2%	3%	2%
Freight	Total from Municipal Budget	2.5	18.0	25.0	-	-	45.5
	Funding from Other Sources	-	-	-	-	-	-
	Total	2.5	18.0	25.0	-	-	45.5
	% of Total Budget	1%	3%	4%			1%
T.M. (Incl ATC)	Total from Municipal Budget	15.7	18.4	10.0	15.5	22.0	81.6
	Funding from Other Sources	-	-	-	-	-	-
	Total	15.7	18.4	10.0	15.5	22.0	81.6
	% of Total Budget	3%	3%	1%	2%	4%	3%
Roads	Total from Municipal Budget	186.6	164.5	300.7	330.0	227.0	1208.8
	Funding from Other Sources	205.0	230.0	150.0	47.0	20.0	652.0
	Total	391.6	394.5	450.7	377.0	247.0	1806.8
	% of Total Budget	87%	63%	61%	54%	47%	61%
Total All Sectors		451.9	628.6	739.5	707.8	523.8	3051.6

12.4 Long Term Context for Short Term Programme

The transport sectors of Road Safety and Traffic Management whilst driven by both short term and long term objectives tend to limit project identification to short term 3-5 year programmes reviewed and rolled forward on an annual basis.

The Freight Plan is in the early stages of preparation and can only identify short term projects at this time. As this planning evolves a long term framework will undoubtedly emerge which will provide the context for identifying additional projects in the short term programme.

The Roads Plan for the short term is the incremental development of a long term (Year 2020) roads plan for the eThekweni Municipality.

To a greater extent than the other sectors, public transport projects need to be introduced as part of a total system. To avoid abortive expenditure short term projects must form part of the progressive development of a long term public transport system solution for the area. For this to happen the Municipality requires a defined public transport strategy which responds to the imperatives in national policy and legislation and defines the role and positioning of public transport modes in the system.

Need for long term PT strategy

eThekweni developed such a strategy in their project on Fundamental Restructuring of Public Transport.

This strategy for a cost-effective, inter-modal system is documented in Section 5 of the ITP. Briefly stated, the strategy is structured around a rail focussed system along the North-South Coastal Corridor and an optimised road-based system in other parts of the Municipality.

Rail in N-S Corridor strategy

In the North-South Coastal Corridor defined in the Public Transport Plan, rail is planned as the backbone of a multi-modal integrated system of bus/taxi feeder services to a high standard rail, linehaul service.

Bus and taxi services in direct competition with rail will be removed and road-based public transport will play a support role in the North-South Corridor. In areas removed from this corridor, the bus system and service contracts will be rationalised and bus services optimally placed using appropriate size buses (from 35 seater Re-cap buses to full size buses).

Role of bus

The role of mini-bus taxi in the public transport strategy will be re-focussed to provide a service of quick turnaround routes where operators can improve levels of profitability. This will include feeder-distribution services in support of rail in the North-South Corridor as well as a range of services in other parts of the system.

Role of taxi

Ensuring effective delivery of such a system and service requires a fully legalised and regulated minibus taxi service, operating with reliable, safe equipment. The roll-out of the Re-cap programme commencing in 2005 will give impetus to this objective.

Legalisation & regulation

This broad strategy for public transport is supported by strategies which address the needs for non-motorised transport and special needs passengers ensuring a comprehensive needs-driven solution to public transport in eThekweni Municipality. Overall it creates the framework within which a cost-effective short term programme for public transport projects is identified.

Comprehensive PT strategy

Section of ITP	Targeted Area	KPI's
5. Public Transport (Cont.)	➤ Taxi-Recapitalisation progress	➤ % of minibus taxi fleet re-capitalised
	➤ Good delivery of public transport projects	➤ % of capital projects delivered within time and budget
	➤ Effective regulation and control of public transport vehicles	➤ % fully legal public transport operators
	Sustainable Public Transport	
	➤ Road-based public transport service regulation and legislation	➤ % of services operating with a fixed route permit
	➤ Land-use restructuring	➤ Development density along PT priority corridor(s)
	Safe & Secure Public Transport:	
	➤ Improved public transport security	➤ Reported incidents monthly per 10 000 passengers
	➤ Improved public transport safety	➤ Various KPI's from Road Safety Plan (as below)
	Black Empowerment in Public Transport:	
	➤ Extent of ownership and participation in public transport and related activities	➤ Number of contracts and value by type of contract
➤ Procurement of services	➤ % of budgets allocated to PDI firms	
7. Road Safety	General:	
	➤ All Accidents	➤ 10% reduction in the 3 year average
	➤ Pedestrian accidents 5-19 age group in the Road Safety Management Areas:	➤ 10% reduction in the incidence and severity of pedestrian accidents by 2010 ➤ 10% reduction in the pedestrian accident rate (acc/pop)
	➤ Pedestrian accidents in the Durban CBD	➤ 10% reduction in the incidence and severity of accidents by 2010
	➤ Minibus Taxi Accidents in the Road Safety Management Areas: · Umlazi · Chatsworth · Kwamashu · Phoenix · Durban CBD	➤ 15% reduction in accidents by 2010

Public transport KPI's

Road safety KPI's

Section of ITP	Targeted Area	KPI's
7. Road Safety (Cont.)	➤ Driver behaviour: - seatbelt usage - speeding - alcohol	➤ not yet available
	Engineering:	
	➤ Hazloc Programme	➤ 10 a year (budget dependent)
	➤ Road Safety Audits	➤ 10 audits a year
	➤ Before and after studies	➤ At least 1 every year dependant on resource constraints
	Education:	
	➤ Knowledge and Behavioural Changes	➤ Survey of behaviour (before-and-after), % change ➤ Test of knowledge
	➤ Teach road safety to all children	➤ No. of children exposed to road safety material ➤ Duration
	➤ Scholar patrols at all schools where needed	➤ 10 additional schools per year
	Enforcement:	
	Drivers respect speed limits: ➤ speed timing	➤ 1000 man hours per month
	➤ Minimum hours of enforcement	➤ 60% of DMPS non-dedicated time to traffic enforcement
	No driving over the legal blood alcohol limit : ➤ Deploy Booze Buses ➤ Breathalyzer testing	➤ 2 road blocks per week (must include pay weekend)
	Seatbelts and vehicle fitness: ➤ Check for seat belt compliance and vehicle fitness	➤ 2 road blocks per week
	Emergency Services:	
	Improvement of Response times ➤ Collect Response Time data	➤ Response times
	Exposure:	
	Raise awareness of road safety: ➤ Road safety awareness campaigns	➤ Measure behaviour changes in representative sample of target group size (before-and-after)
	Evaluation:	
	➤ Review Road Safety Plan	➤ Review after 3 years (Measure in terms of indicators detailed in this table)

Road safety KPI's

14. CONSULTATION, MARKETING, COMMUNICATION

These are recognised as fundamental components of a successful ITP.

Throughout the preparation of the draft of the ITP input was sourced extensively from local, provincial and national government officials as well as parastatals involved in different aspects of the Plan.

Representatives of the various relevant Municipal Departments as well as the NDOT and KZN-DOT formed part of an ITP working group that met regularly during the course of preparation of this draft document.

**ITP working
group**

The full consultation process commencing with the internal stakeholders represented on the Working Group will be followed by external stakeholder groups not involved in the preparation of the ITP.

This external groups will include:-

- Public Transport Liaison Forums (rail, bus and minibus taxi)
- Special Needs Groups
- eThekwini Transport Forum
- Ports Authority
- ACSA
- Chamber of Business

It should be noted that aspects of the ITP (namely; the Public Transport Plan, the Road Safety Plan and the Road Infrastructure Plan) have already been taken to stakeholders as part of the consultation process. These stakeholders included:-

- The eThekwini Transport Forum
- The Public Transport Liaison Structures
- Provincial and National Department's of Transport

On completion of the consultation processes Section 14 will be re-drafted to reflect the process followed and results obtained.

**Re-draft of
Section 14**

Any comments can be sent to Deputy Head: Strategic Transport Planning - Logan Moodley (Fax: 031-305 5871).