

CEO6/2/3/1

**CONSULTING SERVICES FOR
DEVELOPING A PUBLIC TRANSPORT
STRATEGY FOR MBABANE**

for

MUNICIPAL COUNCIL OF MBABANE

EXECUTIVE SUMMARY

30 November 2016

PREPARED BY

ROYAL HASKONINGDHV (PTY) LTD

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	2
1.1	INTRODUCTION	2
1.2	VISION, GOALS & OBJECTIVES	2
1.3	STATUS QUO ASSESSMENT	2
1.4	PUBLIC TRANSPORT MANAGEMENT STRATEGY.....	6
1.5	PROJECT BUDGET PROGRAMME AND FUNDING STRATEGY	14
1.6	STAKEHOLDER CONSULTATION AND CAPACITY BUILDING.....	14
1.7	CONCLUSIONS	15

1 EXECUTIVE SUMMARY

1.1 Introduction

Public Transport in and around Mbabane is facing a number of challenges, including traffic congestion in the CBD, inadequate public transport services, overcrowded central public transport facility and problems to manage the services. The Municipal Council of Mbabane subsequently identified the need for the development and implementation of a Public Transport Management Strategy. The main objective is to develop a practical plan with clear actions and identified projects, linked to budgets, which can be implemented in order to reduce traffic congestion in Mbabane and increasing public transport patronage.

The document consists of and addresses the following components:

- Chapter 1: Introduction;
- Chapter 2: Vision, Goals and Objectives;
- Chapter 3: Status Quo Assessment;
- Chapter 4: Public Transport Management Strategy;
- Chapter 5: Project Identification & Budgeting Programme and Funding Strategy;
- Chapter 6: Stakeholder Consultation and Capacity Building;
- Chapter 7: Conclusions.

1.2 Vision, Goals & Objectives

Mbabane's vision is to be the preferred destination in Southern Africa, offering quality of life.

With core values of Communication, Respect, Unity, Customer focus and Reliability, the City of Mbabane, in its mission statement, is striving to deliver high quality services through:

- Preserving, protecting and enhancing the quality of life;
- Harnessing growth, development, good governance and responsive quality services for all Stakeholders;
- Sustainable development based on modern technological, environmental, economic and social principles.

The Technical Services Department's main objectives with respect to public transport are, amongst others, to:

- a. Provide, upgrade, maintain and rehabilitate the City's transport infrastructure to an acceptable operational level;
- b. Ensure that sustainable, affordable and safe public transport services are rendered to the City's commuters.

1.3 Status Quo Assessment

The Study Area comprises of the entire City of Mbabane, inclusive of all outlying areas within the boundaries of the City. The focus with respect to services and infrastructure was nevertheless on the city centre or CBD. The topography of the study area poses a unique challenge which needs to be kept in mind when deciding on any of the potential solutions and future recommendations.

The City's latest Land-Use map shows land-use zoned for Commercial, Residential, Government and Open Spaces. New large commercial developments, presumably earmarked for offices, are being developed just north-west of the CBD and this area can rightfully be seen as a new growth point for businesses, not wishing to settle directly inside the current busy CBD. It is safe to assume that this growth point will, with time, become a generator of economic activity and with that, also an attraction of traffic and commuters.

Mbabane's population has been estimated at 61,940 and the number of households in Mbabane has been estimated at 19,490; 55% of households in the city own automobiles.

Mbabane houses a number of Government departments and therefore the City's main revenue stream is drawn from Government and thus Government employees. The City has two sites for light industries, is home to the Waterford-KaMhlaba United World College of Southern Africa, the University of Swaziland and the British High Commission. According to the City Household Survey (August 2015), 38% of the City's population are employed, while 40% of the population are dependents (minors/students).

Public transport in Mbabane is characterised by a poorly regulated system, operated by private sector operators, without any financial assistance in the form of subsidy from Government.

There are three main public transport operator groupings or associations, operating in and around Mbabane. These are Hhohho Region, Swaziland Local Transport Association (SLTA) and Swaziland Interstate Transport Association (SITA). Hhohho region comprises of Mbabane Kombi, Mini- and Midi-bus Transport Association (MKMMTA), operating local or short-distance services, while Hhohho Cross-Border Transport Association (HCBTA) renders long-distance cross-border services. Swaziland Local Transport Association (SLTA) effectively shares all routes with MKMMTA. Swaziland Interstate Transport Association (SITA) operates long distance cross-border transport services.

The local or short distance commuter services are mainly rendered on weekdays during the AM-peak period between 6h30 and 8h30, as well as during the PM-peak period between 16h30 and 19h30. The 2 operators rendering local services are Mbabane Kombi, Mini- and Midi-bus Transport Association (MKMMTA) and Swaziland Local Transport Association (SLTA)

Cross-border services are being operated between Swaziland and South Africa and Mozambique respectively and are rendered on a roster system. The operators generally remain on the main roads and freeways, so as to minimize trip duration and travelling times. As far as can be established, cross-border fares are not regulated.

The existing public transport operational situation seems to be adequately covering the geographical extent of the City and therewith satisfy the existing passenger demand. There are however signs of over-trading where the public transport supply exceeds the demand.

A number of surveys have been conducted in and around the Mbabane CBD, to determine the demand and supply of public transport services. In order to determine the amount of congestion on the main arterial roads, leading to and from the Mbabane CBD, Classified Cordon or Link Counts were undertaken, counting traffic entering and leaving the City along all main routes. *Secondly*, for the determination of intersection capacity utilization, Intersection Counts have been done whereby all movements from all approach directions towards an intersection have been counted. In the *third* instance, Rank Counts have been undertaken with the purpose of determining the need for ranking space by counting the vehicles, occupying the rank at regular intervals throughout the day.

The results of link counts executed show that the majority of vehicles entering the Mbabane CBD are sedan vehicles, of which the majority are private vehicles. In total, 31,645 passengers enter the CBD by public transport per day, while 31,075 leave the CBD per day. The modal split between bus and kombi is 9% and 91% respectively. An assessment of the Bus Rank proved that both the holding and the loading functions occur in the same facility, causing extreme congestion in the rank and thereby exceeding the capacity of the facility.

Permits are issued by the Road Transportation Board, which reports to national government, after obtaining recommendations from Mbabane City Council, and such permits are valid for one year. There are currently 814 permits issued in combination for Non-Scheduled Kombis, Taxi Cabs, School Bus, Staff Bus, Freight (Goods) Transport, Tourist Permits and Scheduled Bus. All permits are renewable every 12 months. If the Road Transportation Board (RTB) has refused an application, the applicant has the right to appeal to the Road Transportation Appeal Board (RTAB). If the RTAB also refuses, the applicant can approach the competent Court to ascertain if the RTAB has followed the correct procedure.

Irrespective of the fact that permits are valid for 12 months, the Certificate of Fitness (CoF) is only valid for 6 months and an operator can only apply for a CoF, if he/she receives a document from the RTB, stating that the permit is still valid. As a pre-requisite for obtaining a permit, all operators must belong to an association.

The numbers of long distance trips vary between 2 and 3 per day, while on shorter distances, 4 to 5 vehicle trips are made per day. Only the cross-border services operate on a timetable, indicating the departure times of the trips from the Mbabane Bus Rank.

Public transport fares are determined by Government in terms of section 36 of the Road Transportation Act 5 of 2007. The Minister of Works and Public Transport issues Regulations for maximum bus and taxi fares which come into force on the date of publication in an Extraordinary Government Gazette. The legal notice is divided into two schedules, being *Schedule A* for Maximum Bus Fares and *Schedule B* for Maximum Taxi Fares. Such legal notice amends and replaces the previous year's regulation. The current basis for calculation of maximum bus fares for the conveyance of passengers by means of bus and kombi is a charge of E6.00 for any passenger journey up to 8 kilometres and an additional charge of E0.60 per kilometre for any journey in excess of 8 kilometres. The current basis for calculation of maximum taxi fares for the conveyance of passengers by means of sedan taxi is a charge of E42.00 for any passenger journey up to 8 kilometres and an additional charge of E6.00 per kilometre for any journey in excess of 8 kilometres.

Fares are however not increased annually (every year) by the Minister and as a result, operator's operational costs might exceed the revenue earned. In addition, while fare setting benefits passengers, it interferes with free market forces and can prejudice operators who are unable to cover their costs and make a reasonable profit.

The main bus rank in the centre of Mbabane's CBD, is divided into various demarcated areas of operation of the different service offerings and different public transport modes. Very little destination signage is displayed in the rank, providing commuters with basic passenger information. Passengers thus have to rely on rank marshals for traveller's or operational information. Rank marshals therefore acts as "marketers" to "sell" commuter trips and attract passengers to a particular vehicle or group of operators.

It would seem as if the rank does not have sufficient capacity to accommodate all of the existing operators' vehicles. The bus rank, despite being the City's property, is being maintained and cleaned by the surrounding private businesses. The cleaning of the bus rank is mainly done at night, so as not to interfere with day-time operations.

Apart from the main bus rank where large buses, kombis and sedan taxis are ranking, there are also a number of other areas where metered taxis and goods carrying LDVs for hire are parked during the day.

The main road network in and around Mbabane is largely used by public transport operators whilst rendering their services as these routes represent the shortest direct routes in terms of both kilometre distances and travel times.

The legal framework for the Project considered the following policies and legislation:

- The Constitution
- The Urban Government Act 8 of 1969 (UGA)
- The Road Transportation Act 5 of 2007 (RTA)
- The Road Traffic Act 6 of 2007
- The Central Transport Organisation Act 2011
- The Public Enterprises (Control and Monitoring) Act 8 of 1989
- Environment Management Act 5 of 2002 (EMA)
- The Procurement Act, 2011
- The New Land Transport Bill
- Municipal By-Laws

No institutional provision is made in the City to deal directly, on a dedicated basis, with public transport. The City's organisational structure therefore needs to be reviewed with the purpose of making provision for, amongst others, disciplines such as public transport regulation and enforcement, permit administration and operations and infrastructure maintenance and the general maintenance and improvement thereof.

Observations of the congestion revealed that the traffic congestion in the CBD is a direct result of the on-street parking, lack of parking enforcement, lack of sufficient parking space and lack of pedestrian facilities and pedestrian volumes.

It would seem that the majority of the congestion experienced in the CBD is directly attributed to the daily entrance of private sedan vehicles into the CBD. This phenomenon results in a very high demand for on-street parking in the city centre, of which there is a serious shortage of parking spaces. This, together with the lack of parking law enforcement can therefore be seen as one of the largest contributing factors towards Mbabane's serious traffic congestion. On-street parking increases the road friction due to drivers searching for available parking and the parking manoeuvre. Drivers in Mbabane favour reverse parking which increases the time to execute the parking manoeuvre. This might be as a result of short parking bays. The increase in friction decreases the street capacity which results in fewer vehicles passing through per time interval. The 45° parking unfortunately does not decrease the road friction and thus does not increase the capacity.

Due to the lack of sufficient parking space and the absence of loading bays, double parking occurs on a regular basis, resulting in totally blocking the traffic flow or choking the traffic flow severely. Both outcomes reduce the street capacity even further and to such an extent that the flow looks like a grid lock.

The CBD occupies a relatively small area which implies short walking distances to access destinations within the CBD from a specific point of departure. This is beneficial for non-motorized transport (walking). The topography of the CBD increases the effort to walk especially along certain streets, but it does not seem to discourage people from walking to their destinations although people still prefer to park at their destination. The pedestrian

density is to a great extent determined by the type of land use. Retail and public transport facilities attract high pedestrian volumes, while offices attract far less pedestrians, except buildings occupied by public services. Light industrial land uses attract few pedestrians. Mahlokohla Street is a major pedestrian route linking the schools to the rank and also the residential areas to the east of the CBD with the CBD.

Pedestrian facilities in the CBD mainly consist of sidewalks which are in the majority of instances paved and provided in the major pedestrian areas. Reduction of the sidewalk widths results in pedestrians using the street surface, thus increasing the conflict between vehicles and pedestrians. This is dangerous for pedestrians who are very vulnerable when compared to vehicles.

It was also noted that on sidewalks where there are trees, pedestrians were more inclined to interact with one another thus indicating that sidewalks with trees are considered by pedestrians as more pleasant and relaxing. More street tree planting should thus be provided.

Few heavy vehicles were observed in the CBD. The only heavy vehicles observed were delivery vehicles and construction vehicles. No heavy freight vehicles were observed. This is attributed to the location of industrial areas relative to the CBD and the direct access of industrial areas from the freeway.

Impressions are that it is safe to drive and walk in the CBD. It is only with regard to parking that law enforcement is lacking.

A further contributing factor to the congested situation in the CBD of Mbabane is the unsynchronised traffic lights, which are partly as a result of the fact that different spheres of Government (National vs. Municipal) are responsible for different traffic lights. A lack of co-ordination and integration has been identified. Traffic control is an integral part of traffic flow regulation and traffic safety. The two traffic control measures applied in the CBD are priority controlled and traffic signal controlled. Signal Controlled intersections are to be found on those streets with the higher volumes, while priority controlled intersections are to be found on those streets with lower volumes.

An initial assessment of the Capital Improvement Programme (CIP), together with the sources of funding available to the Council, clearly proved that the largest part of available funding is already committed for the next 3 years and as a result, very little funding is available to fund new projects.

It can finally be concluded that the Transport Status Quo of the City of Mbabane, as set out in this report, provided a solid background and foundation for the Forward Planning Phase provided in the next chapter, during which solutions were formulated in order to remedy the challenges and problems already identified.

1.4 Public Transport Management Strategy

The public transport management strategy for Mbabane is built on the following 5 solution-pillars, being:

1. Public Transport Operations Network
2. Public Transport Infrastructure Requirements
3. Enabling Legal and Regulatory Framework
4. Traffic Congestion Management Plan
5. Guide to Facilitate Public Complaints and Management of Public Transport Problems

Public Transport Operations Network

The City aims to ensure that sustainable, affordable and safe public transport services are rendered to the City's commuters. The public transport services rendered by buses and kombis cover the City extensively in such a manner that commuters are able to travel from anywhere in and around Mbabane to any other place in and around Mbabane. The City's Strategic Public Transport Network (SPTN) provides a depiction of the extent of coverage of the existing public transport services, rendered in Mbabane's CBD and surrounding areas. It is clear that this integrated network of services serves all main land-uses and, amongst others, links residential areas around the CBD with work opportunities in the Mbabane CBD.

In line with the City's aim to integrate the public transport network of modes and -services, the integration of fares should receive a high priority. This will entail the integration of public transport fares across public transport modes and/or services. Commuters will, in theory, be able to travel their entire journey between home and work, using a single ticket, irrespective of the number of transfers between modes or operators.

The practice of setting fares should be re-examined and if Government proceeds with the practice, care should be taken to see that fares are reasonable for passengers but also provide adequate cost recovery and profit levels for operators. Fare setting is justified if subsidies are paid by Government, either to the operator directly or to the passenger by means of subsidised tickets. Lower fares will mean higher subsidies, and vice-versa. Fares must provide for fair competition between operators.

A conscious drive should be launched to encourage kombi operators to upgrade to larger buses. This will open up the economies of scale and simultaneously significantly reduce congestion. This does not need to happen overnight, but can be phased in over time to coincide with the recapitalization of operators' vehicle fleets.

The bus rank operates in an orderly fashion, but a few difficulties have been noticed during inspection of the facility. Some of these difficulties relate to the manner in which commuters and vehicles are "mixed". Commuters walk in-between the vehicles in search for the right vehicle to board to take them to the desired destination. In the absence of destination boards/signs, rank marshals make use of a hailing technique to announce which vehicles are to be loaded for each of the respective destinations. This method applies to both local and long distance services alike.

In order to streamline the operations, and specifically the flow of vehicles and commuters, the introduction of a number of "low-cost, high impact" implementation possibilities are suggested. The display of signage for destinations and traveller information will largely improve the movement of commuters and vehicles within the rank. Additional curbing with the purpose of facilitating the queuing of vehicles will greatly assist in formalizing the ranking and loading per destination.

The current system for the issuing of public transport permits seems to be working well, particularly with respect to management and control. However, the 12-month validity period can be viewed as an inhibiting factor for the recapitalization of the public transport fleet. Banks as financing institutions deem vehicle loans as extremely risky if the authorization to operate is shorter than the payback period of such financing.

With respect to the permit approval process, it has come to light that the RTB regards the municipality's comments on a permit application, merely as a recommendation and not as a ruling, based on a permit strategy as part of its public transport plan. As a result, permits are often awarded or rejected in contradiction to the municipality's recommendation. This

process should be formulated in such a manner that the municipality's recommendation is taken as a strong ruling on an application, and is therefore respected and not overturned by the RTB.

During the process of conducting the rank counts, in order to determine utilization of the bus rank, it has been observed that in the case of kombis destined for Manzini and other cross-border destinations, commuters were waiting inside the vehicles for other commuters to fill the vehicles before the respective vehicles could depart. The phenomena points to an over-supply or over-trading of vehicles, compared to the demand for such services.

Despite a few instances where possible over-trading of vehicles on certain routes has been observed, it would seem as if there is generally a good balance between commuter demand for those services and vehicles supplying seating capacity to render the services.

Public Transport Infrastructure Requirements

In line with the City's aim to work towards an integrated network of public transport services, the infrastructure, specifically the public transport termini and ranks, should support the service network, enabling physical integration with safe off-street transfer of commuters from one mode to the next. The reality however, is that services in and around Mbabane operate in a hub-and-spoke configuration, all converging in the CBD at the current bus rank. The CBD is relatively small and if additional termini or small ranks are in addition provided within or just outside the CBD, it will inconvenience commuters in terms of additional time for transfers, thus adding additional travel time.

It has been observed that buses, kombis and midi-buses, as well as taxis stand in the bus rank for the largest part of the day. Such vehicles arrive directly after making the last trip during the morning peak and then remain stationary in the rank until departure for the first trip during the afternoon peak. Very few vehicles, especially kombis and midi-buses, leave the rank during the day to render off-peak services. The Rank is thus being used as a holding area. These operational circumstances create enormous congestion and capacity constraints within the bus rank.

In order to circumvent this adverse situation, the loading- and off-loading activities need to be split from the holding or ranking of vehicles. With the capacity in the rank being constrained in terms of space, ideally only loading and off-loading should take place inside the rank, with the holding of vehicles taking place off-site. Such off-site holding facilities should ideally be not too far from the main rank, but simultaneously far enough away from the rank, so as not to influence the traffic situation by contributing towards the existing congestion situation. No loading or off-loading of commuters whatsoever should be allowed at such holding areas. The holding areas are therefore suggested as operational facilities only and not as service facilities.

A number of possible sites have been identified within an approximate 1 kilometre radius from the main rank, so as to minimize dead kilometre costs to be incurred by the respective public transport operators. The utilization of all these facilities as possible holding areas is subject to proper investigation to determine the practicality and suitability of each. Public transport operators make extensive use of both the national and local road networks in and around Mbabane. For inter-city movements, national roads are mainly being used, wherever possible. Local or short distance services make use of the extensive local road network, comprising of major- and minor roads, as well as minor arterials.

The possibilities of conversion of some of the roads within the Mbabane CBD to one-way streets or the feasibility of introducing High Occupancy Vehicle (HOV) lanes have been

investigated. Given the relatively low vehicle volumes on these CBD roads during peak periods, none of these options however seem to be warranted and therefore are not recommended at this stage.

Enabling Regulatory & Management Framework

There is a need for the following functions to be consolidated within the City's administration:

- Transport planning and providing input to the permit issuing process. One official who has experience or training in transport planning or related aspects should suffice. His/her duties will be to assist with the preparation and updating of the City's transport plan. On receiving permit applications, this official should check the plan and provide input to the RTB on the following:
 - The need/justification for the service in relation to existing and planned services. For example, if the City were planning a subsidised bus service or rapid transit system on a route it should not support applications for other services on that route;
 - Ranking space, and
 - Traffic considerations.
- Transport infrastructure management, especially of the Rank and proposed holding areas, as well as NMT aspects (bicycle lock-up facilities, clearing and improving sidewalks etc.). This should ideally be done by a qualified civil engineer or appropriately trained technician. It will involve advising the Council on new facilities and maintenance and management of existing ones. He/she should undertake a survey of sidewalks in the CBD to ensure that structures, such as poles, advertisements, dustbins etc. do not impede pedestrians and wheelchair users. Attention should be given to the provision of NMT infrastructure such as bicycle lock-up facilities. When new malls etc. are planned, appropriate infrastructure such as taxi ranking space and bicycle facilities should be required.
- Land-use planning in relation to transport (densification, infilling, planning of PT routes etc.). This should ideally be a qualified town planner or a person with similar expertise. He/she should give constant attention to matters such as the following:
 - Encouraging densification and infilling of urban areas to prevent urban sprawl;
 - Planning of development along established PT routes, so that ideally rail or bus services can be used optimally and that taxis then merely have to provide feeder services;
 - Planning of PT routes so as to optimise traffic flows, and
 - Providing preference for PT services over private car use.
- Through-ticketing and fares. This function can be undertaken by the planning official. Although the practice of fare setting should be reviewed, fare structures can be used to promote desired outcomes, such as the use of larger vehicles like buses rather than kombis or sedans.
- Managing the Call Centre (see Section 4.6 below). This Centre should ideally be manned by an official trained in public relations, advertising or related skills.
- Management issuing of permits for routes. This should be undertaken by the planner contemplated in the first bullet above.

There is a need to conduct a thorough Institutional/Organisational work-study in order to establish the most appropriate structure to conduct all the above-mentioned public transport related functions.

This could be provided for by means of a dedicated transport and land-use unit/section/department staffed by properly qualified professionals and/or officials with the necessary knowledge, training or experience. All aspects of managing the rank and holding areas should fall under the aegis of a single responsible official.

Once the findings of the organisational work-study have been approved by Council, the implementation and staffing of the proposed organisational structure need to be implemented as a matter of urgency.

There should be closer liaison between the City and the RTB in the permit issuing process and a closer relationship between permit issuing and transport planning.

The dichotomy in the legislation between the 3 year and 12 months validity periods of permits should be cleared up in the new Bill.

The transfer of permits from one operator to another should be provided for in the new Bill as an expedited process.

There is a view that “temporary” permits should be introduced, e.g. for special events. This could be provided for in the new Bill.

The City could also consider entering into contracts with operators, either through their associations or individually, in respect of the use of the Rank and holding areas. This could go hand-in-hand with fees paid for using the facilities, the use, maintenance and cleaning thereof, and could include other aspects such as subsidies, either to lower fares or to provide an incentive for good operator behavior.

Queue marshals/rank marshals (who manage loading and operations at the Rank) should be employed by the Council and not by kombi associations and other public transport operators. This would imply a considerable change to the status quo. Where marshals are appointed by operators associations they should be subject to being recognized and/or registered by the Council. The appointment, functions and identification of marshals should be provided for in bye-laws. Carrying out of regular passenger surveys and data collection on routes may also be eased if municipal employees were managing operations at the rank, rather than operators/associations. It would, however, be a significant additional responsibility for the Council, and could be resisted by the associations.

Funding of the redevelopment of the bus rank can be made possible by PPP opportunities where commercial space is a part of the solution.

Steps that should be taken include the following:

- a) Discuss and take decisions on policy issues, such as:
 - a. Should associations/operators pay to use facilities?
 - b. How should payment be made? For example by means of monthly/annual payments by the associations or by means of issuing rank permits or a simple entrance fee.
 - c. Should rank marshals be officials or be appointed by the associations?
- b) Verify that the various operator associations mentioned in 3.2.2 above are the ones whose members use the Rank.

- c) Negotiate with the associations/operators to enter into/renew agreements for management of the Rank and the proposed holding area. The agreements should provide for the following, among others:
- a. Conditions of the use of the facilities by the associations and their members. A lease would probably not be appropriate as there is more than one association.
 - b. Fees/rent for use of the facilities. This could be in the form of a fee for a rank permit that is required or a set monthly or annual fee payable by the association.
 - c. Issuing of rank permits and/or decals to operators.
 - d. Listing the obligations of the City, e.g. to make the land and infrastructure available.
 - e. Listing the obligations of the Association. This could include the responsibility to keep the facilities clean, maintain toilets, light bulbs etc.
 - f. Appointment, powers and duties of rank marshals. These could be officials or marshals appointed by the association.
 - g. Duty to collect and provide information to the City, e.g. on the numbers of operators using the rank on a daily basis, etc.
 - h. Responsibility for damages and losses.
 - i. Consequences of breach of the agreement,
 - j. Other provisions, e.g. that the agreement is the only record of what was agreed, etc.
- d) The City should investigate the possibility of making bye-laws on public transport issues and NMT, which could include the provision and use of facilities, issuing of rank permits/decals etc. The procedure for making bye-laws is set out in 3.4.2.1 above.

A dedicated unit of traffic officers, appointed by the City in terms of section 5 of the Road Traffic Act, or a unit of inspectors provided for in the new Bill, should be considered with the focus on public transport. They should report to the City and be responsible for the following, among others:

- Policing the permit system;
- Parking control at and around the Rank and proposed holding areas;
- Supervision of rank marshals;
- Safety and security at public transport facilities/ranks and in vehicles;
- Traffic control in the CBD.

The City should investigate the possibility of appointing traffic officers under the Road Traffic Act to form a dedicated unit, or negotiate with the Police with a view to entering into a memorandum of understanding (MoU) on the provision of a dedicated unit of officers. The MoU should provide for aspects such as the reporting of the officers to the City, liaison between the Police and the City, regular meetings, special initiatives to normalise the situation at the facilities, dealing with emergency situations, etc.

Traffic Congestion Management Plan

In order to solve Mbabane's traffic congestion, a number of solutions and/or alterations to the status quo need to be made. These proposed solutions are discussed individually below.

Solving the problems related to, amongst others, parking infrastructure, NMT infrastructure, freight movements and traffic light signal settings, will improve the traffic flow within the CBD and thereby reduce congestion.

In order to address the parking demand properly, a comprehensive parking inventory should be done. The parking inventory should include the type of parking, parking dimensions, location and number of parking bays. A comprehensive parking survey needs to be done in order to be able to quantify the number of vehicles doing long term or short term parking, as well as the duration of parking and the occupancy of parking space throughout the day. The introduction of Park-'n-Ride facilities on the outskirts of the CBD can also be considered.

The small size of the CBD results in short walking distances and thus makes it ideal to provide one or two large central parking areas. This decision will be influenced by available space, budget constraints and the outcome of the recommended parking inventory and parking survey.

It is of major importance that the parking regulations are enforced on all new developments in the CBD. It is further recommended that traffic impact studies be conducted for all development applications, indicating parking, NMT, public transport, etc.

Pedestrians are exposed not only to weather conditions, but also to vehicles. With regard to the latter it is important to keep pedestrian/vehicle conflict to a minimum and where this conflict cannot be prohibited it needs to be under controlled conditions. This conflict can be kept to a minimum by paying attention to a number of factors.

The minimum width of sidewalks needs to be such that two persons can easily pass one another, without having to make use of the street surface. It is also important that the width of sidewalks is in line with the pedestrian volumes. In areas where high pedestrian volumes occur, such as in the vicinity of the rank and along Mahlokoha Street, the sidewalks need to be of sufficient width to accommodate the high volume of passengers.

Obstacles on sidewalks need to be either removed, moved to the side and/or have their orientation changed. By moving dustbins (which are a necessity) to the other side of the sidewalks and changing their orientation, additional space can be created on the existing sidewalks.

Special attention should be given to repair of the paved areas of sidewalks as quickly as possible to reduce the risk, especially for physically impaired and elderly persons. This could expose the Council to legal claims where persons are killed or injured. With regard to reducing the cost of repairs it will be beneficial to make use of standardised flat bricks. The CBD is well covered by public transport routes and virtually all of the CBD area is accessible with 500 meters from a public transport route. Public transport stops must be reviewed to ensure location is optimally situated to serve the various land uses.

It is important to keep all heavy vehicles out of the CBD, except for delivery vehicles with destinations within the CBD and construction vehicles that service construction sites within the CBD. Expansion of the current industrial areas and the location of future industrial areas together with access to such areas, needs to be planned such that it will not be necessary for heavy vehicles to travel through the CBD.

The MR3, MR19, as well as Sozisa- and Makhosikhosi Roads have been identified as freight routes with the purpose of causing the least disruption to other traffic, especially during peak periods when congestion is at its highest. During off-peak periods, Somhlolo Road, Gwamile Street and Hahlokoha Street can also be used by freight vehicles for deliveries to shops and outlets inside the CBD. Wherever possible, delivery times should be scheduled for the off-peak period during the day, or better still, for after working hours, at night.

Law enforcement, especially of illegal parking, will render a very large contribution to road safety. If illegal parking, double parking and contra-flow parking is prevented, a drastic improvement in terms of congestion will be realized.

All traffic control intersections in Mbabane need to fall under the jurisdiction of one authority and the ideal authority is Mbabane Municipality.

Once the signal plans have been obtained, a proper evaluation of the signal intersections must be done to determine and quantify the levels of congestion at each intersection.

After the parking and pedestrian problems have been solved the timing plans need to be re-evaluated and adjusted accordingly. It will then make sense to properly coordinate the traffic signals where applicable.

It is important to be consistent with regard to the road markings, road signs and traffic light layout throughout the application of traffic control in the CBD and elsewhere in Mbabane.

Guide to Facilitate Public Complaints and Management of Public Transport Problems

There is a need to create a more customer-oriented focus in public transport in general. Public transport passengers need to be able to lodge complaints at a Call-Centre about poor services and report transgressions by operators, and have them resolved. Consideration should be given to the introduction of a toll-free complaints hotline. Such a hotline should not only log calls, but relay the complaints received to the relevant department for attention and resolution. A reasonable time frame for constructive feedback should be set and adhered to. Another way to facilitate complaints is by means of a text or SMS or a combination of a call-centre and SMS'es for feedback. With the latest advances made by social media and web-sites, more than one or a combination of the above-mentioned can be introduced to facilitate complaints related to public transport services.

The proposed Call-Centre's function should not only be seen in a negative light and can therefore also serve as an information office where passengers and tourists can obtain information on public transport.

In addition, a public transport web-site may be considered where all public transport related information is provided, such as routes, fares, time tables, location of shops, etc.

In order to measure performance, periodic monitoring and evaluation of the public transport system is proposed to be undertaken by means of surveys and observations. From the onset, a set of performance objectives need to be set in the form of Key Performance Indicators (KPIs). Each KPI need to have realistically achievable targets set, which can be reviewed on an annual basis. The municipality can use these measurements against the KPIs to benchmark how the City is performing in terms of its public transport system.

In order to ensure compliance by public transport operators, contract monitoring by means of penalties for non-conformance can be introduced. The ultimate sanction against an operator would be to have his/her permit withdrawn in terms of section 7 of the Road Transportation Act. As such the complaints-handling function should probably be lodged with the City or the RTB. This should be tied to a procedure to cancel the permits of non-compliant operators.

1.5 Project Budget Programme and Funding Strategy

In order to implement the Public Transport Management Strategy, it is imperative to identify the Capital and Operational Budgets required for implementation. The additional funding required for implementation of the strategy is as follows:

NO.	ACTION/PROJECT	CAPITAL COSTS (CAPEX)	OPERATIONAL COSTS (OPEX)
1.	Study to integrate public transport fares		E600,000
2.	Re-examination the practice by Central Government of setting fares		E1,000,000
3.	Conduct a marketing exercise to encourage kombi operators to upgrade to larger buses		E800,000
4.	Investigate the display of signage for destinations and traveller information		E500,000
5.	Implementation of signage and destination boards for traveller information	E800,000	
6.	Implementation of additional curbing to facilitate the queuing of vehicles in the bus rank	E1,200,000	
7.	Conduct a Permit Strategy with the purpose of accurately establishing a balance between supply and demand		E900,000
8.	Investigation to determine the suitability of each of the identified sites, proposed for development as Holding Areas		E800,000
9.	Implementation and Formalization of 2x Holding Areas outside the CBD	E8,000,000	
10.	Conduct a thorough Institutional/Organisational work-study in order to establish the most appropriate structure to conduct all public transport related functions		E1,000,000
11.	Implementation and staffing of the proposed organisational structure proposed		E7,000,000
12.	Conduct Parking Inventory and Comprehensive Parking Survey		E900,000
13.	Setting up of a Toll-Free Complaints Hotline		E1,000,000
14.	Construction of a Call-Centre	E3,000,000	
Total		E13,000,000	E14,500,000

It should be noted that only a high-level cost estimate, based on the cost experience of similar projects, have been done and it is therefore advised that these costs be reviewed and adjusted by the Municipality for budgeting purposes.

The planning and implementation projects identified above, linked to the respective operational- and capital budget estimations, is an indication of the extent of funding required to implement the public transport management strategy. It is important to prioritize and phase these projects, in relation to the projects already appearing on the 2016/17 – 2018/19 CIP. The specific demand for the respective project, the urgency (timing), value for money, as well as if the project is meeting the overall strategic objectives, need to receive consideration.

1.6 Stakeholder Consultation and Capacity Building

The first of two Stakeholder Workshops took place on 3 and 4 May 2016, with the purpose of introducing the project to all stakeholders, establishing future communication channels, conducting the needs assessment and obtaining challenges, problems and issues which need to be addressed throughout the execution of the project. Very good co-operation has been obtained from the majority of stakeholders. Congestion has been highlighted as the largest single challenge affecting the majority of stakeholders.

During the second and last Stakeholder Workshop, scheduled for 6 December 2016, the results, findings and recommendations will be presented with the purpose of obtaining final inputs and comments. The draft report will thereafter be finalized.

During the survey process, a number of Council officials were involved with the execution of the surveys and the management of the students used to collect the survey data.

1.7 Conclusions

The public transport management strategy identified a number of actions and tasks, manifesting themselves in solid planning- and implementation projects which have been linked to operational- and capital budget estimates respectively. The following actions have been identified:

Public Transport Operational Network

- The integration of fares across public transport modes and/or services should receive a high priority;
- The practice by central Government of setting maximum fares, should be re-examined;
- Kombi operators should be encouraged to upgrade over time to larger buses;
- Improve the signage for destinations and traveller information, especially at the bus rank;
- Add additional curbing, with the purpose of facilitating the queuing of vehicles, at the bus rank;
- The process of commenting on permit applications should be formalized in such a manner that the municipality's recommendations are respected by the RTB;
- The supply of public transport vehicles and demand for commuter services need to be brought into balance.

Public Transport Infrastructure Requirements

- Only loading- and off-loading of commuters need to take place in the bus rank, whilst the holding of vehicles should take place off-site. For this purpose, several possible sites within a approximately 1 kilometre radius from the bus rank have been identified. A proper investigation is required in order to determine the practicality and suitability of each option, or a combination of options.

Enabling Regulatory & Management Framework

- A thorough institutional/organisational work-study need to be undertaken in order to establish the most appropriate structure to conduct all public transport related functions;
- There are a number of changes proposed to existing legislation in order to, amongst others, streamline the permit issuing process, the transfer of permits and temporary permits;
- Contracting with operators is suggested as a possibility to manage the bus rank and other similar facilities;
- Consideration should be given to Council employing queue marshals/rank marshals, if not; they should be registered by Council. This will provide Council a larger amount of control of the rank/facility;
- The introduction of dedicated public transport law enforcement personnel should be considered.

Traffic Congestion Management Plan

- In an attempt to reduce parking in the CBD of Mbabane, a parking inventory and comprehensive parking survey should be conducted;
- The introduction of Park-'n-Ride facilities on the outskirts of the CBD need to be considered;
- Obstacles on sidewalks need to be either removed, moved to the side and/or have their orientation changed;
- Freight vehicles should be restricted to keep to the identified freight routes, as specified during peak and off-peak periods respectively;
- Illegal parking, double parking and contra-flow parking should be prevented, so as to drastically reduce congestion;
- The necessary co-ordination between National Government and the Municipality of Mbabane should be accomplished, so as to synchronize the traffic lights falling under different jurisdictions.

Guide to Facilitate Public Complaints and Management of Public Transport Problems

- A Call-Centre with a Toll-free complaints hotline should be set up to deal with public complaints, and secondly act as a public transport information centre
- Key Performance Indicators (KPIs) as performance objectives should be set, against which performance of the public transport system are periodically measured, monitored and evaluated.

Budget for the Public Transport Management Strategy

A high-level estimate of the total Capital value (Capex) of infrastructure improvements amounts to E13 million, while the estimated Operational budget (Opex) amounts to E14,5 million. Most of these amounts can however be phased over a number of financial years, except for recurring costs such as personnel-related costs which will be required year-after-year.