Tshwane CITP 2015-2020

Presentation to SA Road Federation AGM
27 October 2015

Presented by: Mike Krynauw
CONTENT

- CITP Overview
- Transport Infrastructure
- Travel Demand Management
- Freight & Logistics Strategy
- NMT Strategy
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CITP OVERVIEW
CITP OVERVIEW

• The CITP for Tshwane for the period 2015 to 2020 addresses all of the chapters specified by the Department of Transport (DoT) CITP Minimum Requirements.

• The CITP is a statutory plan required by the National Land Transport Act No. 5 of 2009 (NLTA) and the Gauteng Transport Framework Revision Act.

• The CITP forms an integral component of the Integrated Development Plan (IDP).

• The CITP formulates Tshwane’s vision, mission, policy and objectives for transport, consistent with the NLTA.

• The scope of the CITP has gone beyond what is required by the DoT in its Minimum Requirements, including aspects such as sustainable transport, aviation, road and public transport safety and security, intelligent transport systems, and micro-simulation of traffic in congested areas.
Minimum Contents of a CITP

1. Introduction
2. Transport Vision & Objectives
3. Transport Register
   - CPTR
   - Traffic
   - Roads
4. Spatial Development Framework
5. Transport Needs Assessment
6. Public Transport Operational Strategy
   - Network operational plan
   - Reg. Rail Plan
   - Operating License Strategy
7. Transport Infrastructure Strategy
   - Roads
   - Public Transport infrastructure
8. Travel Demand Management
9. Freight Logistics Strategy
10. Other Transport Related Strategies
11. Funding Strategies of Proposals and Programmes
12. Public Participation
# CITP Document Contents

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<td>Implementation, Monitoring and Evaluation</td>
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</table>
Tshwane’s Transport Vision and Mission

• The Transport Vision:

“A transport system developed to support a sustainable city”

• The Transport Mission:

“To develop a transport system that positions the Capital City to meet the economic and social needs of its citizens”.
City’s Transport Goals and Objectives

1. Plan and develop a transport system that improves accessibility and mobility whilst enhancing social inclusion.

2. Provide a fully integrated public transport system.

3. Develop a transport system that drives economic development.

4. Improve the safety and security of the transport system.

5. Develop a transport system that reflects the image of the city.

6. Develop an efficient, effective, development orientated public transport system and integrates land use and public transport plans.

7. Develop a transport system that is environmentally sustainable.
Imperative to shift to more Sustainable Transport, but what does this mean?

- "Allows basic access and development needs of individuals, companies and societies to be met safely and in a manner consistent with human and ecosystem health, and promises equity within and between successive generations

- Is affordable, operate fairly and efficiently, offers choice of transport mode, and supports a competitive economy, as well as balanced regional development

- Limits emissions and waste within the planet’s ability to absorb them, uses renewable resources at or below their rates of generation and uses non-renewable resources at or below the rates of development of renewable substitutes while minimizing the impact on land and the generation of noise"

Source: CST, OECD, EUMT
**AVOID**

- unnecessary travel & reduce trip distances - integrate land-use & transport planning, mixed-use development, support Information & Communication Technologies goals

**SHIFT**

- towards more sustainable modes - non-motorised transport, improve public transport services, Transportation Demand Management, inter-city passenger & goods transport goals

**IMPROVE**

- transport practices & technologies - more sustainable transport fuels & technology; standards for fuel quality, efficiency & emissions; periodic vehicle inspection and maintenance; adopt Intelligent Transport Systems; and improve freight transport efficiency goals

Source: Bangkok 2010 Declaration
## Business as Usual vs. Sustainable Transport

<table>
<thead>
<tr>
<th>Business as Usual (BAU)</th>
<th>Sustainable Transport (ST)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High mobility &amp; quantity</td>
<td>Accessibility &amp; quality</td>
</tr>
<tr>
<td>Emphasizes one mode</td>
<td>Multi-modal</td>
</tr>
<tr>
<td>Lack of good connections between modes</td>
<td>Inter-modality</td>
</tr>
<tr>
<td>Accommodates &amp; accepts trends</td>
<td>Interrupt &amp; reverse harmful trends</td>
</tr>
<tr>
<td>Forecasted demand (predict &amp; provide)</td>
<td>Work backward from preferred vision to planning &amp; provision</td>
</tr>
<tr>
<td>Expands roads responding to travel demand</td>
<td>Manages transport or mobility demand</td>
</tr>
<tr>
<td>Ignores social &amp; environmental costs</td>
<td>Incorporates “full” costs</td>
</tr>
<tr>
<td>“Silo” planning</td>
<td>Integrated planning</td>
</tr>
</tbody>
</table>

Source: Preston L. Schiller
Spatial Development Concept – Vision 2055

Source: COT Metropolitan Spatial Development Framework, 2012
Legend:
- Capital Core
- Urban Core / NDPG Programme
- Emerging Node
- Metropolitan Node
- Gautrain

Regions:
1. Hammanskraal / Temba
2. Mabopane / Soshanguve
3. Soshanguve South / Kopanong
4. Pretoria North / Rainbow Junction
5. Akasia CBD
6. Kolonnade
7. Ga-Rankuwa
8. Mamelodi
9. Atteridgeville / Saulsville
10. Inner City
11. Hatfield
12. Brooklyn
13. Menlyn
14. Hazeldene
15. Refilwe
16. Ekangala
17. Zithobeni
18. Bronkhorstspruit
19. Woodlands
20. Wingate Park
21. Irene
22. Centurion CBD
23. Monavoni
24. Olievenhoutbosch

Source: COT Metropolitan Spatial Development Framework, 2012
TRANSPORT INFRASTRUCTURE
Transport Infrastructure

Transport Infrastructure Strategy must:

• Deal with all types of infrastructure
• Include proposals for new facilities and improvement of public transport facilities and roads
• Give priority to public transport

Scope of Work

• The primary focus is to develop a Transport Infrastructure Implementation plan, providing priority projects for roads and public transport infrastructure, and generally giving priority to moving more people than vehicles
## Status Quo

Road Lengths per Functional Classification are:

<table>
<thead>
<tr>
<th>Functional Classification</th>
<th>Unpaved Length (km)</th>
<th>Paved Length (km)</th>
<th>Total Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Routes</td>
<td>0</td>
<td>722.9</td>
<td>722.9</td>
</tr>
<tr>
<td>Secondary Routes</td>
<td>56.3</td>
<td>610.9</td>
<td>667.2</td>
</tr>
<tr>
<td>Main Tertiary Routes</td>
<td>119.7</td>
<td>1189.7</td>
<td>1309.4</td>
</tr>
<tr>
<td>Tertiary Routes</td>
<td>2860.4</td>
<td>4107.7</td>
<td>6968.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3036.4</strong></td>
<td><strong>6631.2</strong></td>
<td><strong>9667.6</strong></td>
</tr>
</tbody>
</table>

The amount of funding required to eradicate the most critical backlog in roads is **R17.16bn to pave 2 860km of gravel roads**
Prioritization

Criteria used to rate the key projects identified from the various strategies were:

• Support to the Spatial Priority Areas of the CoT, including the IRPT Corridors
• Serve the needs of the CoT community - Number of people who will benefit from the project
• Minimise transport user costs: Extent to which transport time and operating costs will be reduced
• Minimise environmental impact
• Meet the CoT needs in most affordable way: Capital cost
Implementation Plan

102 Top priority projects (planning and capital) from the following strategies were identified:

- Public Transport
- Roads Infrastructure
- Freight & Logistics
- Non Motorised Transport
- Parking
- Intelligent Transport Systems
- Transport Demand Management
- Road Safety
5 Year Capital Projects
# Roads Infrastructure

<table>
<thead>
<tr>
<th>Rank</th>
<th>Project Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lavender Road (R101) / M1 upgrade</td>
<td>Upgrade of the intersection and 2nd bridge over the Apies River</td>
</tr>
<tr>
<td>2</td>
<td>Derdepoort Road (K139)</td>
<td>1st Carriageway between East Lynne and Eersterust (including bridge across the Moreleta Spruit)</td>
</tr>
<tr>
<td>3</td>
<td>Rooihuiskraal Road (M37) Interchange Phase 1</td>
<td>N14/ Rooihuiskraal Road Interchange Phase 1 - Northern access to N14</td>
</tr>
<tr>
<td>4</td>
<td>Solomon Mahlangu Drive (M33)</td>
<td>2nd carriageway between R21 and Waterkloof High School (including 2nd bridge across the N1)</td>
</tr>
<tr>
<td>5</td>
<td>Lynnwood Road (M6)</td>
<td>New dual carriageway between The Grove Mall and Solomon Mahlangu Drive</td>
</tr>
<tr>
<td>6</td>
<td>Garsfontein Road (M30)</td>
<td>New dual carriageway between Anton van Wouw Street and Solomon Mahlangu Drive, incl adding fourth lane on K69 between Jacqueline and Garsfontein Rd</td>
</tr>
<tr>
<td>7</td>
<td>Hendrik Verwoerd (M25)</td>
<td>2nd carriageway of Hendrik Verwoerd from Old Jhb Road across the N14 to John Vorster Drive (including bridge)</td>
</tr>
<tr>
<td>8</td>
<td>Atterbury Road (M11)</td>
<td>Doubling Atterbury Road from January Masilela Road (old Genl L Botha) to Solomon Mahlangu Drive (M10)</td>
</tr>
<tr>
<td>9</td>
<td>Pretoria Road (R104)</td>
<td>Doubling Pretoria Road between Silverton and Hatfield replacing the old bridge single carriageway across the railway line</td>
</tr>
<tr>
<td>10</td>
<td>Stormvoël Road (M8)</td>
<td>2nd Carriageway between Eersterust and Mamelodi</td>
</tr>
</tbody>
</table>
TRAVEL DEMAND MANAGEMENT
1. No Formal TDM projects have been initiated in Tshwane to date

2. However, NMT is implemented, Public Transport is improved – which all contribute to travel demand management

3. A large range of alternative TDM measures were investigated – looked for one that is implementable with limited budget implications that will have an impact

4. Proposal to focus on the successful implementation of one TDM project in the next 5 years

5. Proposed: **Large Employer Trip Reduction Programme**
Travel Demand Management – Possible Options

1. Improve Mobility Options
2. Public Transport
3. NMT
4. Rideshare
5. Guaranteed Ride Home
6. Telework
7. Flexitime
8. HOV Lanes
9. Economic Measures:
   1. Congestion Pricing
   2. Commercial Financial Incentives
   3. Taxes
10. Landuse Management
11. Large Employer Trip Reduction
Travel Demand Management - Project

1. Implement **Large Employer Trip Reduction Programme**

2. Employ service provider to initiate and drive the project

3. Survey large employers, develop measures they can do to reduce the private travel to their offices / place of work

4. Change bylaws to make it compulsory for large employers in the City

5. Do annual monitoring of these employers to measure improvement

6. Do it in a manner which is Environmentally Friendly and promote competition between large employers

7. Estimated annual cost of operation is R1 million
Key Freight Issues

- In adequate/identified freight roads
- No control of freight loading points
  - i.e. Rosslyn
- The non existence of EIA process to control the provision of loadings sites
- Road design does not make provision for freight demand
- Inadequate provision of weighbridges and the operating thereof
- Lack of Resting / Over Night Areas
Key Freight Issues (2)

• No central database to capture overload information or control mechanisms
• Limited control of the issuing of permits: Abnormal loads/ hazardous materials (Provincial / Metropolitan)
• Institutional / Intergovernmental processes
• Development of major Freight Hub at Pyramid South (to service Northern Gauteng) at part of SIP 2
Pyramid Freight Hub: Proposed Facilities

Source: Adapted from Gautrans road network maps
Road Network – Pyramid Freight Hub
## Freight Strategies

<table>
<thead>
<tr>
<th>Projects</th>
<th>X &lt; 2020</th>
<th>2020 &lt; x &lt; 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a Freight Transport Working Group</td>
<td>Establish freight transport working group and/or department</td>
<td></td>
</tr>
<tr>
<td>Develop a Freight Transport Master Plan</td>
<td>Appoint Technical team to develop a freight transport master plan and/or management plan</td>
<td></td>
</tr>
<tr>
<td>Establish weighbridges</td>
<td>- Identify sites</td>
<td>- Build a facility at R21</td>
</tr>
<tr>
<td></td>
<td>- Develop and build facility on N14 and N4 west</td>
<td>- Develop information systems</td>
</tr>
<tr>
<td></td>
<td>- Provide adequate signage to guide heavy vehicles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Improve law enforcement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Develop an information system to manage, control and store data.</td>
<td></td>
</tr>
<tr>
<td>Establish truck stops/ fatigue management centres at the weighbridges</td>
<td>Identify and develop truck stop facilities with supporting infrastructure for value added service:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fatigue managements systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Medical facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Fuel and maintenance facilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Overnight facilities</td>
<td></td>
</tr>
</tbody>
</table>
## Freight Strategies – cont.

### Establish Abnormal routes
- Provide adequate signage
- Improve law enforcement
- Establish abnormal routes with SANRAL
- Publish limitations of existing routes on permits
- Issuing of permits by Tshwane electronically and/or through a web-system
- Align with SALGA strategy and initiatives
- Develop truck stop and overnight facilities
- Develop an intelligent transport systems (ITS) or integrate with planned ITS systems

### Establish Technical workgroup for Hazardous goods
- Establish technical working group
- Provide adequate signage
- Improve law enforcement
- Develop demarcated areas for hazardous goods at existing truck stop or parking facilities
- EIA process

### Establish Pyramid development zone
- Intermodal facilities
- Automotive facilities
- Truck stop facilities
- Warehousing
- Gas facility supplying gas to surrounding developments and Tshwane

- Relocation of Fuel tank farm at Waltloo to Pyramid
- Develop a gas electricity power facility to supply green electricity to Tshwane
# Freight Transport Infrastructure

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<tr>
<th>Rank</th>
<th>Project Name</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>K99 Link from Sefako Makgato Drive southwards to Frates Avenue</td>
<td>K99 Link Sefako Makgato Drive southwards across / through the Magaliesberg mountain to link to the South</td>
</tr>
<tr>
<td>2</td>
<td>K97 Pyramid to N4 (R101)</td>
<td>Upgrading existing road to 4 lanes (access to Pyramid Freight Hub)</td>
</tr>
<tr>
<td>3</td>
<td>Establish Freight Inter-modal Facility</td>
<td>Pyramid Freight Hub in line with SIP 2</td>
</tr>
<tr>
<td>4</td>
<td>K14 (from M1 to K97) River Crossing</td>
<td>New Sefako Makgato / Rachel de Beer single carriageway across the Apies River at Rainbow Junction</td>
</tr>
<tr>
<td>5</td>
<td>K6 (new link) (from PWV9 to N1)</td>
<td>New 4 lane road to link job opportunities to hub, and provide connectivity between Pyramid and Rosslyn</td>
</tr>
<tr>
<td>6</td>
<td>K99 Link from Sefako Makgato (old Zambezi) Drive North to Pyramid Freight Hub to new K6</td>
<td>K99: N4 to Pyramid Freight Hub from Dr Swanepoel interchange (N4)</td>
</tr>
<tr>
<td>7</td>
<td>PWV2 from N4 west/N1 to Moloto road</td>
<td>New dual carriageway (2 km)</td>
</tr>
<tr>
<td>8</td>
<td>Tshwane Western Bypass (PWV9) Phase 1 - R80 to R55 Zwartkops</td>
<td>New Western Bypass dual carriageway with Tunnel through the Witwaters Berg</td>
</tr>
<tr>
<td>9</td>
<td>PWV2 from Moloto road to PWV 17</td>
<td>New dual carriageway (6 km)</td>
</tr>
<tr>
<td>10</td>
<td>Tshwane Western Bypass (PWV9) Phase 2 - from Zwartkops to N14</td>
<td>New Western Bypass dual carriageway</td>
</tr>
</tbody>
</table>
NON-MOTORIZED TRANSPORT (NMT)
NMT - CREATING LIVEABLE STREETS

• Balance the needs of all users - by providing safe and convenient travel and access for cyclists, public transport users and operators, heavy vehicle and car drivers, and people of all ages and abilities.

• Contribute to liveable communities by providing public open space that integrates amenities including street trees and landscaping, street and sidewalk lighting, public transport facilities, street furniture, public art work.

• Provide infrastructural improvements that attract private investment and encourage pedestrian activity.

• Promote active living by providing safe and attractive conditions for walking and cycling.
CREATING LIVEABLE STREETS

**NMT Facilities along Kerb Arterials (80km/h and above)**

**Principles:**
- Partial separation
- V = optional

**Positive Aspects:**
- Safety for all modes of transport is reasonably assured.

**Negative Aspects:**
- Road reserve needs to be large enough to accommodate all modes.

**Dimensions:**
- L = varies Min: 3,000 mm
- f = 1,000 mm (COTO)
- c = 800 mm (Min: 1,500 mm)
- v = 300 mm
- w = 1,600 mm (Min: 1,500 mm)
- d1 = 2,500 mm (2,600 mm with mirrors)
- d2 = 750 mm (900 mm with maneuvering)
- d3 = 700 mm (900 mm with maneuvering)

**NMT Facilities at Controlled Intersections**

**Principles (continued):**
- Tactile surface must be laid in line with the angle of crossing.
- If 1:12 gradient is not possible, an alternative route should be identified, or the full width of the footway should be lowered and 1:12 ramps be installed along the footway.
- Care must be given during the implementation stages, and the manner and methodology in which kerb ramps are constructed on site.
- Linear tactile pavers are required if the sidewalk is too wide for people using a walking cane to reach the kerb.

**Dimensions:**
- v = 2,250 mm (combination of landscaping and on-street parking)
- w = 2,000 mm (preferably more)
- l = 12,000 mm (four lane roadway)

**Principles:**
- Slow moving traffic
- Design speed is 40 kph.
- Motorised and NMT (cycling) separated by cycle lane separation measures
- Pedestrians, cycling children, peoples with wheelchairs or prams are catered for on the walkway.

**Positive Aspects:**
- Limited road space required.
- Low speeds increase safety.

**Negative Aspects:**
- If speeds exceed the design speeds, unsafe environments might be created.
NMT - ACTION PLAN

• Prioritization Criteria of Network
  • Road Classes on which NMT infrastructure is found
  • Road Safety Aspects
  • NMT Demand for Infrastructure
  • NMT Proximity to Schools / Universities
  • NMT Proximity to Public Transport
• NMT Priority Streets for Implementation
# NMT - PRIORITY IMPLEMENTATION STREETS

<table>
<thead>
<tr>
<th>Priority Project Per Region</th>
<th>Estimated Cost</th>
<th>Capital Cost</th>
<th>Description</th>
<th>Rank</th>
<th>Project Holder</th>
<th>Stage of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region 1 : Commissioner Street (M39)</strong></td>
<td>R 19 800 000.00</td>
<td></td>
<td>Along Commissioner street in-between Buitekant Road (M20) and the R80. Develop a &quot;liveable streets concept&quot; complete with pedestrian sidewalks; public transport laybys and cycle lanes. Relook at intersection crossings along the route to make it safe and accessible.</td>
<td>3</td>
<td>CoT</td>
<td>Regional NMT linkage to rail stations and other public transport corridors</td>
</tr>
<tr>
<td><strong>Region 1 : NMT around the IRPTN network</strong></td>
<td>R 15 840 000.00</td>
<td></td>
<td>NMT supporting the M20 route of the IRPTN network, leading towards Akasia.</td>
<td>1</td>
<td>CoT</td>
<td>Under Construction</td>
</tr>
<tr>
<td><strong>Region 1 : Bicycle lock up facilities at Kopanong and Mabopane Station</strong></td>
<td>R 50 000.00</td>
<td></td>
<td>Bicycle lock up facilities at Kopanong and Mabopane Rail Station</td>
<td>2</td>
<td>CoT / PRASA</td>
<td></td>
</tr>
<tr>
<td><strong>Region 2 : NMT Linkage between Hammanskraal and Temba, supporting the Jubilee Mall; Jubilee Hospital and Temba Sports Complex</strong></td>
<td>R 19 800 000.00</td>
<td></td>
<td>Construction of pedestrian and cyclist paths, public transport laybys that will serve the Hammanskraal Activity Node extending from the D2757/K97 road towards Jubilee Mall, then along the Temba Activity spine past the Jubilee Hospital, up to the Temba Sports Complex.</td>
<td>1</td>
<td>CoT / DOT Shova Kalula</td>
<td>Feasibility Undertaken</td>
</tr>
<tr>
<td><strong>Region 3 : CBD Pedestrianisation and Bicycle lane pilot projects</strong></td>
<td>R 89 298 000.00</td>
<td></td>
<td>Park street NMT; Operation Reclaim; BRT pedestrian precinct projects underway.</td>
<td>1</td>
<td>CoT / DOT IRPTN</td>
<td>Feasibility Undertaken</td>
</tr>
<tr>
<td><strong>Region 3 : Hatfield pedestrianisation projects</strong></td>
<td>R 19 800 000.00</td>
<td></td>
<td>Burnett; Hilda and Festival Street pedestrianisation projects</td>
<td>2</td>
<td>CoT</td>
<td></td>
</tr>
<tr>
<td><strong>Region 3 : Lynnwood pilot cycle lanes</strong></td>
<td>R 10 890 000.00</td>
<td></td>
<td>Justice Mahommed pilot cycle lane project</td>
<td>4</td>
<td>CoT</td>
<td></td>
</tr>
<tr>
<td><strong>Region 3 : Lynnwood BRT NMT</strong></td>
<td>R 36 234 000.00</td>
<td></td>
<td>Lynnwood BRT NMT</td>
<td>3</td>
<td>CoT / DOT IRPTN</td>
<td>Under Construction</td>
</tr>
<tr>
<td><strong>Region 4 : NMT connections linked to PRASA / Gautrain stations in Centurion</strong></td>
<td>R 9 900 000.00</td>
<td></td>
<td>Pedestrian link across Centurion lake from shopping mall to Gautrain station</td>
<td>1</td>
<td>CoT</td>
<td></td>
</tr>
<tr>
<td><strong>Region 5 &amp; 7 : Cullinan - Refilwe activity street</strong></td>
<td>R 15 840 000.00</td>
<td></td>
<td>Long distance cycling and pedestrian facilities from Refilwe to Cullinan</td>
<td>1</td>
<td>CoT</td>
<td></td>
</tr>
<tr>
<td><strong>Region 6 : N4/Solomon Atterbury NMT linkage Mahlangu - Atterbury NMT linkage</strong></td>
<td>R 25 740 000.00</td>
<td></td>
<td>NMT as part of the planned BRT project</td>
<td>1</td>
<td>CoT / DOT IRPTN</td>
<td>Feasibility Undertaken</td>
</tr>
<tr>
<td><strong>Region 6 : NMT as part of the Tsamaya Avenue IRPTN</strong></td>
<td>R 37 818 000.00</td>
<td></td>
<td>NMT as part of the planned BRT project</td>
<td>2</td>
<td>CoT / DOT IRPTN</td>
<td>Under Construction</td>
</tr>
</tbody>
</table>
ROAD SAFETY STRATEGY
Road Safety – Major issues

• Several existing actions underway related to road safety – safer city, traffic calming policy, road safety master plans

• Several role players involved - Traffic engineering and operations, TMPD, ESD, Gauteng Dept. Community Safety, SANRAL, SAPS, RTMC

• Coordination of actions between role players not happening – established a working group to coordinate

• Crash data is poor – estimate is around 245 to 280 fatalities per year, of which approximately 50 are pedestrians, and 13500 persons injured per year in Tshwane – Possible national demonstration project with new handheld devices
Road Safety – Crash Statistics

Number of casualties and fatalities in Tshwane

![Graph showing the number of casualties and fatalities from 2008 to 2012. The graph indicates a decrease in both slight and serious casualties, as well as fatalities, over the years.]
1. **Road Safety Education in Schools.** Agreement reached between Tshwane, Gauteng Province and SANRAL to share and co-ordinate road safety education. High profile flagship project.

2. **Coordinate crash data between departments** – TMPD, Emergency Services – need to develop new common database

3. **Implement Road Safety Audits** on Design and road rehabilitation projects
Road Safety – Focus Areas

4. Implement **Road Incident Management System** (according to new legislation)

5. Established **Road Safety Coordination Group**; that meets Quarterly and tracks progress

6. Implement **Cameras and other technology** to improve law enforcement
# Road Safety – Projects and Budget Estimates

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Description of Budget Item</th>
<th>Estimated Annual Budget ( R )</th>
</tr>
</thead>
</table>
| A   | Coordination of stakeholders, efficient use of resources, data collection and monitoring:  
• Active workgroup to ensure communication and collaboration between role players  
• Road Safety awareness programme  
• Central database system  
• Monitoring and evaluation | | R 2 500 000 |
| B   | Design standards and road safety audits:  
• Engineering solutions for hazardous locations  
• Review engineering design standards and practices used in Tshwane  
• Implement Road Safety audits on Engineering projects  
• Use of technology and Intelligent Transport Systems (ITS) to improve road safety | | R 21 000 000 |
| C   | Law Enforcement Actions - Allow additional budget for TMPD for additional technology to assist with road safety related law enforcement such as speeding cameras | | R 1 000 000 |
| D   | Coordinated, effective and sustainable road safety education:  
• Coordinated, sustainable and frequent road safety education to all learners in Tshwane  
• Introduce road safety education and training for target groups | | R 540 000 |
| E   | Implement RIMS - coordinating existing efforts of different departments to ensure monthly meetings (appoint a consultant to coordinate efforts) | | R 500 000 |
| TOTAL | | | R 25 540 000 |