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Eikestad Parking PPP

Feasibility Study: Summary Report

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SMEC Company Details

Approved by	JW Botha Pr Eng		
Address	65 Riebeek Street		
	Cape Town	South Africa	8001
Telephone	+27 (0) 21 417 2900	**Website**	www.smec.com
Email	Cobus.botha@smec.com		
Signature	 2020-03-24T13:20:49+02:00 Mpho		

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Executive Summary

Stellenbosch experiences major congestion in the CBD and other parts of the city. In addition, the Comprehensive Integrated Transport Plan indicates a need for sustainable transport that amongst other factors requires a reduction in traffic congestion and an increase in mode shifts, such as public transport and/or non-motorised transport.

A prefeasibility study and demand investigation was conducted for parking the Stellenbosch CBD and Techno Park in 2021. Due to the section 78(4) resolution in 2019 on the matter, the preferability was developed to assess the possibility of a parking gauge facility as a possible external mechanism project while at grade facilities would be done through an internal mechanism. As part of that study the following was recommended:

- The Eikestad Parking Garage be considered as a viable option as a PPP contract and could further be considered to be registered with National Treasury as a possible PPP project, so that a feasibility analysis of the possible PPP project can be done through the appointed transaction advisor.
- The analysis of the techno park parking needs clearly identified the need for additional parking. However, due to the parking utilisation and the nature of the space time needs for the Techno Park demand, as well as the willingness for employees of Techno Park to pay for parking, it resulted in the feasibility of a parking garage being unfavourable. However, based on the same considerations, an at-grade facility located as per the concept designs, returned a sustainable financial assessment.
- It is recommended that the at-graded facility be developed into a formal project and the designs and construction of the facility move forward internally with the municipality.

Based on the above, SLM register the Eikestad Parking Garage with National Treasury as a possible PPP project and appointed the Transaction advisor as per phase one of the PPP project cycle. The structure and methodology of the feasibility was done as follows:

Phase 1: Needs Analysis

This phase was the review of the needs for sustainable transport and improved transport in Stellenbosch.

Phase 2: Demand Analysis

The Demand Analysis phase is done through assessing the existing congestion levels in Stellenbosch and at existing parking facilities in Stellenbosch, as well as surveys of all public parking facilities in the CBD. The surveys conducted were both actual counts, as well as preference surveys.

Phase 3: Concept Developments

The concepts have been developed using the parking demands, historical and heritage significance, financial considerations, functionality and impact on the surrounding road networks. The concepts have been prepared in a 3D model and the impact on the road network have been assed using SIDRA and based on the level of service that the accesses have on the road network.

Phase 4: Options Analysis and Project Due Diligence

- Environmental assessment
- Traffic study
- Desktop geotechnical investigation
- Heritage study
- The legal study
- Socio-economic studies regarding BBBEE Targets in PPP Reference

Phase 5: Value Assessment

- Affordability of the facility though conversional process:
- PPP reference model
- Appropriate risk transfer

- Value for money

Economic Evaluation

- Social accounting matrix
- Cost benefit analysis

Needs Analysis

The needs analysis was done to align the current strategic objectives to the current CITP, DITP municipal needs, internal or external mechanism, type of external structure, available budget and resources for an internal structure, the review of the existing section 78 council decisions, environmental needs, heritage needs, job creation, geotechnical investigation and BBBEE and socio-economic requirements.

A section 78 was previously done in 2019 and the recommendations from council was that:

- Parking forms an important part of the total Mobility concept within Greater Stellenbosch Area and relates to other major parts such as: Traffic Flow, Public Transport (PT), Non-Motorised Transport (NMT), Transit Oriented Development (TOD), and Movement of Disabled Persons (normally seen as a primary part of NMT).
- That the municipality needs to provide enough public parking.
- That the continuous provision of road infrastructure for private vehicles is not sustainable.
- That the future demands of parking must also be advised on and provided for.
- That Council uses an approach where a private company is to be procured to provide a parking service to build, own, operate and transfer the entity to Council after a period of 20 years.
- That Council, in terms of the Municipal Systems Act (MSA), Act 32 of 200, as amended, Section 78(4), accepts that the method of providing parking be considered as follows:
    - Provision of open one level parking space needs, be performed on an internal mechanism
    - Provision of multi storied parking space needs, be performed on an external mechanism

Of the ten major types of PPP contracts, the BOOT contract was deemed the most suitable for the multi-story type parking structure based on the following:

- The Municipality does not have the finances to build the facility, while the private sector does;
- The BOOT system is widely used in SA and encourages private investment;
- It has the potential to inject new foreign capital to the country;
- With this model and the concession ownership, there is ample time to transfer skills and know-how;
- Will allow for a faster construction and procurement phase;
- This type of system allows for financial sources from the municipality to be allocated to other priority projects;
- Releasing the burden on public budget for infrastructure development.
- A private company has the technical expertise and resources to manage and maintain such a project while training municipal staff.
- The financial, equity and operational risks are transferred to the private sector.

Demand Analysis

A detailed parking inventory of all the existing public parking facilities in the study area was undertaken on 24 August 2020, where the following were recorded: parking area type, number of parking spaces per parking facility operating times and parking duration time limit, and parking fees and method of collection.

An updated inventory was undertaken on 3 October 2023 to record the operating times, parking duration time limit, parking fees and method of collection.

Parking surveys were undertaken in the study area from 06:00 to 18:00 between 15 and 19 September 2020 as well as between 22 and 24 April 2021, for the pre-feasibility study done in 2021 for a parking facility in the study

area. The same parking surveys were undertaken for the Public Private Partnership for Eikestad Parking Development appointment between 18 and 20 May 2023 for the peak period and 11 and 15 July 2023 for the off-peak period.

A 20% increase in the peak Parking Accumulation was observed from 2020 to 2021 and a further 85% increase was observed from 2021 to 2023 during typical weekdays. It was also noted that the usable capacity was exceeded in 2023.

The base year for the study was selected for 2023 while the horizon year was selected as 2028. The demand was calculated in four phases for the base year with an additional two phases for the horizon year:

Base Year:

1. **Stage 1:** 2023 Status Quo:
    - The estimated percentage of the current illegal parking demand.
    - Existing overflow estimated percentage.
    - Current utilisation of the off street Eikestad Facility.
2. **Stage 2:** Incorporate projects and policies that will increase the parking demand, such as:
    - Pedestrianisation of certain streets; and
    - Elimination of parking to increase street capacity.
3. **Stage 3:** Optimise parking search time and utilization of parking areas with the implementation of a parking management system. This allows vehicles to find parking quicker and thus may reduce congestion in the CBD, it would however, not affect the max demand for parking in the CBD but would reduce waiting and circulating traffic there by allocating parking more effectively. For this scenario, it was estimated to have an effect of 10% of the parking bays required. This was estimated form the proportion of overflow vehicles that may utilise the paid off-street parking. However, this does not reduce the total demand for parking.
4. **Stage 4:** Incorporate measures and systems that will reduce the demand for parking, such as:
    - Park and ride systems;
    - Shuttle routes; and
    - Public transport systems, etc.

Horizon Year:

1. **Stage 2:** Apply a compound growth of 2.57% per annum to the status quo peak parking demand to calculate the 2028 horizon year parking demand.
2. **Stage 3:** Incorporate measures and systems that will reduce the demand for parking, such as:
    - Park and ride systems;
    - Shuttle routes; and
    - Public transport systems, etc.

The results were as follows:

Stages	2023			Comments
	Method 1	Method 2	Method 3	
Stage 1	255	314	340	2023 is influenced by the available capacity in the underground for M1 and 2
Stage 2	321	384	**475**	
Stage 3	248	258	382	
Average	285	319	399	

Stages	2028			Comments
	Method 1	Method 2	Method 3	
Stage 1		473	460	Due to growth over the system, the M1 and M2 capacity for the underground is limited
Stage 2	520	562	**548**	
Stage 3	284	469	440	
Average	402	502	483	

The parking facility size was calculated to be between 475 and 548 bays. Based on the stage mitigation measures and the practical capacity of the site due to the floor levels, a parking facility of 498 bays was used as the proposed parking facility.

Options Analysis

Nine sites were assessed from a suitability aspect. Based on the assessment, the most suitable location for the facility was the existing Eikestad open parking behind the Eikestad Mall.

Economic Analysis

The demand for parking services in the CBD amounted to 300 bays. Based on the needs analysis and based on the solutions analysis, the Eikestad Mall parking area was identified as the most feasible options for parking facilities.

Due to the conditions of the CBD and the nature and parking utilisation demand, the CBD Eikestad parking needs identified a need for a multi-story parking facility. As a result, the feasibility of this facility was assessed for the public sector, as well as a possible PPP project.

The value for money assessment of the Eikestad Parking garage resulted in the project having a feasibility assessment as favourable for a possible PPP BOOT contract. It is apparent that the private sector gives an initial favourable value for money on the following considerations:

- Technical Abilities;
- Risk Transfer abilities;
- Financial Returns and affordability;
- BEE target spend and upskill.

In addition, due to the cost and expertise required to fund and manage the facility, it creates a significant risk for the municipality to design-construct-operate and maintain the facility. The facility was assessed for both a 20- and 25-year forecast. The 20-year forecast deemed the minimum period, while the 25-year forecast deemed the longest. The analysis indicated that the 20-year forecast has scenarios 4, 5 and 6 that are acceptable, while the 25 year forecast allows for scenario 3, 4, 5 and 6 to be acceptable. As a result, the more favourable concession period was deemed for the 25-year period. As a result, it is recommended that the Eikestad Parking Garage be considered as a viable option as a PPP contract. Based on the analysis, it is recommended that treasury approval 1 is approved.

Financial Analysis

The initial value for money test was conducted for three criteria, namely a Financial and Technical capacity, Cost and BEE targets and finally based on the Net present values. The models have the exact same revenue incomes, discount rate and inflation, as per scenario 6 of the 20-year forecast. The 20-year analysis was selected as this is the minimum concession period. The Financial and Technical section indicate that the private sector would be able to secure funds, has industry experience is managing this type of project and has the technical capacity to operate and maintain such a facility. The public sector could fund the project, however this would detach funding from other capital projects that may be needed. In addition, the public sector does not have the capacity to manage and operate such a facility. The cost analysis indicated that the NPV of the private sector and the public sector is

similar excluding VAT and Tax, however, the private sector has a factor of 5 in its returns to BEE partners. In addition, due to Tax and VAT, the private sector returns an additional NPV of R66m to the public sector over 20 years and R122m over 25 years.

The NPV risk analysis indicated that the private sector could manage the risks far more efficiently and has the ability to reduce the total risk cost to the public sector by almost 60% in transferred risks as per the NPV value of the project. This is significant risk transfer.

In assessing the risk adjusted NPV total returns, the NPV of the private sector before Tax is greater than the risk adjusted public sector NPV. This is as a result of better risk management expected for the private sector. In addition, the facility will be transferred at no and or nominal consideration (as negotiated with private party) back to the municipality with a viable useful asset with an agreed to remaining life required.

Based on the analysis , it is apparent that the private sector gives an initial value for money on the:

- Technical Abilities;
- Risk Transfer abilities;
- Financial Returns and affordability; and
- BEE target spend and upskill.

Conclusion

The demand for parking services in the CBD amounted to 300 bays. Based on the needs analysis and based on the solutions analysis, the Eikestad Mall parking area was identified as the most feasible options for parking facilities.

Due to the conditions of the CBD and the nature and parking utilisation demand, the CBD Eikestad parking needs identified a need for a multi-story parking facility. As a result, the feasibility of this facility was assessed for the public sector, as well as a possible PPP project.

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List of Abbreviations

Acronym	Definition
ARR	Accounting Rate of Return
BBBEE	Broad Based Black Economic Empowerment
BEE	Black Economic Empowerment

BER	Bureau for Economic Research
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
BOT	Build-Operate-Transfer
CBD	Central Business District
CITP	Comprehensive Integrated Transport Plan
CPI	Consumer Price Index
CWD	Cape Winelands District
D&C	Design and Construct
D/E	Debt/ Equity
DB	Design-Build
DBF	Design-Build-Finance
DBFM	Design – Build – Finance – Maintain
DBFMO	Design – Build – Finance – Maintain – Operate
DBFO	Design – Build – Finance – Operate
DBSA	Development Bank South Africa
DCMF	Design – Construct – Maintain – Finance
DSAR	Debt Service Reserve Account
DSCR	Debt Service Cover Ratio
EIA	Environmental Impact Assessment
ESD	External Service Deliverer
GLA	Gross Leasable Area
IDP	Integrated Development Plan
IRR	Internal Rate of Return
JIBAR	Johannesburg Interbank Agreed Rate
LETRP	Large Employer Trip Reduction Program
LLCR	Loan Life Cover Ratio
LOS	Level of Service
MRA	Maintenance Reserve Account
MSA	Municipal Systems Act
NMT	Non-Motorised Transport
NPV	Net Present Value
O&M	Operate and Maintain
ORA	Operational Reserve Account

PH	Peak Hour
PP	Private Party
PPP	Public Private Partnerships
PPPFA	Preferential Procurement Policy Framework Act, 2000
PSC	Public Sector Comparator
PT	Public Transport
RA	Risk Adjusted
RDP	Reconstruction and Development Programme
RFP	Request for Proposal
RFQ	Request for Quotation
SDA	Service Delivery Agreement
SDF	Spatial Development Framework
SEP	Socio-economic profile
SMME	Small, medium and micro-enterprises
SPV	Special Purpose Vehicle
TA	Transaction Advisor
TA	Treasury Approval
TOD	Transit Orientated Developments
VAT	Value Added Tax
VFM	value-for-money
WACC	weighted average cost of capital
WC	Western Cape

1 Introduction

1.1 Background & Purpose of the Study

Stellenbosch experiences major congestion in the CBD and other parts of the city. In addition, the Comprehensive Integrated Transport Plan indicates a need for sustainable transport that amongst other factors requires a reduction in traffic congestion and an increase in mode shifts, such as public transport and/or non-motorised transport.

There are currently a number of projects and solutions defined with the aim of reducing the congestion and improving mode share in Stellenbosch. These are: the widening of the R44, R304, R310, construction of the western by-pass, construction of the link between Techno Park and Adam Tas, parking solutions, TOD developments, NMT infrastructure and public transport enhancement. These solutions are costly. Thus, these solutions should be seen as an integrated and comprehensive package to solve the congestion issues in Stellenbosch. This study is a focus on the feasibility of parking initiatives though an external mechanise for the Stellenbosch CBD, while taking into consideration what the other proposed solutions and designs may have on the demand of the parking proposed initiatives.

A prefeasibility study and demand investigation was conducted for parking the Stellenbosch CBD and Techno Park in 2021. Due to the section 78(4) resolution in 2019 on the matter, the preferability was developed to assess the possibility of a parking gauge facility as a possible external mechanism project while at grade facilities would be done through an internal mechanism. As part of that study the following was recommended:

- The Eikestad Parking Garage be considered as a viable option as a PPP contract and could further be considered to be registered with National Treasury as a possible PPP project, so that a feasibility analysis of the possible PPP project can be done through the appointed transaction advisor.
- The analysis of the techno park parking needs clearly identified the need for additional parking. However, due to the parking utilisation and the nature of the space time needs for the Techno Park demand, as well as the willingness for employees of Techno Park to pay for parking, it resulted in the feasibility of a parking garage being unfavourable. However, based on the same considerations, an at-grade facility located as per the concept designs, returned a sustainable financial assessment.
- It is recommended that the at-graded facility be developed into a formal project and the designs and construction of the facility move forward internally with the municipality.

Based on the above, SLM register the Eikestad Parking Garage with National Treasury as a possible PPP project and appointed the Transaction advisor as per phase one of the PPP project cycle.

1.2 Project Deliverables

The aim of the study, as defined in the inception report, is to plan, manage and facilitate the development of a multi-story parking facility for the CBD of Stellenbosch Municipality as a PPP project. Essentially, to identify the need and demand for additional parking in the CBD and assess the possibility of the project as a PPP project through phases 1, 2 and 3.

This phase of the project is phase 2: The feasibility study. The following specific tasks were identified as part of this phase of the project:

- Needs Analysis
    - Project objectives
    - Available budgets, institutional environment
    - Project duration
- Options Analysis

  - Analyse the Spatial Development Framework of the Stellenbosch Municipality and identify those developments that will increase the demand for parking;
  - Identify measures and systems that will reduce the demand for parking in the CBD's, namely: park- and ride systems, shuttle routes, public transport systems, etc.;
  - Analyse the influence of the University's policies, parking provision and public transport systems on the CBD of Stellenbosch especially, and thus the demand for parking;
  - Identify projects and policies that will increase the demand for parking namely: the pedestrianisation of certain streets, as well as the elimination of parking to increase street capacity;
  - Identify specific parking requirements for the envisaged Eikestad Mall parking facility;
  - Determine specific parking shortfalls for the horizon years of 2023 and 2028;
  - Compile the Future Parking Needs Plan;
  - Assess the accesses to the facilities;
  - Options risk and finical assessments; and
  - Suitability as a possible PPP (Public Private Partnership).
- Value Assessment
  - Develop PSC (Public Sector Comparator) models
  - Develop Risk adjusted PSC models
  - Develop PPP reference and Risk adjusted PPP reference models
  - Assess the project affordability and value for money
- Economic Valuation
- Procurement Plan

The parking study focused on providing parking facilities for the Stellenbosch CBD (on identified locations in the CBD). The key plan of the Stellenbosch CBD is indicated in Figure 1-1.

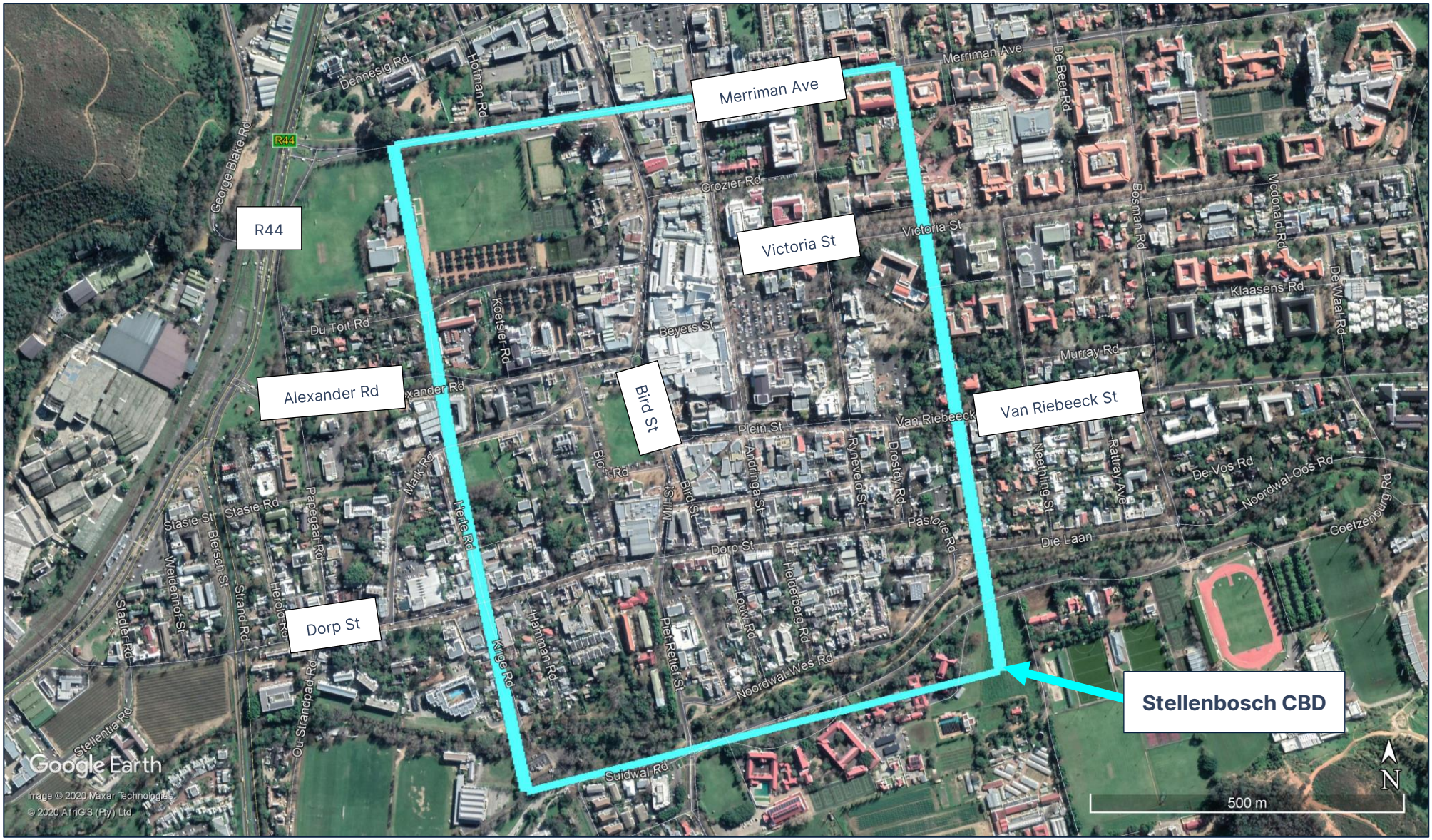

Figure 1-1: Stellenbosch CBD Parking Study Area (source: Google)

1.3 Approach and Methodology

Phase 1: Needs Analysis

This phase was the review of the needs for sustainable transport and improved transport in Stellenbosch.

Phase 2: Demand Analysis

The Demand Analysis phase is done through assessing the existing congestion levels in Stellenbosch and at existing parking facilities in Stellenbosch, as well as surveys of all public parking facilities in the CBD. The surveys conducted were both actual counts, as well as preference surveys.

Phase 3: Concept Developments.

The concepts have been developed using the parking demands, historical and heritage significance, financial considerations, functionality and impact on the surrounding road networks. The concepts have been prepared in a 3D model and the impact on the road network have been assed using SIDRA and based on the level of service that the accesses have on the road network.

Phase 4: Options Analysis and Project Due Diligence:

- Environmental assessment
- Traffic study
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- Socio-economic studies regarding BBBEE Targets in PPP Reference

Phase 5: Value Assessment:

- Affordability of the facility though conversional process:
- PPP reference model
- Appropriate risk transfer
- Value for money

Economic Evaluation:

- Social accounting matrix
- Cost benefit analysis

2 Needs Analysis

2.1 Strategic Objectives

In accordance with draft document, Section 78(1) "Stellenbosch is experiencing severe traffic congestion due to various reasons including the undersupply of parking facilities. In an attempt to relieve the traffic congestion in Stellenbosch, the municipality embarked on a number of projects which include:

1. The improvement of NMT facilities.
2. The development of rideshare and public transport through the Large Employer Trip Reduction Program (LETRP) project.
3. The investigation into an Integrated Public Transport Network.
4. Possible TOD development.
5. The proposed parking projects have a strong alignment to the municipalities vision and objects."
6. Item 5 is the focus point of this study. In accordance with the 2016 CITP for Stellenbosch municipality, the Vision of the city is:

A sustainable transport system that provides for the basic mobility needs of individuals, supports a vibrant economy and operates seamlessly within and across the municipal boundaries. With objectives to reduce congestion, increase safety, support a green municipality, good governance and to upgrade infrastructure to name a few. As part of the study, the draft section 78 report indicated that improved parking will:

- Improve safety by having safer and formal parking for motorists;
- Increase modal shift to NMT by parking centrally and walking to nearby amenities thereby reduced on-street parking needs;
- Increase the mobility town features, such as pedestrianised roads etc;
- Reduce congestion and thus reduce C02 emissions; and
- Reduce circling traffic searching for open parking bays.

As a result, the objective of this project is to propose parking projects that will enhance the environment, human health and wellbeing and aid in a sustainable transport network.

2.1.1 Alignment to Government

The proposed project must contribute and or be endorsed and validated through the implementation of government and institutional policies. As a result, the proposed parking needs are endorsed through the CITP and IDP and are guided by the following principles:

- Compliance with the Department of Transport guidelines for parking requirements in terms of the Technical Recommendation for Highways TMH16 and 17.
- Compliance with the geometric and configurative requirements, as prescribed in the Department of Transport TMH 17.
- Compliance to the municipal zoning scheme.
- Improve parking services and quality of life of residents.
- Provision of parking on the periphery of the town centre to be still within walking distance from the centre of town or in association with a shuttle service if parking is provided outside of town.
- Financial sustainability.

In addition, the proposed parking project is in accordance with the provincial sustainable transport programme. Based on the above needs, a section 78(1) report was submitted and the council findings were as follows:

"Previously Council accepted the investigation into the problem of parking within a study required by the Municipal Systems Act (MSA) section 78 (1) process. The basic requirements of parking were investigated and a Section 78(2) report was submitted to Council on 28 March 2019 and the following outcomes were debated:

i) Aspects Reviewed

The above report has provided an overview of the extent of the parking service as identified in Chapter 1 of this report, considered the process that the Municipality must follow in terms of section 78(1) of the MSA, and then reviewed each issue listed by section 78(1). These include the costs and benefits of providing the service, the Municipality's capacity to provide the service, and international and local trends with respect to transport service provision.

ii) Conclusions

The conclusions reached from interviewing key municipal officials and considering each of the aspects required by S78 (1) are that the Municipality does not currently have the financial resources or organisational capacity to internally provide a public transport service. The major factors counting against it are the increased budget required to cover the establishment and recurring costs of the service, the significant increase in staffing that would be required and a national shift in the approach to sustainable transport.

Irrespective of the mechanism selected to deliver a parking service (internal vs. external), the Municipality should consider pursuing an alternative approach to parking facilities in and around the Stellenbosch and Franshoek CBD, based on the experience of other cities and towns. The experience of Boulder in the USA can be beneficial as it has become world renowned for its sustainable transport system, that stroke a good balance between non-motorised transport modes and the private vehicle.", Section 78(3), 9/11/2019.

The process the municipality has followed is as follows:

- Section 78(1) Commencement

12TH COUNCIL: 2017-09-27: ITEM 7.6.1

RESOLVED (majority vote with abstentions)

(a) that a Section 78 process be launched and that an internal parking service delivery increase be investigated through the Section 78(1) approach;

(b) that parking service delivery increase be based on the towns of:

i) Stellenbosch
ii) Klapmuts, and
iii) Franschhoek; and

(c) that a formal report be submitted to Council as required by Section 78(2), which will indicate the best way of rendering internal parking and any recommendations to a possible external method of rendering parking services.

Meeting:	*12th Council: 2017-09-27*	*Submitted by Directorate:*	*Engineering Services*
Ref no:	*17/2/3/6*	*Author*	*D Louw*
Collab:	*538693*	*Referred from:*	*Mayco: 2017-09-13*

Figure 2-1: Council Resolution on 78(1)

- Section 78(2) Resolution:
  - "16TH COUNCIL MEETING: 2018-03-28: ITEM 7.6.2
  - RESOLVED (nem con)
  - that this report be noted;
  - that Council notes the attached report on the providing of sufficient public parking;
  - that Council accepts that all the requirements of Section 78(1) in terms of investigating the feasibility of the provision of sufficient parking have been complied with;
  - that Council, in terms of the Municipal Systems Act, Act 32 of 200, as amended, Section 78(2), accepts the scenario to "after having applied subsection (1), a municipality may, before it takes a decision on an appropriate mechanism, explore the possibility of providing the service through an external mechanism mentioned in section 76 (b).";
  - that Council formally proceeds to the Municipal Systems Act, Section 78(3) process of exploring the possibility of providing the municipal service of parking through an external mechanism; and

- that a report on the outcome of this investigation be provided to Council, upon the completion of a Section 78(3) exercise in order for Council to take a Section 78(4) decision."

The section 78(3) draft report identified the various explanations regarding the reasons for the use of an external service provider as per Table 2-1 below for the bulk parking garage:

Table 2-1: Section 78 (b) Descriptions, Source Draft Report Section 78(3)

Sect 76(b)	Service Delivery Option	Direct & Indirect Costs and Benefits	Capacity of current and Future Service Providers	Views of Local Community	Impact on Development, Job Creation and Employment Patterns	The views of organised labour
(b)(i)	Municipal Entity	The cost involved in this will be very similar to costs incurred by a private body utilising the MSA section 81 and will therefore be addressed under the "any other Institution" below	There is no capacity within Stellenbosch Local Municipality nor the Cape Wineland District Municipality to be a Bulk Parking Service of Bulk Parking Garages.	See item (b)(v)	See item (b)(v)	
(b)(ii)	Another Municipality	The parking is performed by or on behalf of the Municipality itself. This Scenario is therefore not seen as a solution in this case	The parking is performed by or on behalf of the Municipality itself. This Scenario is therefore not seen as a solution in this case	See item (b)(v)	See item (b)(v)	
(b)(iii)	An organ of state	There no parts of any organ of state that provides and manages parking on behalf of municipalities.	There no parts of any organ of state that provides and manages parking on behalf of municipalities.	See item (b)(v)	See item (b)(v)	
(b)(iv)	Community based organisation	Due to the very large capital needed to build a parking garage, there are no community organisation within Stellenbosch that would be able to build parking and perform parking and management	Current Community based organisations do not have the capacity to own and operate this kind of project	See item (b)(v)	See item (b)(v)	

Sect 76(b)	Service Delivery Option	Direct & Indirect Costs and Benefits	Capacity of current and Future Service Providers	Views of Local Community	Impact on Development, Job Creation and Employment Patterns	The views of organised labour
(b)(v)	Any other institution	Should Council decide to rather use an external mechanism for service delivery then the Private Sector would have to be asked to Build Own Operate & Transfer after a time such as 20 years (BOOT)then this would possibly be the only entity that would be capable to build and operate a service worth a few hundred of millions of Rand.	There are Private Entities that would have the capacity currently to BOOT this project and also their private entities that would in future have the capabilities to BOOT such a project	This matter has been addressed at several forums as such as: 1. Mobility Forum 2. NMT Working Group 3. IDP 4. University Rector/ Mayor Forum 5. University Department of Engineering Forum 6. Ratepayers Associations No objections were received when a proposal was made that an external Service Proved be approached to Build, Own, Operate and Transfer (BOOT) such a business.	The impact on Development, Job Creation and Employment patterns will be similar for each option. There would be assistance for future development. There would be the creation of new employment in the view of jobs such as Managers, Clerks, Technical Staff and Law Enforcement	Meeting held to explain the proposed process

The basic assessment is that the initial estimated capital and no capacity within the municipality or other municipalities/ state owned entities that can build and operate this type of facilities.

The report on Section 78(3) recommended that council accepts that:

- Parking forms an important part of the total Mobility concept within Greater Stellenbosch Area and relates to other major parts such as: Traffic Flow, Public Transport (PT), Non-Motorised Transport (NMT), Transit Oriented Development (TOD), and Movement of Disabled Persons (normally seen as a primary part of NMT).
- That the municipality needs to provide enough public parking.
- That the continuous provision of road infrastructure for private vehicles is not sustainable.
- That the future demands of parking must also be advised on and provided for.
- That Council uses an approach where a private company is to be procured to provide a parking service to build, own, operate and transfer the entity to Council after a period of 20 years.
- That Council, in terms of the Municipal Systems Act (MSA), Act 32 of 200, as amended, Section 78(4), accepts that the method of providing parking be considered as follows:
    - Provision of open one level parking space needs, be performed on an internal mechanism.
    - Provision of multi storied parking space needs, be performed on an external mechanism.

Based on the council resolution, an external service provider is required for the operations of the bulk parking garage. The Bulk Parking Garage section 78(3) identified the following possible service delivery vehicles:

1. External Service Deliverer (ESD) via a Service Delivery Agreement (SDA) Utilising Section 81 to 84 of the Municipal Systems Act.
2. ESD via Municipal Entity Utilising Chapter 8A of the Municipal Systems Act Section 86B (1)(a) Private Company.
3. ESD via Municipal Entity Utilising Chapter 8A of the Municipal Systems Act Section 86B (1)(b) Service utility.
4. Utilising Chapter 8A of the Municipal Systems Act Section 86B (1)(c) Service utility Multi- Jurisdictional Service Utility.
5. Public Private Partnership as per the Municipal Finance Management Act Section 120 of the MFMA applies.

As a result of the council decision, external partners are considered, which include the need for a Feasibility Study of the concepts and which municipal service should be considered. The feasibility must include the number of years of the provision of services and impact the project will have on the municipality regarding staff and budgets.

PPPs by municipalities are governed by section 120 of the Municipal Finance Management Act 56 of 2003 (MFMA) and the Municipal Public-Private-Partnership Regulations, 2005 made under the MFMA. The Regulations give the following definition of a PPP:

"'public-private partnership" means a commercial transaction between a municipality and a private party in term of which the private party—

a) performs a municipal function for or on behalf of a municipality, or acquires the management or use of municipal property for its own commercial purposes, or both performs a municipal function for or on behalf of a municipality and acquires the management or use of municipal property for its own commercial purposes;

b) assumes substantial financial, technical and operational risks in connection with—

(i) the performance of the municipal function;

(ii) the management or use of the municipal property; or

(iii) both; and

c) receives a benefit from performing the municipal function or from utilising the municipal property or both, by way of—

(i) consideration to be paid or given by the municipality or a municipal entity under the sole or shared control of the municipality;

(ii) charges or fees to be collected by the private party from users or customers of a service provided to them; or

(iii) a combination of the benefits referred to in subparagraphs (i) and (ii).”

The requirements and procedures for PPPs in terms of the applicable legislation are set out in the Legal Assessment Report attached as Annexure A.

A PPP as the choice for the delivery of a public service is warranted by its nature as (Module 1: SA regulations for PPP’s):

- Target public spending, principally on outputs to agreed standards.
- Using private sector financing and efficiencies.
- Allocating risks to the party best able to manage them.

A PPP is essentially a contract between a public sector institution and a private party in which the private party assumes substantial finical, technical and operational risk, Module 1: SA regulations for PPP’s and MFMA Regulations.

There are two types of PPPs specifically defined:

- where the private party performs an institutional function.
- where the private party acquires the use of state property for its own commercial purposes.

A PPP may also be a hybrid of these types. Payment in any scenario involves one of three mechanisms:

- the institution paying the private party for the delivery of the service, or
- the private party collecting fees or charges from users of the service, or
- a combination of these

Module 1 further defines a PPP as not being:

- a PPP is not a simple outsourcing of functions where substantial financial, technical and operational risk is retained by the institution.
- a PPP is not a donation by a private party for a public good.
- a PPP is not the privatisation or divesture of state assets and/or liabilities.
- a PPP is not the ‘commercialisation’ of a public function by the creation of a state-owned enterprise.
- a PPP does not constitute borrowing by the state.

2.2 PPP Models and Their Structure

2.2.1 PPP Delivery Model

2.2.1.1 Definition

There are many definitions of what a Public Private Partnership (“PPP”) is. Typically, a PPP is a contract delivery model where a private party contracts with a government entity (public party), and where the private party has the responsibility to finance, design, construct, operate and/or maintain public infrastructure over a long contract term, e.g. twenty years.

There are two basic forms of PPPs, namely: a **user-charge PPP** (were project revenue is generated by means of tolls, or train fare for example) and a **unitary-payment PPP** (also called a service-payment PPP, where government pays a fixed monthly instalment for the availability of services).

2.2.2 In this regard refer to the definition of a PPP quoted above and referred to in the guidelines of the South African National Treasury's PPP Unit Basic PPP contracting structure

Figure 2-2 below shows a basic PPP contracting structure. On a typical PPP project, a government entity contracts with a private party special purpose vehicle ("SPV"), which is a company specifically established for the implementation of the project. The SPV's appointment includes full or partial financing or the project, and as discussed earlier, could include a combination of other responsibilities, such as: the design, construction, operation and maintenance of certain infrastructure over the contract term.

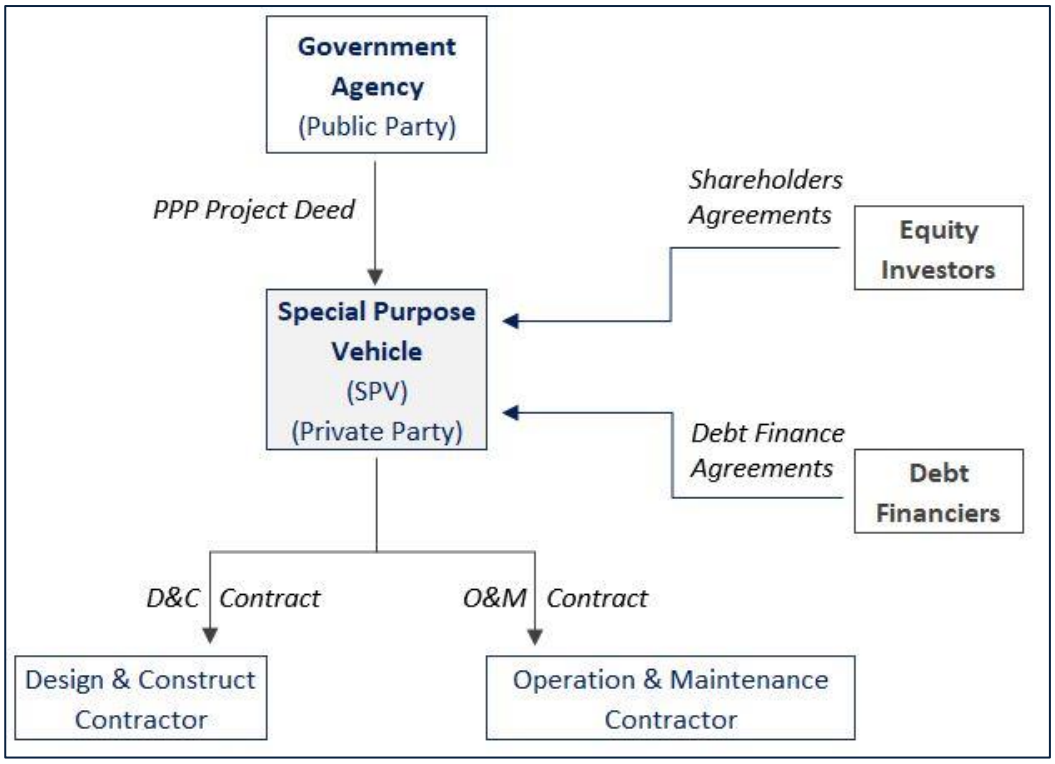


Figure 2-2: Basic PPP Contracting Structure

The SPV gets investors to invest equity into the project with the prospect of a return on their investment (over the course of the project term), from revenues generated by the project. Equity providers are the first to put their money into the project, but are also the last ones to take it out.

Further to the equity, the SPV may also borrow money from debt financiers. The debt finance is borrowed on a limited recourse basis, which means that the lenders can only have recourse to the assets of the SPV and cannot have recourse to government. It is only when the default or insolvency of the SPV's D&C (design and construction) or O&M (operation and maintenance) contractor causes the SPV to become insolvent, that the risk then falls back to government.

The SPV is therefore established to legally isolate the parent company from direct exposure to the financial risks associated with the project, because the lenders can only rely on the project revenues to secure a loan. The lenders are entitled to financial recourse before equity contributors can claim any returns or repayments, but because the equity contributors bear the highest risk, they correspondingly also 'stand to receive the highest potential returns'.

2.2.3 Advantage of using a PPP delivery model

A key advantage that is attributed to PPPs is that they achieve 'significant risk transfer from the government to the private sector'. It is true that much of the risk transfer that takes place with a PPP delivery model can also be

achieved by traditional government-financed delivery models, however, government achieves extra risk transfer under a PPP that cannot be achieved under more traditional procurement models.

2.2.4 PPPs can achieve greater Value-for-Money

Better value-for-money ("VfM") is the principle rationale for using PPPs. On projects suitable for the PPP model, greater VfM can be achieved by fewer risk for government and/or lower cost to government of managing those risks over the project term. Section 120(1)(a) of the MFMA requires that a PPP must provide value for money to the municipality.

Some of the reasons why this can be achieved by PPPs, as opposed to other contracting models, are:

- The PPP contracting structure holds a high degree of risk to the debt financiers and equity investors and therefore it results in additional due diligence and monitoring by the private sector. This adds to the quality of risk assessments and planning that goes into a PPP project;
- Government tends to spend more time and effort into preparation of PPPs, because of the long-term nature of the projects. This includes better project scoping and risk assessment;
- For user-charge PPPs, private sector contractors might not have the financial capacity to absorb demand risk, but equity investors and debt financiers might;
- The SPV's private finance provides a cushion to government, guarding against the risk of contractor insolvency or default where the contractor's liability is limited or excluded;
- The SPV shields the government from contractor claims for additional time and/or money;
- The SPV administers the D&C and O&M contractors' contracts, thereby relieving the government from risks relating to poor contract administration in that regard; and
- On most PPPs the government only starts making payment to the SPV once the development phase is completed and services are in operation. This relieves the government from the risk of paying for infrastructure that might not be fit-for-purpose.

2.2.5 PPPs as a means of Financing

2.2.5.1 Private Finance

The cost of project capital is calculated by using weightings of the financing sources and their related costs, which is called the weighted average cost of capital ("WACC"). On a PPP project the equity providers carry higher investment risks and therefore request higher rates of return than the debt financiers. Accordingly, the higher the share of equity, the higher the WACC and in other words, the higher the cost of financing.

The SPV's investors will seek to limit the equity as much as possible, because more equity means higher financing costs and therefore a lower chance of providing value-for-money to the government and a lower chance of winning the bid to contract with government for the proposed PPP. However, an increased debt-to-equity ratio increases financial risk to the SPV, because there is a limited supply of equity to absorb losses when project difficulties are experienced.

2.2.5.2 Public Finance

Governments can borrow finance more cheaply than the private sector. But to access the cheaper finance, governments need to borrow on a full recourse basis, and agree to repay the loan regardless of whether or not the net revenues generated by the project are sufficient to repay the loan. This is a lower risk to lenders and therefore the government pays lower interest rates than the private financiers on a PPP project.

In other words, the financing of a PPP project is more expensive than the financing of a project procured with a standard delivery model, such as a Construct-only model. The difference lies in the fact that the government carries the risk of poor project performance when using a standard delivery model.

2.2.5.3 Why use private finance?

While the higher cost of private sector finance will ultimately be passed on to government (or users), on a PPP project the government receives the benefit of the buffer that the private sector finance provides against the risk

of contractor insolvency or default for which the contractor's liability has exhausted. There are also the added benefits of superior risk transfer and value-for-money.

2.2.6 Projects suitable for delivery as a PPP

If a PPP delivery model is used for an unsuitable project, then the government will not achieve value-for-money and will bear the brunt of the higher financing costs, without adequate benefits to justify those costs.

Projects likely to provide value-for-money using a PPP delivery method are those with some or all of the following attributes:

- **long term**. Contracts tend to be long-term (up to/or more than 20 years), and reflect an acceptance of whole-of-life cycle costing risk by the private party;
- **measurable service outputs**. Government service requirements should have measurable outputs that can be translated to a performance contract. Payment mechanisms are generally structured around these output specifications to provide incentives for achieving key performance indicators;
- **innovation**. The project is sufficiently complex to encourage innovative approaches (in design and technology) that can deliver value-for-money;
- **whole-of-life costing**. Full integration, under the responsibility of one party, of up-front design and construction costs with ongoing service delivery, operational, maintenance and refurbishment costs. This delivers improved efficiency through whole-of-life costing as design and construction become fully integrated up-front with operations and asset management;
- **market appetite**. The project creates a genuine business opportunity, which is likely to attract a sufficient number of private parties and create an effective and competitive bidding process;
- **opportunity for risk transfer**. A PPP project needs to be structured to achieve optimal risk allocation. Value-for-money is a key driver of PPPs and there needs to be scope to allocate appropriate risk to the private sector.
- **bundling of contracts**. In many cases, the provision of a service or capability by the public sector depends on a number of separate contracts with different contractors. PPPs provide an opportunity to combine related services and an asset into a single long-term contract;
- **non-core services**. Contracts are likely to include a requirement for a range of non-core services and support activities to be delivered that currently divert management and skilled staff in the public sector. These services may include accommodation availability, information technology outputs and many other services; and
- **complementary commercial development.** The commercial opportunities that may add value to the project and/or reduce service payments to the private party (where complementary to the project objectives).

Together, these characteristics can create cost savings for government in the competitive bidding process, while giving an opportunity for innovative service delivery and a viable opportunity to the private sector (where complementary to the project objectives).

While the presence of these characteristics will not always mean that PPPs are a viable or the most appropriate option, their presence does suggest that PPP options should be properly considered as part of any Procurement Options Analysis undertaken.

All South African Municipal PPPs governed by the MFMA and Municipal Public-Private Partnership Regulations are subjected to three strict tests:

- Can the municipality **afford** the deal?
- Is it a **value-for-money** solution?
- Is **substantial** technical, operational and financial **risk** transferred to the private party?

2.2.7 Types of PPP contracts

Apart from only using a PPP for a suitable project, the relevant institution should have the capabilities of supporting the PPP implementation; have sufficient resources to finance the preparation of the PPP project (procuring transaction advisory services, send staff on training etc.); and make the PPP attractive to potential private partners.

A PPP project comes as a high risk to the private sector and therefore there should be a good opportunity for the private sector to make money on the project. In other words, there should be value for money for the private party as well.

The types of contracts that exists as a PPP, according to service works global are as follows:

- Build-Operate-Transfer (BOT)
  A BOT model is generally used to develop a discrete asset rather than a whole network, for example a toll road. This simple structure provides the most freedom for the private sector partner during construction and the public sector bears the equity risk. This model's main disadvantages are that the transaction not for smaller project, projects less than R150mil, transaction cost are high and public sector bears equity risk.
- Build-Own-Operate (BOO)
  This is a similar structure to BOOT (below), but the facility is not transferred to the public sector partner. A BOO transaction may qualify for tax exempt status and is often used for water treatment or power plants. The public sector does not acquire the asset.
- Build-Own-Operate-Transfer (BOOT)
  The private sector builds and owns the facility for the duration of the contract, with the primary goal of recouping construction costs (and more) during the operational phase. At the end of the contract the facility is handed back to the government. This structure is suitable when the government has a large infrastructure financing gap as the equity and commercial risk stays with the private sector for the length of the contract. This model is often used for school and hospital contracts. These projects are only successful if the necessary finances are raised and if substantial revenues are generated during the operations phase.
- Design-Build
  The contract is awarded to a private partner to both design and build a facility or a piece of infrastructure that delivers the performance specification in the PPP contract. This type of partnership can reduce time, save money, provide stronger guarantees (as the work is with a single entity rather than a consortium) and allocate additional project risk to the private sector. However, the private sector does not then operate the facility.
- Design-Build-Finance
  The private sector constructs an asset and finances the capital cost during the construction period only. It does not operate the facility and or maintain the facility.
    - Design – Build – Finance – Operate (DBFO)
    - Design – Build – Finance – Maintain (DBFM)
    - Design – Build – Finance – Maintain – Operate (DBMFO)
      Similar to BOOT, DBFO (and its variations) is more used in the UK for PFI (Private Finance Initiative) projects. The private sector designs, builds, finances, operates an asset, then leases or sells it back to the government, typically over a 25 – 30-year period. Public sector long-term risk is reduced and the regular payments make it an attractive option to the private sector. However, once the asset is constructed, government purchases/ lease the facility back from the private sector. The major risk is that the public sector then takes all ownership risk after the purchase.
- Design – Construct – Maintain – Finance (DCMF)
  The private entity creates the facility based on specifications from the government body and leases it back to them. This is generally the convention for PPP prison projects. Again, government takes ownership risk and must have operational capacity to manage the facility.
- O & M (Operation & Maintenance)
  In an O&M contract, a private operator operates and maintains the asset for the public partner, usually to an agreed level with specified obligations. The work is often sub-contracted to specialist maintenance companies. The payment for this contract is either via a fixed fee, where a lump sum is given to the private

partner, or more commonly a performance-based fee. In this situation, performance is incentivized using a pain share / gain share mechanism, which rewards the private partner for over-performance (according to the agreed SLAs) or induces a penalty payment for work which has fallen short. This is based on an existing asset and does not involve construction.

The model identified by the council resolution based on section 78(3) was that of a Build Own Operate Transfer (BOOT), The benefits of this model were identified as follows for the municipality as described in section 78(3) report:

- The Municipality does not have the finances to build the facility, while the private sector does;
- The BOOT system is widely used in SA and encourages private investment;
- It has the potential to inject new foreign capital to the country;
- With this model and the concession ownership, there is ample time to transfer skills and know-how;
- Will allow for a faster construction and procurement phase;
- This type of system allows for financial sources from the municipality to be allocated to other priority projects;
- Releasing the burden on public budget for infrastructure development.
- A private company has the technical expertise and resources to manage and maintain such a project while training municipal staff.
- The financial, equity and operational risks are transferred to the private sector.

2.3 Budget

2.3.1 Provision of parking in the CITP and Municipal Budget

The CITP for the period 2016-2020 included two parking projects, one for the CBD and the at-grade facility at the Techno Park. These two projects (TR042 and TR044) provided for a total cost of R120 million for both parking facilities.

In contrast, however, the reviewed Stellenbosch CITP for the period 2022-2026 excludes any financial provision for a substantial parking facility. The focus of the Municipality has shifted to a PPP process to address the need for parking in the CBD, specifically the Eikestad parking facility. The development of this parking area will also allow for the reduction of on-street parking areas making certain streets in the CBD more pedestrian and parking friendly. The 2022 CITP provides for two small parking area upgrades in Franschhoek (R700 000) and Stellenbosch (R800 000) for the 2022/23 year. Both facilities to be funded through developer charges.

2.3.2 Estimated Facility Capital Cost

The estimated facilities cost (exclusive of VAT) of the Eikestad Parking Facility is estimated as follows:

- Estimated construction cost: R99 439 000.00
- Smart Parking System R1 999 141.00
- Fibre Infrastructure R5 000.00

2.3.3 Estimated Facility Operational and Maintenance Cost

The operational costs associated with the Eikestad Parking Facility have been estimated at R1 246 000 per annum at 2023 levels. The maintenance costs (operational maintenance, aesthetic maintenance and structural maintenance have been estimated at R464 500.00 per annum at 2023 costs

2.4 Institutional Environment

2.4.1 Section 78

The findings in section 78(1) found from the high-level investigation regarding the institutional environment that is required to operate the facility. Based on the needs of this facility, the positions required to manage a parking garage and the functions associated for a multi-level parking garage. The staff requirements have a need of between +-20-30 Employees. The next section investigates the internal capacity of the municipality to accommodate the staff requirements should the Municipality operate the Eikestad Parking facility and when following the PPP route.

2.4.1.1 Internal Capacity analysis

The section 78(1) estimated that the municipality would need to employ between 35-40 staff to properly manage the parking facilities. The municipality as indicated in the section 78(1) report that the municipality does not have the ability to increase the staff capacity to accommodate this function.

In accordance with the section 78(1) reports stated that, "Section 78(1)(a)(iii) states that a municipality "must first assess the extent to which the re-organisation of its administration and the development of the human resource capacity within that administration as provided for in sections 51 and 68, respectively, could be utilised to provide a service through an internal mechanism mentioned in section 76(a)"

Section 51(g)(i) states that "a municipality must within its administrative and financial capacity establish and organise its administration in a manner that would enable the municipality to perform its functions through operationally effective and appropriate administrative units and mechanisms, including departments and other functional or business units."

Section 68(1) states that "a municipality must develop its human resource capacity to a level that enables it to perform its functions and exercise its powers in an economical, effective, efficient and accountable way…""

The municipality has a vacancy of 856 positions or nearly 43%. This indicates that the other functions do not have the current capacity to re-organise staff to a parking service function.

Based on the above, the municipality will require an external partner.

For a possible PPP project to comply with the Treasury Regulations, a Project Officer will be appointed. The roles and responsibilities of the Project Officer cover the whole PPP project cycle. Broadly, the Project Officer will:

- manage the planning, procurement and implementation of the Project on behalf of Stellenbosch Municipality, exercising delegated authority; and
- direct and manage the work of the Advisory Team and approve payments in terms of the Mandate Agreement entered into between Stellenbosch Municipality and the Transaction Advisor.

The detailed skills and competencies required of the Project Officer in order to successfully execute his role are detailed in the PPP manual.

For Stellenbosch Municipality to successfully engage in the process of providing secure, safe and additional public parking, the Project Officer relies on the support of other municipal staff members with expertise in specific areas. The Stellenbosch Municipality Project team should be multi-functional. In addition to permanent team members of the PSC (Project Steering Committee), other specialist team members are included on an ad-hoc basis. This ensures that the expertise can be utilized in a focused manner when required within the parameters of the Project.

The following criteria were considered in structuring the Stellenbosch Municipal Project team:

- A knowledgeable, focused and committed team is a strong promoter for a successful PPP; and
- The team members have all been specifically appointed and have been given a job and role description for the Project. The table below provides an indication of the core team members on the project and needs to be completed by the municipality before final submission to National Treasury for Treasury Approval I (TA I).

Table 2-2: Department Project team members

Team Member	Key Functions	Mun Team member
Financial	• Assisting with extraction of costs from Department and DPW budgets required by the Advisory Team • Input into the construction of the Financial Model • Participate in the establishment of bid criteria • Evaluation of the bids received against the bid criteria • Participation in the negotiation process in order to ensure optimal financial structuring for the Mun • Provide in input into the Financial Model once the Project is in the implementation phase.	To be appointed
Human Resources & Labor Relations	• To provide an understanding of the current Human Resources policies and processes within Stellenbosch Municipality • To identify and co-ordinate future establishment needs • To assist with gathering staff related information such as post descriptions, space needs and operating requirements • Ensure the organization is able to deliver services in light of any changes as a result of the PPP implementation • Providing inputs into the HR consequences of outsourcing of non-core services • Managing the following possible scenarios: • Changes in staff circumstances • Managerial resistance • Staff uncertainty • Advise on engagement with trade unions • Ensuring, as far as possible, consensus with unions around labour relations issues • Participation in the establishment of bid criteria • Evaluation of the bids received against the bid criteria	To be appointed
Legal	• To assist with negotiations and review the Transaction Advisor appointment	Services

Team Member	Key Functions	Mun Team member
	• To advise the Advisory Team of Stellenbosch Municipality legal obligations and existing contracts. • To participate in the Advisory Team's legal Due Diligence • Participation in the establishment of bid criteria • Assisting to ensure compliance with the legal elements of the procurement agreements • Participation in the drafting of appropriate procurement documentation • Evaluation of the bids received against the bid criteria • To actively participate in the negotiations with the Preferred Bidder prior to Financial Close • Legal advice to Stellenbosch Municipality on issues relating to the Project	
Technical: Facilities Management & Organizational Development	• To provide an understanding of the current facilities occupied by Stellenbosch Municipality • To identify and co-ordinate future needs • To identify and assist with the compilation of existing costs and expenses relating to services procured whether from Government departments or the private sector. • To assist with gathering staff related information such as post descriptions, space needs and operating requirements • Providing inputs into possible outsourcing of non-core services • Provide inputs around present Department assets • Participation in determination of the Output Specifications • Participation in the establishment of the bid criteria • Participation in the evaluation of the bids received against the bid criteria • To actively participate in the negotiations with the Preferred Bidder prior to Financial Close	To be appointed
ICT	• To co-ordinate the ICT inputs into the Project • Establish a suitable electronic communications environment	To be appointed

Team Member	Key Functions	Mun Team member
	• Ensure that all external IT stakeholders are kept informed of progress • Ensure the safety of the information contained on the IT system (link with the security specialist deliverable) • Provide inputs into the ICT output specification • Participation in establishment of the bid criteria • Participation in the evaluation of the bids received against the bid criteria • Provide inputs into the possible outsourcing of non-core services	
Communications	• To identify various stakeholders and develop an internal and external communication plan to disseminate information throughout the organization and externally. • To assist with media enquiries and to formulate appropriate responses	To be appointed

2.4.1.2 Project Office

As Stellenbosch consists of various directorates/ business units, a Project Office, through the Project Officer will co-ordinate the input from Stellenbosch Municipality with regard to aspects of the Project. This interaction and co-ordination entails:

- managing deadlines to ensure that the timelines of the Project Plan are met;
- managing the service provider to ensure the progress of the Project;
- liaising between the stakeholders and the service provider;
- highlighting “red-flags” as and when they arise;
- troubleshooting and providing ongoing solutions; and
- reviewing the reasonableness of the risk allocation and the managing of the risks inherent in the Project.

Beyond this, the Project Office must also:

- Ensure that capacity is created within Stellenbosch Municipality, through a skills transfer initiative. In this way, for example, Stellenbosch Municipality facility management personnel should develop the capabilities to take over from the facility management specialists at some point. Capacity can be built in other ways and consideration should be given to the potential areas for skills development.
- Build institutional memory - over the life of the concession the nature of the members within the Project Office will change, however, there needs to be some continuity. A knowledge management system has been created so that new advisors and Stellenbosch Municipality staff members are aware of the history of the Project.
- Engage with employees and provide them with on-going information about the process underway. This will create a sense of ownership and excitement amongst Stellenbosch Municipality employees. This type of communication will also raise the level of awareness about the PPP within Stellenbosch Municipality and relieve any misplaced anxieties.
- The Project is completed on time, within budget and to a standard expected by National Treasury.

2.4.1.3 Transaction Advisor

A transaction advisor was appointed.

2.4.1.4 Stakeholder Engagement for a PPP

The diagram below depicts the relationship between the Project Office and other stakeholders.

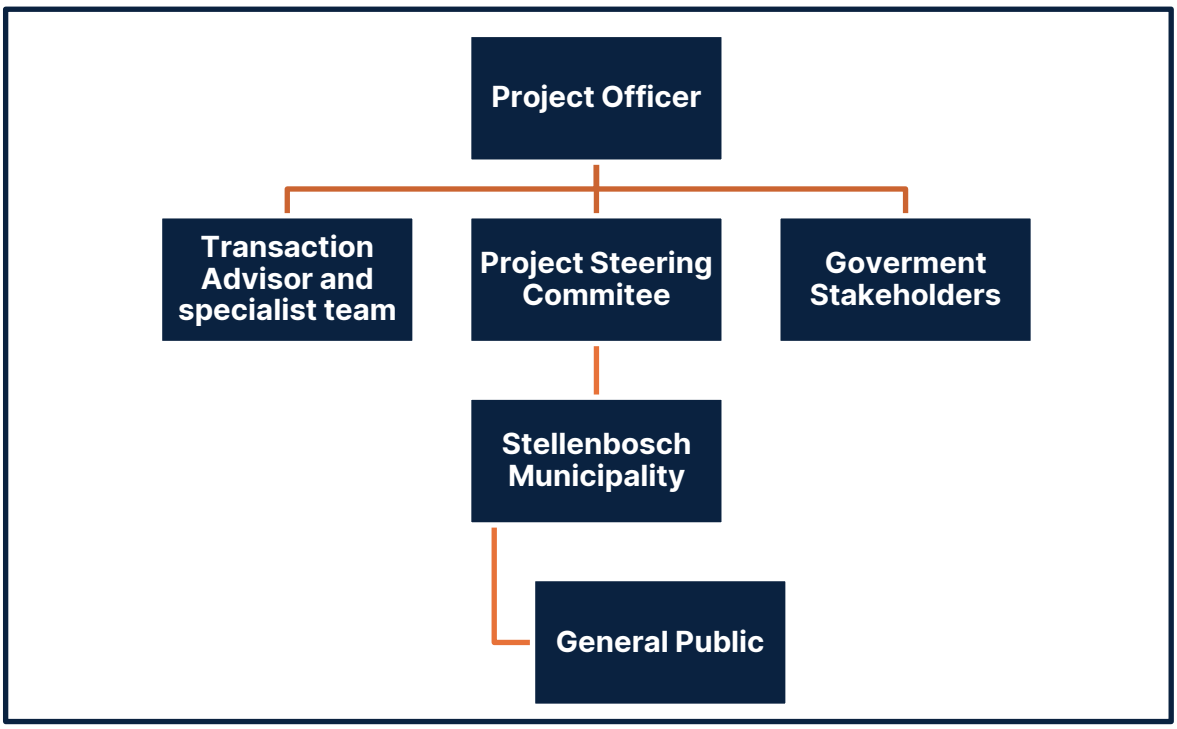


Figure 2-3: Interaction between the Project Office and other stakeholders

The Project Officer acts as the chair of the PSC. This committee acts as the interface between Stellenbosch Municipality, the Advisory Team and other Government stakeholders and the PPP Unit.

A number of different stakeholders have been identified, which may have a role to play in either the Feasibility Study phase or the procurement phase of the Project:

- Stellenbosch Municipality management and staff;
- Stellenbosch Municipality residents;
- Government representatives who will manage the transaction from a public sector perspective (Project Office);
- Service provider who will manage the transaction from the private sector perspective;
- Technical - or specialist team members and advisors from the public - or private sector (Project Office support);
- Advisors to the public sector on procurement processes (Advisory Team);
- External advisors from other Government departments on specialist areas such as PPP processes, security and ICT (i.e. the PPP Unit, NIA, SAPS, SITA);
- National, provincial and local government institutions as the relevant authorities in respect of certain Project approval processes, i.e. township establishment, environmental, heritage (Stellenbosch Municipality, DEAT and GDACE, SAHRA and GHRA);
- Partner in BBBEE financing instrument (DBSA);
- Regulatory authority relating to public finance management (National Treasury);
- Organized labour; and
- The general public, perhaps in the role as interested and affected parties in terms of any environmental and heritage processes.

A key success factor in the procurement of the Project is managing the interaction between these role players and ensuring proactive responses and decision-making. It is evident above that the Project Officer plays an integral interface role between the PSC, the Project Office and other stakeholders. In the preparation for the Project, the involvement and advice of National Treasury remains important to ensure the success of the Project.

The National Treasury plays a key role from a regulatory perspective in all financial and regulatory matters relating to Government and, in particular, any project procured by way of a PPP in terms of Regulation 16.

The interaction with the National Treasury official ensures that the PPP Unit is fully informed on progress on the Project, especially budgetary and Affordability issues and that National Treasury is providing oversight to ensure adherence to the PFMA, without compromising the regulatory authority of National Treasury in respect of the Project.

2.4.2 Job Creation

The proposed project will create approximately 20-30 jobs in the operational phase and approximately 300 jobs during the construction phase for local labour. Moreover, post construction, in accordance with the economic analysis, the facility could create 0.61 jobs per R1million rand investment in the in the facility.

2.4.3 Environment Improvements

The Environmental Partnership was commissioned to undertake an Environmental Scoping exercise for the proposed Eikestad parking structure development on behalf of SMEC, as part of the parking study for the Stellenbosch Municipality.

The scoping exercise assesses the environmental and sustainability aspects of a proposed facility on this particular site, due to it being considered as the best location from a technical perspective. The objective of the scoping assessment is to provide critical insights for informed decision-making relating to environmental and heritage sustainability aspects for a parking facility on the Eikestad site.

The development site is situated in Stellenbosch, bounded by Andringa, Victoria, van Ryneveld, and Plein Streets. The Municipality aims to maximise parking with structured facilities including direct access from Victoria & Ryneveld Streets and pedestrian access from Eikestad Mall whilst integrating the existing heritage context of the wider area. The forecourt and lower-level street facade will connect with surrounding historical buildings.

The site currently serves as an open parking lot, attracting various users, including shoppers, cultural visitors, and students. The historical significance is linked to the old Drooge Rivier stream previously located on the site, influencing townscape/streetscape and potential archaeological impacts. The history and cultural value of the site is largely integrated with the historic development of Stellenbosch.

The Scoping assessment considers various environmental components and mitigation measures should be applied as necessary to minimise adverse impacts. Key Environmental Considerations includes the following:

Biodiversity and Ecological Systems -The site's urban location minimises impacts on local indigenous flora and fauna, habitats, endangered species, and ecosystems.

Water Resources - Absence of watercourses or wetlands near the site results in no identified impacts on surface water bodies or water quality.

Air Quality - The proposed development is expected to cause no emissions or air pollution, potentially indirectly reducing harmful CO2 gases due to optimised parking.

Land Use and Vegetation - No significant impacts on land use or vegetation cover are foreseen, but a tree survey is recommended to address the loss of existing trees in the parking area.

Cultural Heritage and Archaeological Sites - Heritage and Cultural Specialists identify potential impacts on townscape, streetscape, and visual aspects, considering the historical significance of the site.

Noise and Vibration - Potential negative impacts on noise and vibration are noted during the construction phase but diminish during the operational phase.

Social Aspects - Consideration of social factors, including the project's impact on local communities, public health, and well-being, underscores the need for a recommended public participation process.

Visual and Aesthetic Impacts - Adherence to strict architectural design parameters approved by Heritage Western Cape is crucial to preserve visual aesthetics.

Waste and Hazardous Materials - Examination reveals negligible potential impacts associated with waste generation, disposal practices, and hazardous materials.

Climate Change - Sustainable green building design practices are recommended to mitigate potential negative impacts on climate change.

Energy Use and Efficiency - The proposed design must incorporate mechanisms for efficient energy consumption and renewable energy integration.

The assessment findings furthermore outline the relevant environmental legislation and demonstrates the development's alignment with it. Of significance is the legal and regulatory compliance to the National Heritage Resources Act (NHRA) (Act No 25 of 1999), as amended.

The selected site for this development is situated within a culturally and historically significant landscape and comprises 18 separate erven (as well as requiring access across two different erven), and in combination the area of the site is 18 651,2 m2. The development of this open site into one that has a structure thereon will constitute a “change in character”, thereby triggering Section 38 (1) (c) (i) of the National Heritage Resources Act.

The key heritage-related possible impacts will be townscape/streetscape, as well as visual impacts from an urban design and townscape perspective. The site was the location of the old Drooge Rivier stream and so archaeological impacts are possible.

Accordingly, the proposed project should aim to seamlessly integrate with the surrounding cultural and heritage landscape by adhering to stringent architectural design guidelines and parameters, as duly approved by Heritage Western Cape (HWC).

A Notice of Intent to Develop (NID) has been prepared by the Heritage specialist which concludes that there is reason to believe the proposed development will impact on heritage, and therefore a Heritage Impact Assessment

(HIA) will be required. The NID; HIA and additional studies must be submitted to HWC for endorsement and subsequent approval.

Adherence to environmental legislation, including the Environmental Impact Assessment Regulations, National Environmental Management Act, Biodiversity Act, National Water Act, Air Quality Act, and Waste Act was considered. It was found that no activities requiring environmental authorisation under the Environmental Impact Assessment Regulations will be triggered. Similarly, no water use activities requiring a water use licence under the National Water Act will be triggered.

The proposed Eikestad development aligns with legislative guidelines, showcasing a commitment to responsible development and environmental stewardship. Collaboration with regulatory bodies, public participation, and adherence to heritage guidelines are pivotal aspects of the project's holistic approach to sustainable and compliant development.

2.4.4 Geotechnical Investigation

2.4.4.1 Background

A geotechnical investigation is required as part of the design process, and this draft report comprises a desktop study for the geotechnical aspects of this project.

This desktop report would serve as part of the background information of the geotechnical investigation report. The geotechnical investigation report will be updated with investigation data, laboratory test results, analysis and recommendations.

This geotechnical desktop study aims to determine the anticipated geotechnical characteristics of the in-situ soils and rock, as well as boundary conditions and potential fatal flaws as far as the desktop investigation level will permit. This study provides a baseline understanding for planning of further investigations and baseline design consideration. The tasks required to fulfil this objective are as follows:

- Assess the current on-site conditions;
- Review the potential geotechnical conditions from available sources;
- Reveal the variability of the in-situ soil and rock profiles;
- Reveal any risks or challenges to geotechnical investigation;
- Reveal potential fatal flaws to the specific site location for the intended purposes; and,
- Comment on the geotechnical feasibility of the proposed development.

The following standard practice codes and guideline documents in performing this study:

- Site Investigation Code of Practice, 1st Edition, South African Institute of Civil Engineering – Geotechnical Division, January 2010; and,
- Basis of structural design and actions for buildings and industrial buildings. Part 5: Basis for geotechnical design and actions. SANS 10160-5 (2010).

2.4.4.2 Site Assessment Results

Observations

A site visit was conducted on Thursday, 26 October 2023. The objective of the site visit was to conduct a site walk-over of the project area with a view of assessing the current conditions and providing an accurate scope for the required geotechnical investigation.

The following observations were made during the site walkover:

- The site is flat terrain with a slight gentle gradient to the west;
- There is an existing paved open parking lot with a few small buildings;
- The boundary of the parking lot is surrounded by existing buildings on three of the four sides, with the Andringa Street separating site from the Eikestad Shopping Mall;
- Consideration to building stability and potential foundation movements will need to be given for the existing buildings depending on the proximity to the boundary of the basement level.

- Underground services were indicated by a number of man-hole covers (11 no. in total) identified on site.

They were not inspected thus the type of underground service(s) are unknown. However, wayleave applications and communications with service providers have revealed a number of different services in the proposed site footprint. As of writing this desktop study, the following services have been indicated: electrical cabling, stormwater pipelines, water pipeline (possibly for irrigation), and sewerage. The electrical cabling runs east to west in the southern half of site with a branch going south off site. These cables run just north of an electrical substation that is managed by the municipality. The stormwater pipeline has multiple branches and runs across the site. The water pipeline was a single line and enters from the east. It is potentially for irrigation as the line ends abruptly in the centre of the parking lot. The sewerage pipeline is relatively short and runs between two small buildings with a connection running west under Andringa Street. These two buildings are understood to be two public toilets that have been decommissioned and disused. No overhead electrical lines were observed but street/parking lights present would require underground cabling.

Anticipated Geotechnical Conditions

Given the previous investigations and the reviewed regional information, the following geological profile is anticipated:

- 0.6 m (±0.4 m): Medium dense, fine sand (Transported/Fill)
- m (±0.6 m): Medium dense, boulders and cobbles in sand matrix progressing to clay matrix (Alluvium)
- 4.0 m (±1.0 m): Firm to stiff, clay. (Residual Phyllite)
- Below 4.0 m (±1.0 m): Very soft phyllite rock, occasionally recovered as dense gravel. (Phyllite)

Based on NGA data and previous investigations, groundwater/ perched water table is anticipated from a depth of 1.5 below EGL within the alluvial layer of boulders and cobbles.

Findings

This geotechnical study report highlights the anticipated geological and subsequent ground conditions, as well as boundary conditions and potential fatal flaws as far as the investigation level will permit.

The regional topography is flat with an overall very gentle gradient to the west. Climate data indicate that the area receives most rainfall between June and August during the cold winter months, with the summers dry and hot, especially over December to February. The seismicity study indicated a minimum PGA of 0.15g to be taken into consideration for design purposes.

Conceptually, the site is anticipated to be underlain by alluvial gravels and boulders of the quaternary sediments which in turn is underlain by the phyllite and greywacke of the Tygerberg Formation of the Malmesbury Group. Historical investigations in the vicinity of the site within the same geological zonation revealed the anticipated geological profile below:

- 0.6 m (±0.4 m): Medium dense, fine sand (Transported/Fill)
- m (±0.6 m): Medium dense, boulders and cobbles in sand matrix progressing to clay matrix (Alluvium)
- 4.0 m (±1.0 m): Firm to stiff, clay. (Residual Phyllite)
- Below 4.0 m (±1.0 m): Very soft phyllite rock, occasionally recovered as dense gravel. (Phyllite)

Based on the previous studies and NGA data, a perched ground water table is anticipated from 1.5 m below EGL within the alluvial deposits.

A site visit was conducted to assess the conditions across the site and geotechnical risks. The physical assessment of site conditions would help to firstly confirm elements of the desktop study findings but also to provide an accurate scope and specifications for the required geotechnical investigation. The scope and specification have been submitted previously for approval by Client.

The observations made during the site visit align with the elements of the desktop study findings, that is, general topography and indications of the potential underground services. Due to the paved and highly developed nature of the area, no natural ground was exposed to assess the geology but previous investigations in the area were drawn upon. A number of manhole covers were observed on site and the wayleave applications, and subsequent communications, have revealed existing underground services in the proposed site footprint including, but not

limited to, electrical cabling, stormwater pipes, water pipe and disused sewerage line. Linked to these services is an electrical substation to the south of site and two small disused toilets to the west of site. There were also indications of telecommunication infrastructure running through the parking lot, but this has not been confirmed with the service provider as of writing this study.

It is important to note that all wayleave applications need to be completed and a ground penetrating (GPR) survey will need to be conducted prior to any intrusive investigations carried out. This is to ensure the safety of the contractors as well as the cost and time implications of damaging any underground services. The site has easy accessibility for investigation works and construction works, however appropriate plans will need to be arranged to block off sections of the whole of the parking lot so that pedestrians and cars are not in the way.

Recommendations

Based on the findings presented above, SMEC is of the view that the proposed parking facility project is feasible and from a geotechnical point of view, the project can be progressed to the geotechnical investigation stage. Cognisance must however be given to the risks identified in this study that have an impact on both the geotechnical investigations and the design and construction of the parking infrastructure.

The risk of striking underground services must be highlighted for the intrusive investigation works due to the variety of services present. However, the investigation can be accommodated within the site plan indicating the location of the underground services.

SMEC has previously submitted a scope and specifications document detailing the geotechnical works required and recommended that the geotechnical investigations be conducted based on the quantum of work and specifications contained in this document. In summary, the following scope of work is recommended:

- A ground penetrating radar (GPR) survey of the area to confirm the location of buried services;
- no. rotary cored boreholes to 12 m below EGL;
- Installation of piezometer standpipes for groundwater level monitoring;
- A Competent Engineering Geologist or Geotechnical Engineer on site to supervise investigation works and profile the boreholes according to the SIACE Guidelines of Soil and Rock Logging (2002); and,
- Laboratory testing of samples obtained from boreholes.

Note rotary core boreholes are favoured over other methods of investigation, such as depp trial pits excavated by 20 t excavator. The reasons for this include, inter alia:

- Boreholes will offer more information on the soil horizons at depth as well as the opportunity to monitor the long-term groundwater profile. This information is pertinent to the design of basement levels and deep foundations, as well as to the design of the building's waterproofing/ damp-proofing measures and to managing uncertainty during construction;
- Boreholes will also create less disturbance (and more localised) than test pits. This means the parking facility can be returned to normal operation with minimal rehabilitation of the pavement layers being necessary.
- Boreholes can also be located more strategically to avoid the risk of striking buried services.

Notwithstanding, if Client's budget does not allow for rotary core drilling at this time the above scope may be adjusted, but note we deem this disadvantageous in so far as gaining the requisite information to manage the risk of deep foundations, basement levels and shallow groundwater relevant to this site.

2.4.5 Health and Safety

The proposed facilities will increase safety on the streets due to a reduction in circulating traffic and a reduction in traffic congestion. It will reduce drive frustrations, which will have a positive effect on motorists within the CBD by reducing reckless driving. Due to the increased parking space, various streets may be altered to pedestrian streets, which will increase safety in these highly dense pedestrian areas in the CBD by reducing the conflict between motorists and pedestrians. The proposed facilities will be access controlled and thus have appropriate security consequently allowing safe areas for people to park, which will increase the safety of both the motorists and vehicles.

2.5 BBBEE & socio-economic outcomes

2.5.1 Purpose

The needs of Stellenbosch Municipality have been developed taking into consideration the applicable legal framework and the existing socio-economic conditions, which exist surrounding the Project site. Thus, the needs were determined taking into account the following documents:

- Stellenbosch Municipality Supply Chain Management Policy, Appendix 17 2021-2022
- The Preferential Procurement Policy Framework Act, 2000;
- BBBEE Act, 2003;
- Public Private Partnership Manual, 2004 (the Manual);
- Stellenbosch Municipality Integrated Development Plan, 2016 to 2020 (the IDP);
- Stellenbosch Community Development Strategy 2014
- National Treasury Municipal Service Delivery and PPP Guidelines

2.5.2 General

The proposed projects are located in the Stellenbosch CBD and in Techno Park. The construction and management of the facility will have an impact on BBBEE in the municipal area through job creation and construction.

According to the code of good practice for BEE in PPP partnerships 2003;

“Government’s policy objectives for BEE in PPPs are as follows:

- To achieve meaningful and beneficial direct ownership of substantial equity interests in the Private Party to a PPP Agreement by black people, black women and black enterprises;
- To achieve effective participation in the management control of the Private Party and its sub-contractors by black people and black women;
- To ensure that a substantive proportion of the Private Party’s subcontracting and procurement is to black people, black women and black enterprises;
- To ensure effective employment equity and skills development in the Private Party and its sub-contractors throughout the PPP project;
- To promote positive local socio-economic impact from the project to the benefit of small and medium enterprises, the disabled, the youth, and nongovernment organisations within a targeted area of project operations;
- To create jobs; and
  For institutions of government to be represented in all PPP transactions by financial, legal and technical advisors who generally reflect South Africa’s diverse population, and to build the professional skills and number of black people and black enterprises in these fields.”

2.5.3 Legal Framework

2.5.3.1 PPPFA

Section 217(1) of the Constitution states that procurement by organs of states must occur within a system that is fair, equitable, transparent, competitive and cost-effective.

Section 217(2) of the Constitution provides that there should be an implementation of policies providing for categories of preference in the allocation of contracts and the protection or advancement of persons, or categories of persons disadvantaged by unfair discrimination. Section 217(3) of the Constitution further states that national legislation was to be enacted to prescribe a framework within which policies referred to in section 217(2) must be implemented. This national legislation referred to in section 217 of the Constitution is the PPPFA, which is discussed below.

Section 2(1) of the PPPFA provides that an organ of state must determine its preferential procurement policy and implement it within the framework prescribed by the PPPFA and Regulations thereto.

What must be noted from the PPPFA is that 90 points in the Project would have to be allocated to price and 10 points be allocated to specific goals (BBBEE).

Section 2(1)(e) of the PPPFA provides that any specific goal for which a point may be awarded, must be clearly specified in the invitation to submit a tender.

An organ of state is defined, in section 1 of the PPPFA, to include Stellenbosch Municipality.

Regulation 2 of the PPPFA Regulations, 2022 provides thatthe Regulations apply to organs of state, as defined in section 1 of the PPPFA.

Thus, the PPPFA is applicable to Stellenbosch Municipality and specifically directs an organ of state to have its preferential procurement policy and implement it within the framework of the PPPFA. Furthermore, the PPPFA requires that the specific goals be included in the tender documents.

The PPPFA currently places emphasis on equity ownership and the promotion of non-quantifiable Reconstruction and Development Programme ("RDP") goals, which include:

- promotion of South African owned enterprises;
- promotion of small, medium and micro enterprises;
- creation of new jobs;
- the promotion of enterprises located within a particular municipal area, region or province; and
- upliftment of communities through, inter alia, housing, transport, schools, infrastructure donations and charity organizations.

The PPPFA Regulations were amended in 2022, to ensure alignment between the PPPFA and the BBBEE Act (and Codes) and compliance with the judgement of the Supreme Court of Appeal finding the 2017 Regulations to be invalid.

2.5.3.2 BBBEE Act and the Department of Trade and Industry BBBEE Codes of Good Practice

Two of the main objects of the BBBEE Act are to empower the Minister to issue codes of good practice and to develop criteria for entering into partnerships with the private sector.

The Minister is empowered to issue codes of good practice on black economic empowerment by notice in the Gazette, in terms of section 9(1) of the BBBEE Act, in order to promote the purpose of the BBBEE Act.

The BBBEE Act, section 10 states that every organ of state and public entity must apply any relevant code of good practice issued in terms of the BBBEE Act. Section 10(2) provides that the Minister of Trade and Industry may exempt an organ of state from this requirement.

An organ of state is defined as, *inter alia*, a municipality, in terms of section 1 of the BBBEE Act (paragraph (b) of the definition).

It must be expressly stated that the Codes of Good Practice will be applied in all aspects of the procurement process as required by the BBBEE Act .

2.5.3.3 PPP Manual

The PPP Manual and in particular, the Municipal Service Delivery and PPP Guidelines published in 2015 must be taken into account. Module 2 of these Guidelines provides a *Code of Good Practice for BEE in Public-Private-Partnerships*. .

The Codes of Good Practice, which were finalized in 2007 and as such the PPP Code may be out of sync with the 2015 Guidelines. Construction Sector Code

In terms of the BBBEE Act, a sector code of good practice has the same status as the Codes of Good Practice.

Section 3 of the Construction Sector Code states that it is applicable to measured entities which conduct any construction-related activities and entities which derive their majority turnover from construction related activities.

This sector was taken into consideration in the development of the Project BBBEE Scorecard.

2.5.3.4 Property Sector Transformation Charter

In terms of section 12 of the BBBEE Act, a transformation charter is published for general information purposes only and is not binding on a particular sector, therefore, although the Property Sector Transformation Charter is not binding it is an indication of what the industry deems possible to be achieved in terms of BBBEE. This charter was taken into consideration in the development of the Project BBBEE Scorecard.

2.5.3.5 Conclusion on legal framework

There is scope for the applicable of BBBEE in the Project, within the 90/10 framework as stated in the PPPFA.

The Project BBBEE Scorecard was developed taking into account the various policy documents applicable in terms of BBBEE.

It must be repeated that the Codes of Good Practice will be applied in all aspects of the procurement process.

2.5.4 BBBEE needs for the Project

In each phase of the PPP project cycle BBBEE needs need to be mentioned. Below is a diagram from the code of good practice for BEE in PPP partnerships 2004 depicting the various requirements for PPP BEE involvement.

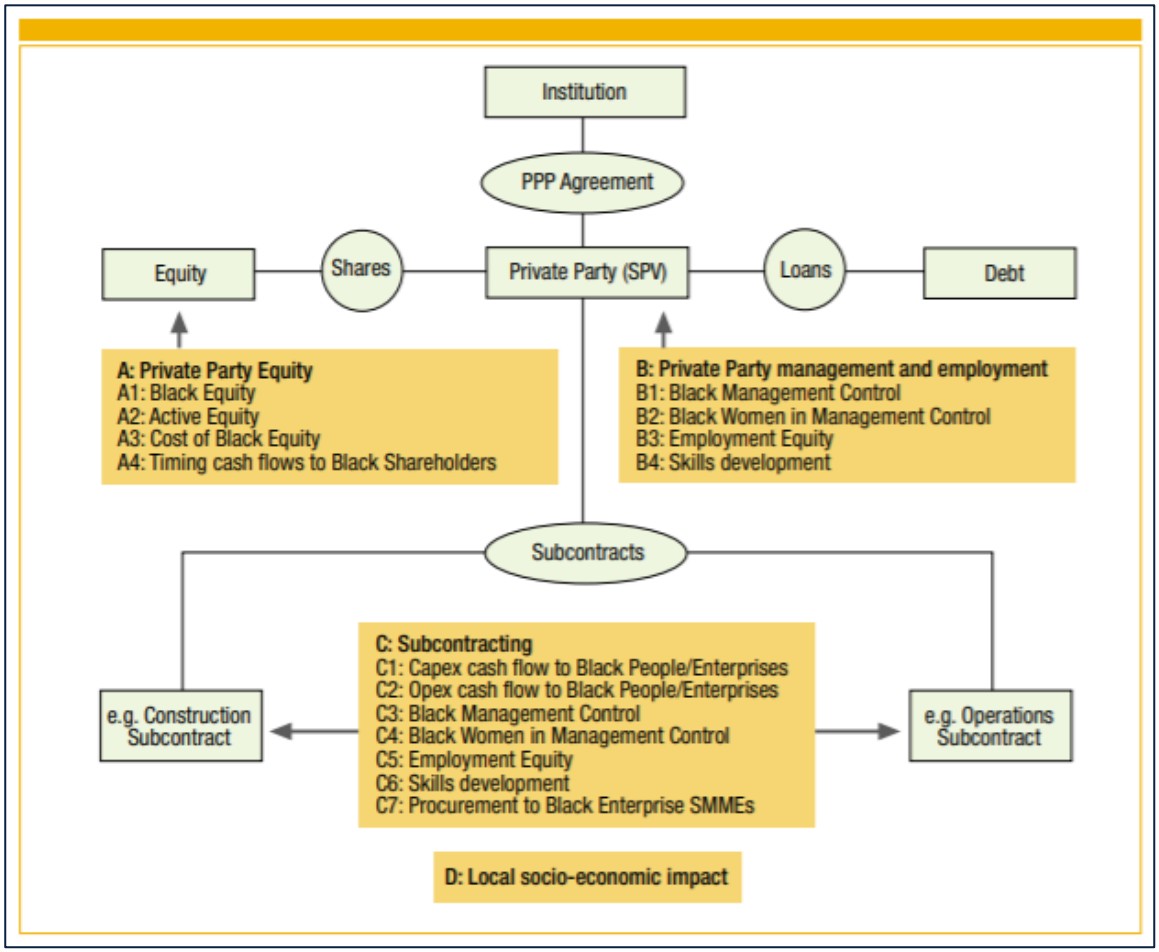


Figure 2-4: Extract, BEE in stages of PPP, Model 2, Code of Good Practice, 2004

How to apply BEE PPP policy at each phase of the PPP project cycle

In accordance with the 2003 Code of Good Practice, the PPP project cycle reflects the phases of a PPP prescribed by the MFMA PPP Regulations, including specific Treasury Approvals required therein. PPP BEE policy objectives will be pursued at every phase, namely:

- Appointment of a Transaction Advisor by the Institution;

Table 2-3: Extract, Transaction Advisor bid evaluation BEE elements, Source Code of Good Practice, 2004

	Transaction Advisor bid evaluation BEE elements	Maximum score	Scoring criteria	Weighting	Points total
1	The percentage of Black People playing leading professional roles in the Transaction Advisor consortium	5	25% – 35% = 3 >35% = 5	6	30
2	The percentage of black equity in the Transaction Advisor consortium	5	25% – 35% = 3 >35% = 5	6	30
3	A credible plan for structuring effective BEE for the PPP, with necessary skill and experience in the team	5	Poor plan, poor skill & experience = 1 or 2 Incomplete plan, limited skill & experience = 2 or 3 Credible plan, skill & experience = 4 or 5	4	20
4	A credible plan for skills transfer within the consortium to directly benefit black professionals inexperienced in PPPs (may specify targeting of Black People within a geographic area)	5	Poor plan = 1 or 2 Incomplete plan = 2 or 3 Credible plan = 4 or 5	4	20
	Total points				**100**
	Minimum threshold				**60**

- Feasibility Study for Treasury Approval I;

Table 2-4: Extract, Feasibility Phase BEE Tasks, source PPP Unit, National Treasury, 2004

Relevant stage of the Feasibility Study	Brief description	BEE feasibility phase task
Output specifications	To clearly identify what the Institution wants to deliver	Draw up a list of BEE outputs that the Institution wishes to achieve in the project, using the *PPP BEE Balanced Scorecard* as reference.
Solution options analysis	To identify the pros and cons of each option that can meet the Institution's needs and output specifications; to examine the risks, benefits and impacts for government of each; and to select a preferred option	Set out a preliminary view of the impact of each option on the intended BEE outputs, and identify the possible BEE outcomes of the preferred option.
Due diligence	To undertake a due diligence assessing all budgetary, institutional, legal, regulatory, site, BEE and other socio-economic factors that constrain and/or enable the project	Identify project-specific BEE sectoral conditions: Black Enterprise strength, implementation of sectoral BEE charters, local socio-economic factors that could be addressed in the project location, and any constraining factors to the achievement of the intended BEE outputs.
If the preferred option can be procured through a PPP, the Institution must then establish affordability, value for money and risk transfer. This entails constructing a PSC model, and a PPP reference model, both risk-adjusted.		
Risk identification	To identify all possible risks in the construction and operation of the project, the probability of each arising, the value of each risk, and strategies and costs of mitigation	Identify all possible BEE risks in the project, probabilities of each such risk arising, values for each, and the strategies for, and costs of mitigation.
Public sector comparator (PSC)	Life-cycle cost model of the output specifications where the public sector takes financing, construction and operating risks	Cost the achievement of the project's identified BEE outputs if it were procured conventionally, namely calculate preferential procurement as stipulated by the PPPFA's 90:10 formula price premium for procured goods and services, and include in the model.
PPP reference model	Life-cycle cost model of the same output specifications where the private sector takes substantial financing, construction and operating risk	Cost the achievement of the project's identified BEE outputs by calculating how the private sector would cost each of the BEE elements of a proposed *PPP BEE Balanced Scorecard for the project* in the PPP reference model.
Sensitivity analysis	To test the resilience of the models to changes in assumptions and risk over the project term	Test varying BEE targets for the project, their costs and their assumptions, to assess the impact on affordability and value for money.
Value-for-money test and making the procurement choice	To reach a justified conclusion analysing the outcomes of the modelling as to which procurement route is both affordable and will achieve optimal value for the Institution	Analyse which procurement route will best achieve the identified BEE outputs for the project.
If a PPP is the procurement choice, finalise the optimal **proposed *BEE Balanced Scorecard for the project***, with appropriate elements and targets.		
Economic analysis	To establish the economic rationale for the project, where required	Identify the economic benefits and opportunity cost to BEE of a 'no-project' scenario.

Table 2-5: Extract, Feasibility study considerations, source PPP Unit, National Treasury, 2004

PPP BEE element	Feasibility Study considerations
A: Private Party equity	**A:** Assess realistic targets by establishing: • Possible Black Equity participants • Extent, possible sources, and projected costs of Black Equity, impact of assumptions on affordability and value for money • Effect of phased increase in Black Equity on affordability and value for money • Effect on affordability and value for money of early cash flow to Black Shareholders • Impact of sectoral BEE charters.
A1: Black Equity	
A2: Active Equity	
A3: Cost of Black Equity	
A4: Timing of project cash flows to Black Shareholders	
B: Private Party management and employment	**B:** Assess targets in a sectoral analysis of: • Black management capacity • Black Women in management • Employment equity track record • Skills shortfalls, existing initiatives to address these, training opportunities • Sources and costs of possible support.
B1: Black Management Control	
B2: Black Women in Management Control	
B3: Employment Equity	
B4: Skills development	
C: Subcontracting	**C:** Assess realistic targets by establishing cost and risk implications of: • Number and capacity of existing Black Enterprises in the relevant sectors • Employment equity track record of enterprises in the relevant sectors • Range of Black Enterprise SMMEs in the market for procurement opportunities, and nature, sources and cost of support they may need.
C1: Capital expenditure cash flow to Black People and/or Black Enterprises	
C2: Operating expenditure cash flow to Black People and/or Black Enterprises	
C3: Black Management Control	
C4: Black Women in Management Control	
C5: Employment Equity	
C6: Skills development	
C7: Procurement to Black Enterprise SMMEs	
D: Local socio-economic impact	**D:** Cost all the local socio-economic targets and assess impact on project affordability, value for money and risk assumption.

- PPP procurement, including: bid documentation preparation for Treasury Approval IIA; PPP procurement and value-for-money report on the preferred bid, for Treasury Approval IIB; negotiations with the preferred bidder; and Treasury Approval III for the final terms of the PPP Agreement and the Institution's Contract Management Plan;
- RFQ stage: In order to Pre-qualify for the RFQ phase, the consortia should at least demonstrate:
    - *"that they have memoranda of understanding in place for the required targets of BEE participation in the Private Party and the first-tier sub-contracts;*
    - *that they have the ability to secure the targets of BEE management required for the Private Party and the first-tier sub-contracts;*
    - *that relevant members of the consortia have demonstrable track records in devising and implementing local socio-economic plans as part of their operations;*
    - *that the major sponsor companies have their own effective employment equity programmes in place and can demonstrate their own track record in BEE.",* PPP Unit, National Treasury, 2003
- Contract management for the term of the PPP Agreement. Detailed modules on each of these phases is provided in the National Treasury PPP Manual. Set out below is the approach to be adopted in each to ensure that PPP BEE policy objectives are appropriately achieved in every PPP project undertaken in terms of the PPP Regulations.

According to the PPP Unit, National Treasury Code of Good Practice, 2004 the PPP BEE elements of the bid are equated as follows:

Equation 1: Extract National Treasury, 2004, Bid overall score calculation

a* (technical score/100) + b* (BEE score/100) + c* (price score/100) = d
where:
a is the weighting for technical elements (between 50% and 70%)[21]
b is the weighting for BEE elements (10%)[22]
c is the weighting for price (between 20% and 40%)[23], and
d is the total score achieved by the bidder.

The document further identifies the recommended weighted bid evaluation for the BEE component of the document.

Table 2-6: Extract BEE PPP Code of Good Practice recommended weighted evolution of BEE, Source PPP Unit, National Treasury, 2003

a* (technical score/100) + b* (BEE score/100) + c* (price score/100) = d
where:
a is the weighting for technical elements (between 50% and 70%)[21]
b is the weighting for BEE elements (10%)[22]
c is the weighting for price (between 20% and 40%)[23], and
d is the total score achieved by the bidder.

PPP BEE element	Indicative PPP project target	Recommended bid evaluation weighting
A: Private Party equity		**20%**
A1: Black Equity	40%	
A2: Active Equity	55% of A1	
A3: Cost of Black Equity	Value for money	
A4: Timing of project cash flows to Black Shareholders	Early and ongoing	
B: Private Party management and employment		**15%**
B1: Black Management Control	Commensurate with A1 and A2	
B2: Black Women in Management Control	15% of B1	
B3: Employment Equity	Compliant with law	
B4: Skills Development	1% of payroll	
C: Subcontracting		**50%**
C1: Capital expenditure cash flow to Black People and/or Black Enterprises	30%	
C2: Operating expenditure cash flow to Black People and/or Black Enterprises	30%	
C3: Black Management Control	25%	
C4: Black Women in Management Control	15% of C3	
C5: Employment Equity	Compliant with law	
C6: Skills development	1% of payroll	
C7: Procurement to Black Enterprise SMMEs	30%	
D: Local socio-economic impact	Sustainable, effective plan	**15%**

2.5.4.1 Stellenbosch Municipal policy

In terms of Section 4.2 of the municipal policy, procurement undertaken by Stellenbosch Municipality is to be in line with the Preferential Procurement Policy Framework Act Regulations (PPPFA of 2017 or as amended from time to time) [they were replaced in 2022 as indicated above] and circulars.), which places an emphasis on ownership and the achievement of developmental goals, such as the advancement of emerging contractors.

In terms of the directive issued by National Treasury on April 18, 2007, accounting officers and authorities are required to apply the PPPFA as it stands until such PPPFA has been revised.

Thus, although the Stellenbosch Policy does speak to BBBEE, it is limited in its scope and it is necessary, for purposes of the Project, to include additional items to be considered for BBBEE purposes and to respond to the new 2022 PPPFA Regulations.

3 Parking Demand Analysis

3.1 Introduction

The aim of the parking demand analysis is firstly to assess the performance of the parking supply in the vicinity of Eikestad Mall (Stellenbosch CBD) and to identify the parking requirements. The main deliverable associated with this phase of the project is to determine the parking demand for the planned Eikestad parking facility and to determine the parking demand for revenue calculations.

3.2 Methodology

Taking into consideration the project deliverables, the following is recommended for the Public Private Partnership for Eikestad Parking Development Study:

- Analise parking survey data to determine the total parking demand as well as the following parameters for the sizing of the facility: peak time, parking accumulation, parking saturation, parking duration, peak parking ratio, parking turnover and parking index.
- Scenario testing with various factors that could influence the parking demand.
- Following the parking demand calculations, other factors will be taken into consideration to determine the effect on the parking demand.

3.3 Data collection

3.3.1 Inventory of Parking Facilities

A detailed parking inventory of all the existing public parking facilities in the study area was undertaken on 24 August 2020, where the following were recorded: parking area type, number of parking spaces per parking facility operating times and parking duration time limit, and parking fees and method of collection.

An updated inventory was undertaken on 3 October 2023 to record the operating times, parking duration time limit, parking fees and method of collection.

3.3.2 Parking Surveys

Parking surveys were undertaken in the study area from 06:00 to 18:00 between 15 and 19 September 2020 as well as between 22 and 24 April 2021, for the pre-feasibility study done in 2021 for a parking facility in the study area. The same parking surveys were undertaken for the *Public Private Partnership for Eikestad Parking Development* appointment between 18 and 20 May 2023 for the peak period and 11 and 15 July 2023 for the off-peak period.

3.3.3 Stated Preference Surveys

Stated preference surveys were undertaken in the study area from 06:00 to 18:00 between 15 and 19 September 2020, for the pre-feasibility study done in 2021 for a parking facility in Stellenbosch CBD. The same parking surveys were undertaken for the *Public Private Partnership for Eikestad Parking Development* appointment between 18 and 20 May 2023 for the peak period and 11 and 15 July 2023 for the off-peak period.

3.4 Existing Parking Supply / Demand

3.4.1 Inventory Analysis

The parking study for the planned Eikestad parking facility only includes the public parking facilities and illegal parking areas. The public parking facilities include on- and off-street parking, which can be classified as either free or paid parking.

Within the greater study area, a focus area was determined consisting of the parking areas for which the parking demand could realistically be assumed to make use of the planned Eikestad parking facility. This parking demand was then considered for further analysis.

Refer to Figure 3-1 for the parking areas in the study area. The black border indicates the focus area.

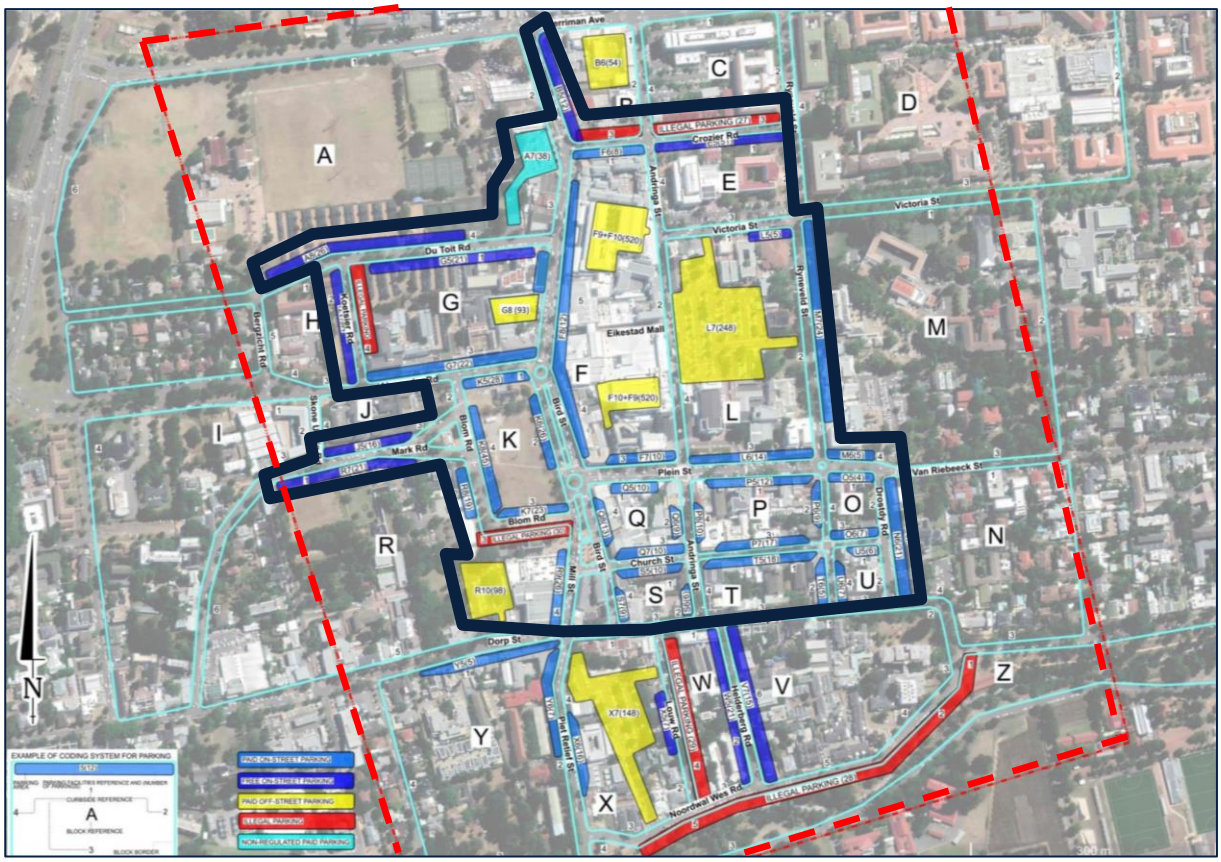


Figure 3-1: Study Area [Black border indicates the focus area (Excluding Underground parking areas F9, F10 and G8)]

3.4.2 Parking Accumulation Analysis

Parking accumulation is the number of vehicles parked in a specific area at any specified time. The parking accumulation against time, usable and system capacity are plotted on the same figure to compare the three (3) data sets. The usable capacity refers to the maximum level of accumulation that can be reached prior to negative consequences, particularly for first-time users. Such consequences can include excessive circulating traffic in an area to locate a parking space, causing traffic congestion. It is important to consider usable capacity when designing a system, in order to avoid circulating traffic. System capacity refers to the full capacity of the parking inventory.

Focus Area (excluding illegal parking)

The parking accumulation against time, usable and system capacity for all the parking areas in the focus area are illustrated in Figure 3-2 for the peak period and in Figure 3-3 for the off-peak period.

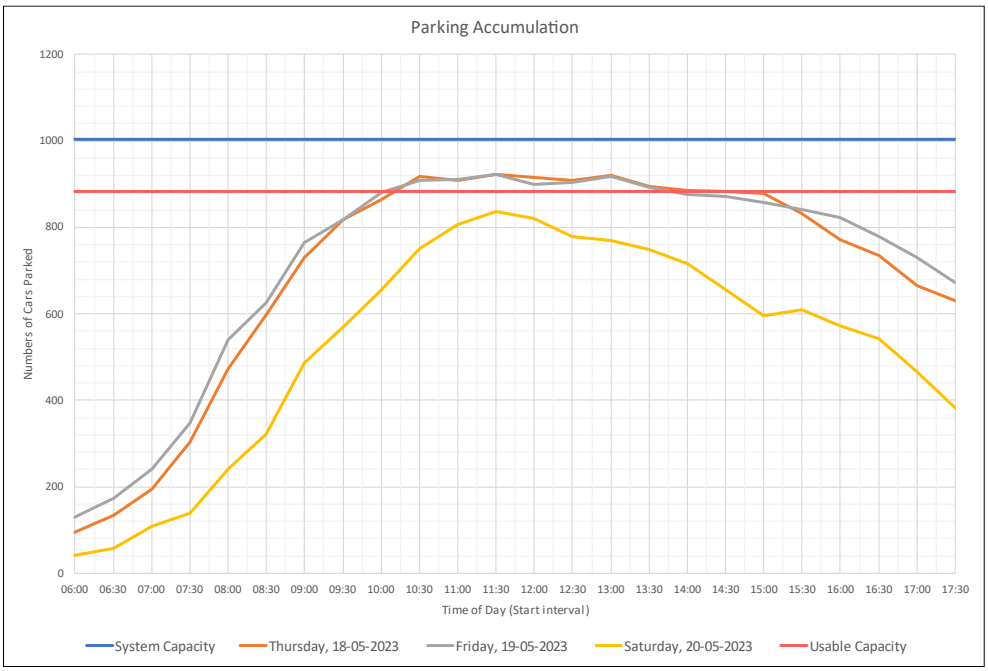


Figure 3-2: Peak Period Parking Accumulation – Usable and System Capacity (Focus Area)

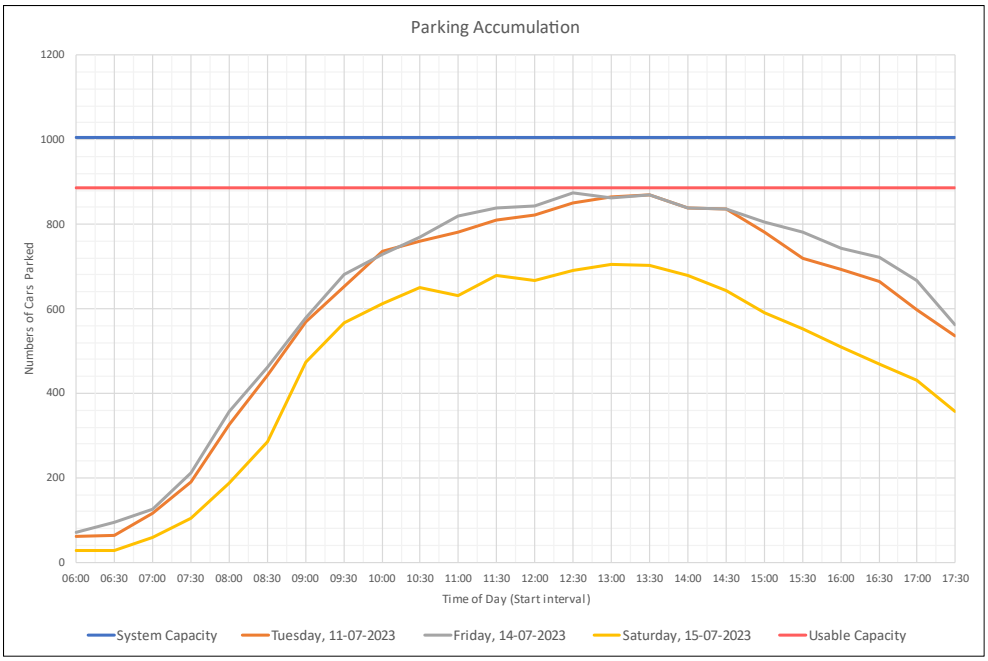


Figure 3-3: Off-peak Period Parking Accumulation – Usable and System Capacity (Focus Area)

From the above, an overall maximum peak parking saturation of 92% was observed during the peak period and 87% during the off-peak period. It can be seen that the demand for the focus area exceeded the maximum usable capacity (approximately 4 hours) during the weekday in the peak period. As a result of the overall parking demand for on-street free parking exceeding the maximum usable capacity, traffic circulation is expected.

Taking the above into consideration, the need for additional parking in the vicinity of Eikestad Mall is warranted during the peak period.

3.4.3 Stated Preference Survey Results

Stated preference survey data was processed for the peak and off-peak periods. The processed data was analysed for the following in more detail for the peak and off-peak periods:

- Main purpose of trips.
- Planned parking duration.
- Is the user willing to pay for parking and how much per hour.
- Reason why the user chose a specific parking area.
- Trip origin.

The results of the main purpose of trips and planned parking duration will be summarised in the Summary Report. The remaining three items are discussed in more detail in the Feasibility Study Report.

3.4.3.1 Main purpose of the trip

Information on the main purpose of trips to the study area was extracted from the stated preference survey data. Refer to Figure 3-4 and Figure 3-5 for the peak and off-peak period results.

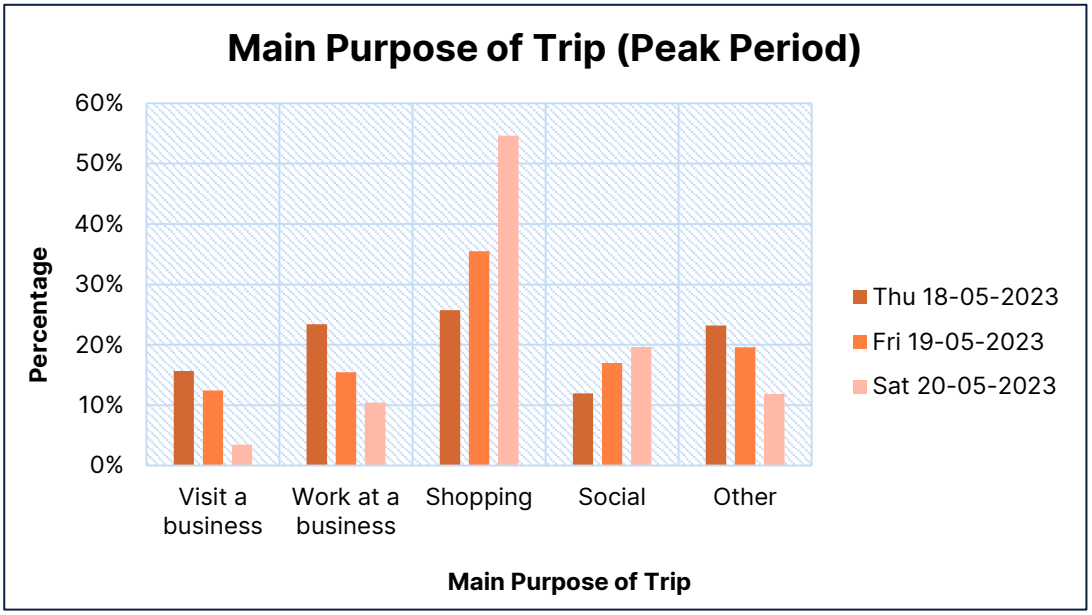


Figure 3-4: Main purpose of trips to the study area utilising the parking facilities: Peak Period

From the above, it was identified that majority of users utilised the parking facilities for shopping purposes on a typical weekday, Friday and Saturday during the peak period.

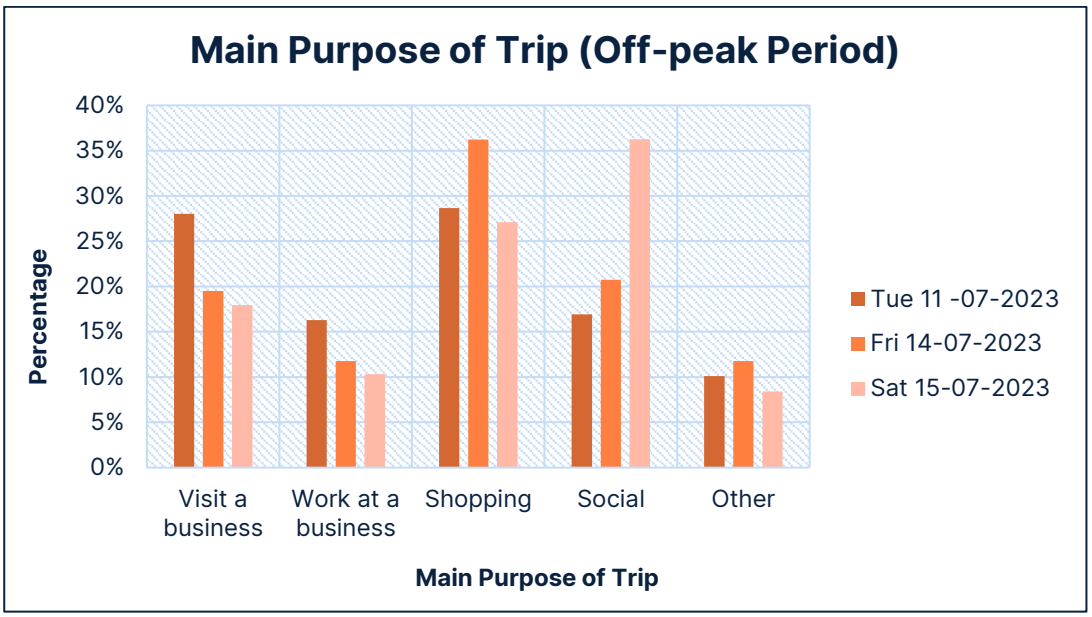


Figure 3-5: Main purpose of trips to the study area utilising the parking facilities: Off-peak Period

From the above, it was identified that majority of users utilised the parking facilities for shopping purposes on a typical weekday and Friday and for social purposes on a typical Saturday during the off-peak period.

3.4.3.2 Planned parking duration

Information on the planned parking duration was extracted from the stated preference survey data to evaluate the planned parking duration in the study area. Refer to Figure 3-6 and Figure 3-7 for the peak and off-peak period results.

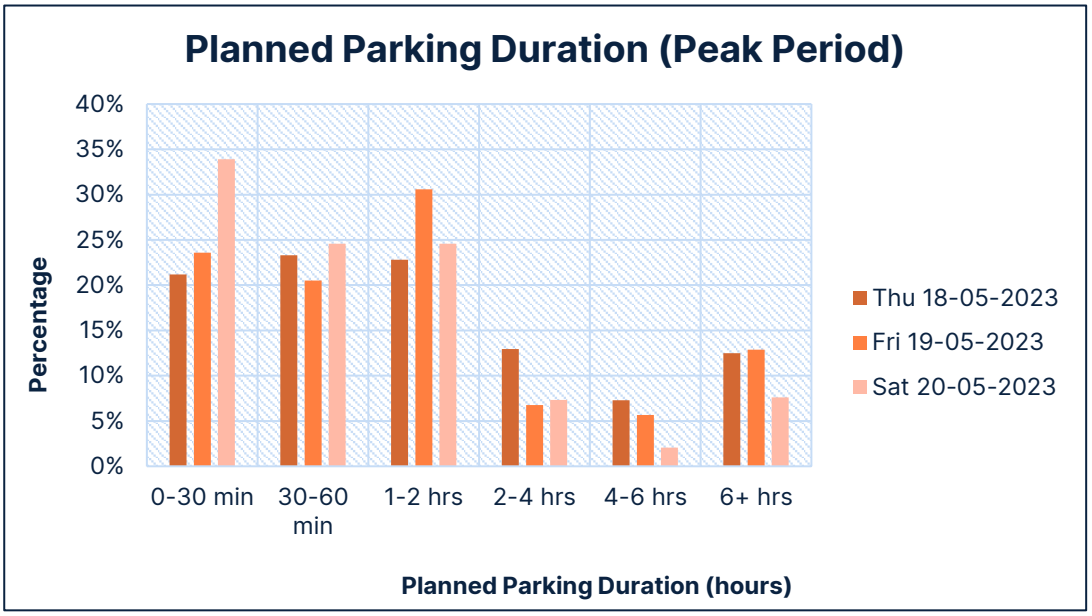


Figure 3-6: Planned parking duration in the study area: Peak Period

From the above, it was identified that majority of users planned to park for 0 – 2 hours on a typical weekday, Friday and Saturday during the peak period. It was also identified that short parking durations are much more favourable than longer parking durations.

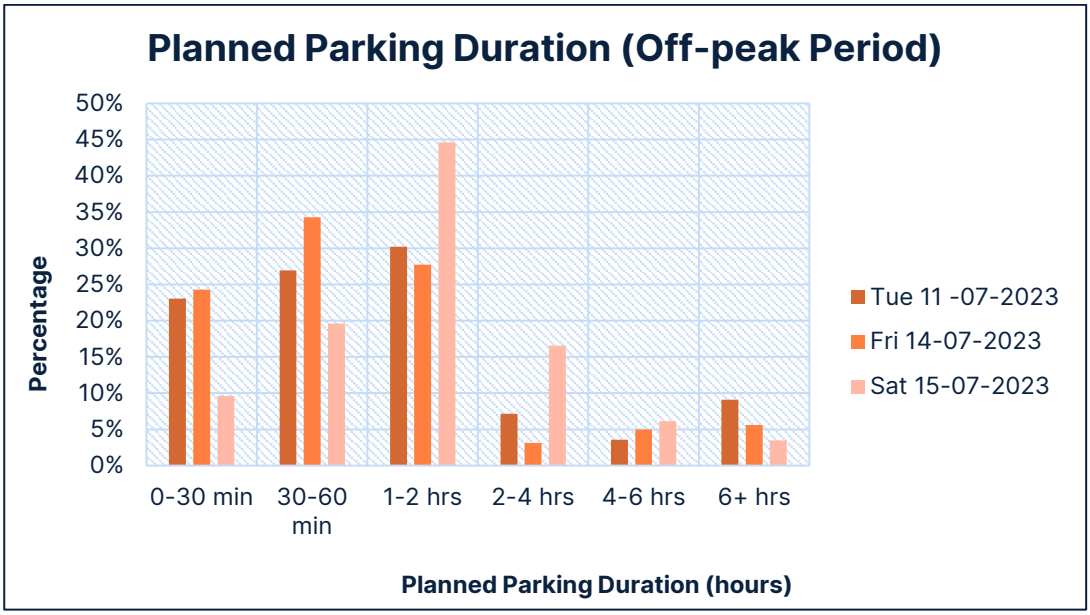


Figure 3-7: Planned parking duration in the study area: Off-peak Period

From the above, a similar trend in the parking duration was observed for the off-peak period compared to the peak period.

3.5 2020 vs 2021 vs 2023 Survey Results

3.5.1 Eikestad Mall Off-Street Parking Area

The parking accumulation against time, usable and system capacity for the Eikestad Mall Off-Steet parking area are illustrated in Figure 3-8, Figure 3-9 and Figure 3-10 for the weekday, Friday and Saturday respectively, comparing the 2020, 2021 and 2023 survey data.

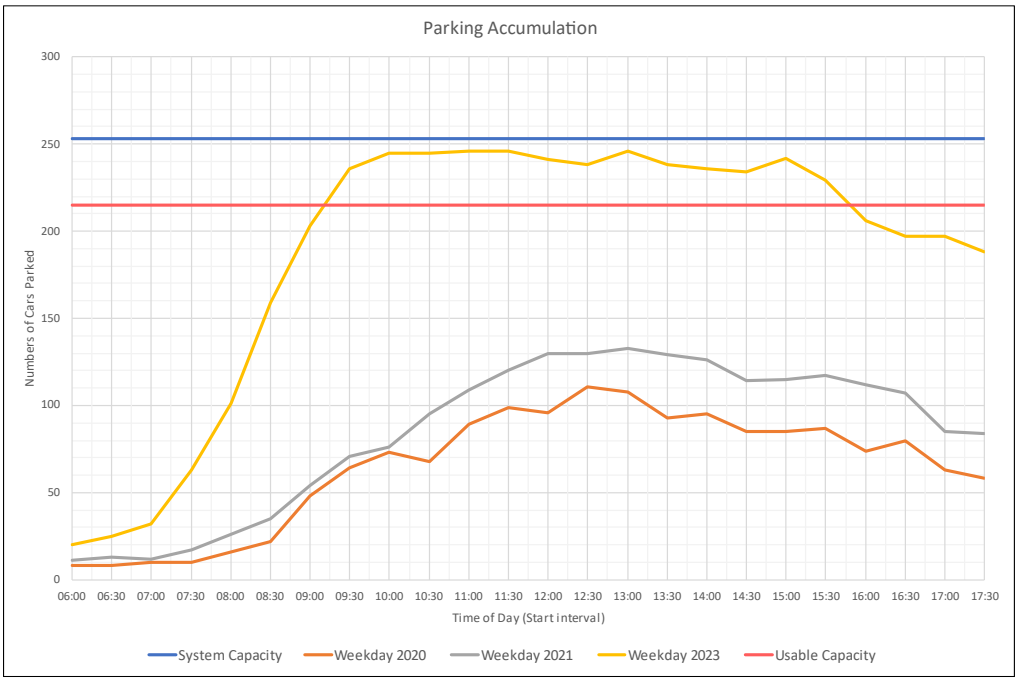


Figure 3-8: Parking Accumulation – 2020 vs 2021 vs 2023 Weekday (Eikestad Mall Off-Street Parking Area)

From the above, a 20% increase in the peak Parking Accumulation was observed from 2020 to 2021 and a further 85% increase was observed from 2021 to 2023 during typical weekdays. It was also noted that the usable capacity was exceeded in 2023.

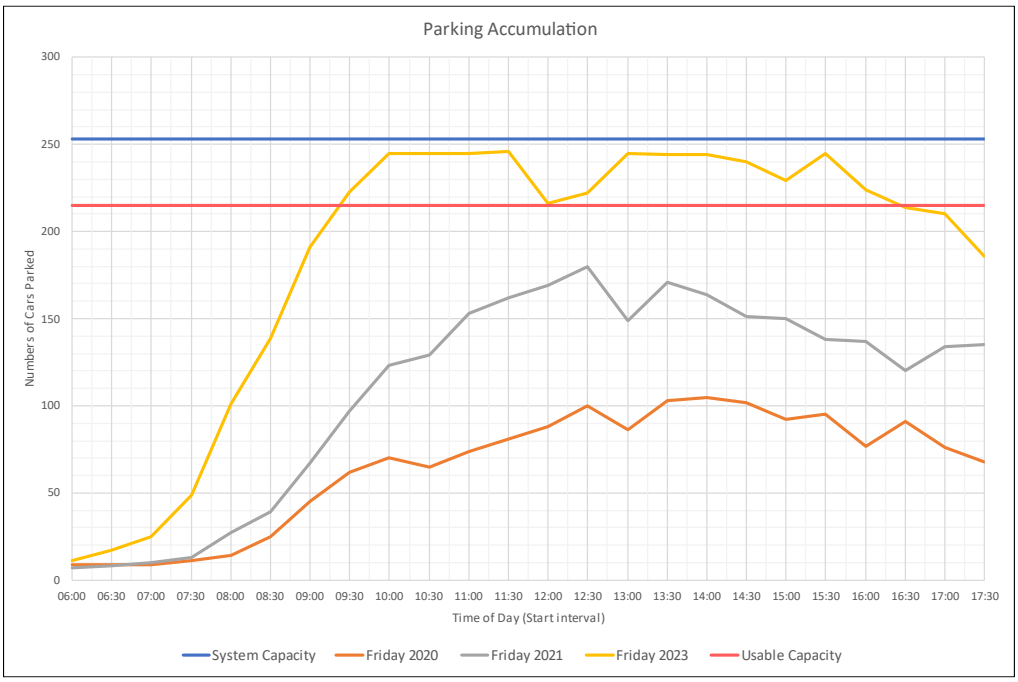


Figure 3-9: Parking Accumulation – 2020 vs 2021 vs 2023 Friday (Eikestad Mall Off-Street Parking Area)

From the above, a 71% increase in the peak Parking Accumulation was observed from 2020 to 2021 and a further 37% increase was observed from 2021 to 2023 during a typical Friday. It was also noted that the usable capacity was exceeded in 2023.

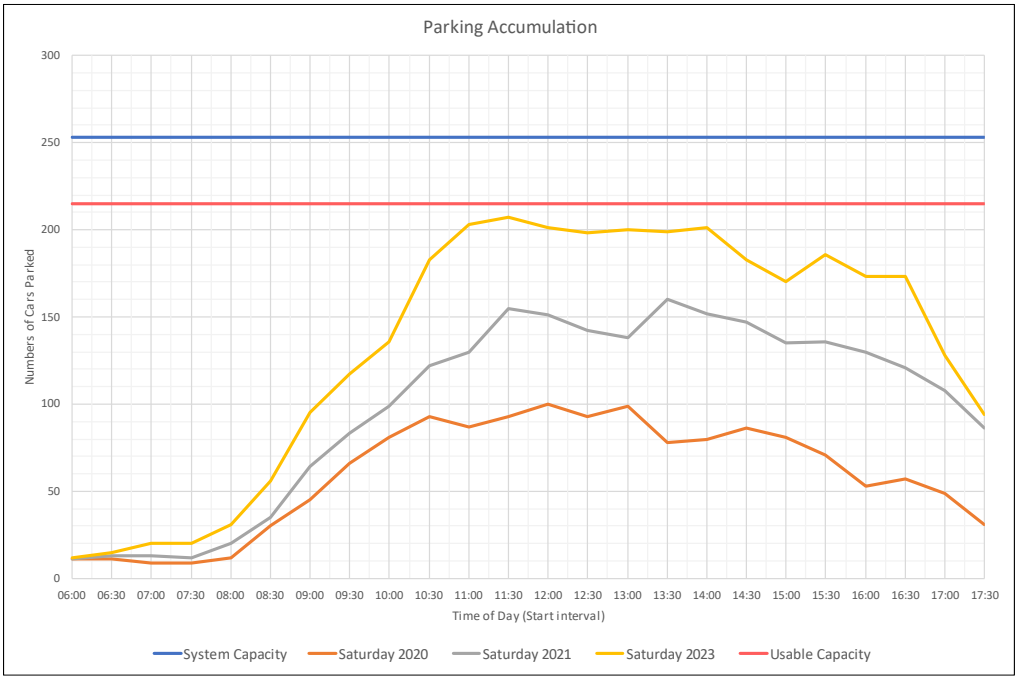


Figure 3-10: Parking Accumulation – 2020 vs 2021 vs 2023 Saturday (Parking Area L7)

From the above, a 60% increase in the peak Parking Accumulation was observed from 2020 to 2021 and a further 29% increase was observed from 2021 to 2023 during typical Saturday.

3.6 Parking Demand Calculations

Using the calibrated data above, the existing and future parking demands were calculated. For the purposes of this study, the parking requirements for the following existing and horizon years are being addressed:

- 2023 Status Quo;
- 2028 Horizon Year.

The COTO TMH 17 South African Trip Data Manual dated September 2012 provides typical growth rates to be used for growth areas based on the existing/anticipated rate of growth. Refer to Table 3-1.

Table 3-1: Typical Growth Rates

Development Area	Growth Rate
Low Growth Areas	0% - 3%
Average Growth Areas	3% - 4%
Above Average Growth Areas	4% - 6%
Fast Growing Ares	6% - 8%
Exceptionally High Growth Areas	> 8%

As indicated previously, a compounded traffic growth rate of 2.57%, calculated from the traffic surveys, was applied to the 2023 Base Year parking demand in order to derive the 2028 Design Year parking demands.

In this section, the peak occupancy based on the usable capacity was used to calculate the over/undersupply of parking. In addition, the focused study area was used to calculated the demand profile. This was based on the stated preference surveys were the reason for choosing the parking space and the purpose for parking were considered the define the major focus parking lots. The calculations were done in three methods. These were done to determine the current peak demand and off peak demand:

- Method 1: (- is the parking's required)
  - All parking in CBD assessed and use in the demand calculations.
  - Additional bays based on overflow based of parking type in the peak and the practical capacity.
  - Assumes that all parking in the CBD is in play and that motorists will drive until any parking is available regardless of destination location within the CBD of the purpose of their visit.
- Method 2: (positive is additional bays needed)
  - Assess parking in a walkable distance of the proposed facility, based on the stated preference surveys.
  - Additional bays based on volumes and space calculations of all affected parking in the revised study area.
  - Works on the eight-hour parking distribution to refine the number of peak parking requirements due to parking preference duration.
  - Assumes that demand for the underground and new facility would be equal and that all available parking is in play between the new facility and underground parking.
- Method 3: (Most realistic approach)
  - Assess parking in a walkable distance of the proposed facility based on the stated preference surveys.
  - Calculate the volumes to use the facility based on preference between the existing Eikestad parking and the underground based on the existing utilisation of these facilities.
  - Uses space time volume calculations to determine parking demand from the surveyed volumes.
  - Overflow calculations based on practical capacity of each facility.
  - Works from the 8 hour parking distribution to refine the number of peak parking requirements due to parking preference duration.

3.6.1 2023 Base Year

For the purpose of this study, the 2023 base year scenario is being analysed in four (4) stages. Each additional stage incorporates the changes implemented in the preceding stage/stages. The four stages are:

1. **Stage 1**: 2023 Status Quo:
    - The estimated percentage of the current illegal parking demand.
    - Existing overflow estimated percentage.
    - Current utilisation of the off street Eikestad Facility.
2. **Stage 2**: Incorporate projects and policies that will increase the parking demand, such as:
    - Pedestrianisation of certain streets; and
    - Elimination of parking to increase street capacity.
3. **Stage 3**: Optimise parking search time and utilization of parking areas with the implementation of a parking management system. This allows vehicles to find parking quicker and thus may reduce congestion in the CBD, it would however, not affect the max demand for parking in the CBD but would reduce waiting and circulating traffic there by allocating parking more effectively. For this scenario, it was estimated to have an effect of 10% of the parking bays required. This was estimated form the proportion of overflow vehicles that may utilise the paid off-street parking. However, this does not reduce the total demand for parking.
4. **Stage 4**: Incorporate measures and systems that will reduce the demand for parking, such as:
    - Park and ride systems;
    - Shuttle routes; and
    - Public transport systems, etc.

3.6.2 2028 Horizon Year

For the purpose of this study, the 2028 horizon year scenario is being analysed in two (2) stages. Each additional stage incorporates the changes implemented in the preceding stage/stages. The two stages are:

1. **Stage 2**: Apply a compound growth of 2.57% per annum to the status quo peak parking demand to calculate the 2028 horizon year parking demand.
2. **Stage 3**: Incorporate measures and systems that will reduce the demand for parking, such as:
    - Park and ride systems;
    - Shuttle routes; and
    - Public transport systems, etc.

The 2028 horizon year was chosen as the year in which the parking demand should stabilise after construction. This allows for teething and final construction finishes to have been completed and the facility should be functioning optimally. By no means does it suggest that the demand for parking in the CBD of Stellenbosch will peak in this year.

3.6.3 Results

The three methods used ranged from just 7 additional bays to 314 bays depending on the stages and method used. The average being around 148 additional bays over the three methods.

Table 3-2: Summary of stages and method facility size

Facility Size Three Methods	Stages	Additional Bays Required	Facility Size if Basement is used
Method 1 Total CBD Needs	2023 Stage 1	7	255
	2023 Stage 2	73	321
	2023 Stage 3	-10	248
	2023 Stage 4	-51	248
	2028 Stage 2	272	520
	2028 Stage 3	36	284

Facility Size Three Methods	Stages	Additional Bays Required	Facility Size if Basement is used
Method 2 Affected Area Needs	2023 Stage 1	66	314
	2023 Stage 2	136	384
	2023 Stage 3 (Assuming that the Underground will pick up all additional capacity)	10	258
	2023 Stage 4 (Assuming that the Underground will pick up all additional capacity)	2	250
	2028 Stage 1	225	473
	2028 Stage 2	314	562
	2028 Stage 3	221	469
Method 3 Space Time based on volume distribution to use the facility	2023 Parking Facility Stage 1	92	340
	2023 Parking Facility Stage 2	227	475
	2023 Parking Facility Stage 3	134	382
	2028 Eikestad Underground Stage 1	212	460
	2028 Eikestad Underground Stage 2	300	548
	2028 Eikestad Underground Stage 3	192	440

The table below indicates the size of the proposed facility based on the demand analysis for the different options for the different horizon years.

Table 3-3: Facility size based on method used

Stages	2023			Comments
	Method 1	Method 2	Method 3	
Stage 1	255	314	340	2023 is influenced by the available capacity in the underground for M1 and 2
Stage 2	321	384	**475**	
Stage 3	248	258	382	
Average	285	319	399	

Stages	2028			Comments
	Method 1	Method 2	Method 3	
Stage 1		473	460	Due to growth over the system, the M1 and M2 capacity for the underground is limited
Stage 2	520	562	**548**	
Stage 3	284	469	440	
Average	402	502	483	

4 Options Analysis

4.1 Locality of Options

The options for the CBD are shown in Figure 5-1.

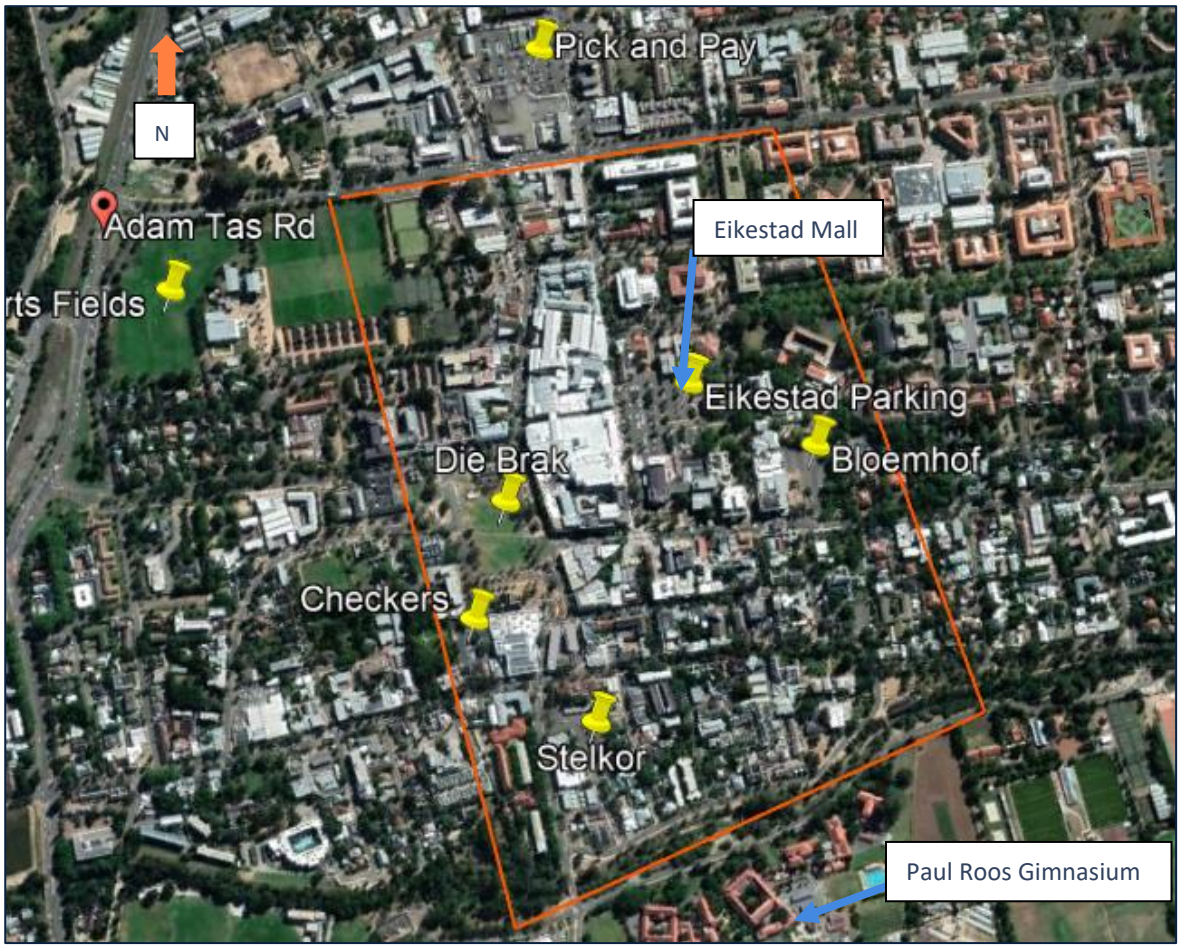


Figure 4-1: CBD Parking Options

There are seven locations identified for a multi-story parking garage in the CBD.

4.2 Proposed Solution Assessment

The proposed solutions for the CBD. The proposed solutions are assessed based on the following aspects:

- Project Description: Type of projects and location with regards to the CBD as defined in chapter 1.
- Financial impacts: Cost of the proposed facility.
- Funding and affordability: Available funding based on chapter financial assessment.
    - The 2021-2022 financial operational expenditure for Roads and Stormwater was R108 786 million with a 96% spend, the capital expenditure for road infrastructure was 95.6% at R71 300 million. Community facilities spend was R37 656 mil with a 200% spend of budget.
    - The integrated development grant was further spent at 100% in R59 941 mil.
    - From these budgets there is only a remaining budget of R7.65mil
    - The total infrastructure spend was R253 878 mil at a 89% with a total remaing budget of R29 708 mil.
    - Yet, the majority of this budget is for water and housing projects.
    - The budget for a parking facility would need to come from the municipality or an external loan.
    - The R29 mil is not enough to construct the proposed facility.

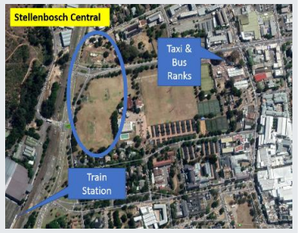
- Risk identification: Based on high level risks associated with location, regulations and project description.
- Service Arrangements: Types of services.
- Transitional management issues: Difficulty in transitioning the project over at handover stage.
- Technical Summary: Description of technical aspects of the project.
- Site Issues, legislation and regulations: Issues such as zoning, heritage etc as assessed.
- Market capability and appetite: There are existing service providers for parking facilities management in Stellenbosch from the private sector.
- Qualitive factors: The qualitive factors were determined through the preference surveys and other non-qualitive assumptions and assessments conducted in Stellenbosch.
    - The preference surveys indicated the need to be close to shopping and the places of work for people.
    - The need for long term parking.
    - The willingness of people to pay for parking.
- Suitability for a PPP
    - Is it a long term?
        - Yes the concession period is expected for 20 to 25 years
    - Are there measurable service outputs?
        - Yes, the reduction in congestion due to reduced circulation traffic and a modal shift to NMT and or PT.
        - Yes, the parking facility being utilised by persons parking their vehicles.
        - Level of service of parking facility based on utilisation.
        - Financial returns based on pay for parking
    - Is there Innovation?
        - Yes, architecture innovation.
        - Yes, smart parking as a possibility.
    - Does it include the whole-of-life costing?
        - Yes, the possibility of a BOOT etc contract is possible.
        - Depending on solution needs.
    - Is there market appetite?
        - Yes, there are current companies that specialise in parking facilities and a business model.
    - Is there an opportunity for risk transfer?
        - Yes, the transfer of the construction, maintenance and operating risk from a capacity and financial sector, through a BOOT type contract. User-pays system.
    - Does it include a bundling of contracts?
        - Bunding of construction, operation and maintenance service providers.
    - Is the service a non-core service?
        - No, this is a core service of the municipality.
    - Is the service complementary for commercial development?
        - The parking is to aid commercial developments, such as Church Street pedestrianisation, shuttle services etc.

The options below in Table 4-1 for the most, achieve the above criteria. However, for this report, the most optimal solution that satisfies the requirements above will be the most feasible location for the proposed parking garage and or parking facilities. This does not eliminate the other locations from becoming parking facilities, but is to highlight the optimal solution for the current demand identified in chapter 3. In relation to Table 4-1, facilities there are 3 options that could satisfy a location for the CBD that are suitable for a PPP type project that is currently zoned for parking, located correctly and is being used as parking:

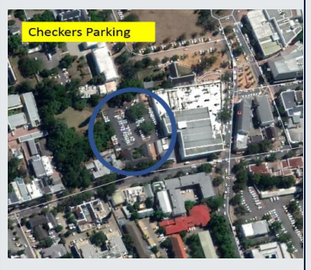
- Bloemhof parking facility
- Eikestad open parking facility
- Chekkers parking facility

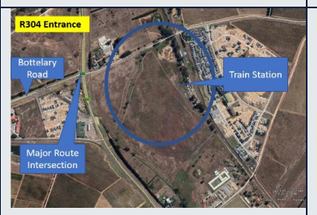
However, of these three options, in accordance with table 4-1, the Eikestad parking facility is the most optimum to develop the parking facility.

Table 4-1: Options analysis

Project Description	Location	Technical Summary	Financial impacts Estimate	Funding and affordability and Capacity	Risk identification	Service Arrangements	Transitional management issues	Site Legislation and regulations Issues	Zoned for Parking	Being Used for Parking/ Utilisation	Market capability and appetite	Qualitive factors	Parking Close to Shopping and Business	Suitability for a PPP	Preferred Option
Stellenbosch Central		Assumed a three floor Parking Garage with an estimated 1200 bays	R222 750 000	Capital budget available for R&S is R71mil. This facility would require 3 years to construct at R74mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Availability risk, Environmental Risk, Geotechnical Risk, Regulatory Risk, Completion Risk, Cost Overrun Risk, Design Risk, Market Demand Risk (Due to location),	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	Obtaining Land Use & Zoning Rights. Geotechnical & Environmental impact would need to be investigated	No	No	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Short Stay customers might not use this site due to its proximity to the CBD. Outside the study area of the CBD. Tourists might use this site if a good public transport link network is established to the CBD and other tourist sites. Public might perceive this site as unsafe due to close proximity to Station	No	Yes, but with significant risk to private sector due to location of the site. The site is approximately 1,2km walking distance to major restaurants and work areas. Difficulty to link to NMT.	No
Bloemhof Parking		Assumed a three floor Parking Garage with an estimated 480 bays	R89 100 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 2 years to construct at R44mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Construction Cost ratio to possible revenue might not be feasible due to space that will be utilised by structure and ramps.	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	This size of this Site restricts the possibility of a multi-floor facility due to spatial requirement of ramps and structure.	Yes	Yes/ No public parking	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Due to the smaller size of the site it might be a more expensive and less profitable option.	Yes	Yes, but issues on size constraints may increase the cost with less parking space area to generate an income.	No

Project Description	Location	Technical Summary	Financial impacts Estimate	Funding and affordability and Capacity	Risk identification	Service Arrangements	Transitional management issues	Site Legislation and regulations Issues	Zoned for Parking	Being Used for Parking/ Utilisation	Market capability and appetite	Qualitive factors	Parking Close to Shopping and Business	Suitability for a PPP	Preferred Option
Eikestad Mall Parking		Assumed a three floor Parking Garage with an estimated 500 bays	R111 000 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 2 years to construct at R50mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Traffic Congestion and accommodation, Geotechnical & Environmental impact low risk & Heritage, Cost overruns, Completion Risk	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	Geotechnical & Scoping Environmental impact has been completed	Yes	Yes	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	This site has a prime link to the CBD, university and local tourist sites. Short stay customers will use this site for ease of Non-motorised transport within the CBD.	Yes	YES, The site size is adequate, most central location to link to NMT between restaurants, mall, CBD, university location. Zoned as parking and is currently in use.	Yes
Stelkor Parking		Assumed a three floor Parking Garage with an estimated 480 bays	R89 100 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 2 years to construct at R45mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage..	Construction Cost ratio to possible revenue might not be feasible due to space that will be utilised by structure and ramps.	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	This size of this Site restricts the possibility of a multi-floor facility due to spatial requirement of ramps and structure.	Yes	Yes/ 0,36	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Due to the smaller size of the site it might be a more expensive and less profitable option.	No	Yes, however, there is a risk for the demand as Stelkor sits to the south of the study area. There is another significant risk in the size of the facility and the shape may create an expensive cost to revenue income ratio.	No

Project Description	Location	Technical Summary	Financial impacts Estimate	Funding and affordability and Capacity	Risk identification	Service Arrangements	Transitional management issues	Site Legislation and regulations Issues	Zoned for Parking	Being Used for Parking/ Utilisation	Market capability and appetite	Qualitive factors	Parking Close to Shopping and Business	Suitability for a PPP	Preferred Option
Die Braak Parking		Assumed a three floor Parking Garage with an estimated 1200 bays	R222 750 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 3 years to construct at R74mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Heritage Application Rejection, Environmental Risk, Geotechnical Risk, Regulatory Risk,	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	Due to the Heritage Value of this Site, obtaining Land use and Zoning rights for a development of this nature might receive rejection.	No	No	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	This site has a prime link to the CBD, university and local tourist sites. Short stay customers will use this site for ease of Non-motorised transport within the CBD. Public might perceive this development as in intrusion on the Heritage value of the site	Yes	Yes, regarding location, size and area. However, this site location has major heritage significance and the regulatory requirements may prohibit the site for becoming a parking garage.	No
Checkers Parking		Assumed a three floor Parking Garage with an estimated 240 bays	R44 550 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 2 years to construct at R22mil per year. The available budget split may be sufficient. However, the project is a user cost project and may be funded through public usage.	Construction Cost ratio to possible revenue might not be feasible due to space that will be utilised by structure and ramps.	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	This size of this Site restricts the possibility of a multi-floor facility due to spatial requirement of ramps and structure.	Yes	Yes/ 0,556	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Due to the smaller size of the site it might be a more expensive and less profitable option.	Yes	NO, the site is to small for a feasible multi story parking garage. It is currently an at grade parking facility	No
Pick n Pay Parking		Assumed a three floor Parking Garage with an estimated 840 bays	R155 925 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 2 years to construct at R74mil per year. The available budget split	PPP Attractive risk, Environmental Risk, Geotechnical Risk, Regulatory Risk,	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping.	Due to the simpler nature of this type project a transition will not be complex.	Separating road through the site might make it more expensive to develop. The site is currently used as a parking and the zoning rights should be in place.	Yes	Yes/ Outside of study area surveys	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	The integration to the CBD using NMT may be too far based on the location of the facility. It could be feasible if investigated using the university needs from the	No	Yes, there is a significant risk based on demand due to the site's location to the CBD.	No

Project Description	Location	Technical Summary	Financial impacts Estimate	Funding and affordability and Capacity	Risk identification	Service Arrangements	Transitional management issues	Site Legislation and regulations Issues	Zoned for Parking	Being Used for Parking/ Utilisation	Market capability and appetite	Qualitive factors	Parking Close to Shopping and Business	Suitability for a PPP	Preferred Option
				would not be sufficient. However, the project is a user cost project and may be funded through public usage.		However, as it is a user pays, there will be a need for financial services as well as user admin interface.		Location less ideal				engineering facility.			
R304 Entrance		Assumed a three floor Parking Garage with an estimated 1440 bays	R267 300 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 3 years to construct at R89mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Location, Surrounding Attraction, Required Public Transport	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	Obtaining Land Use & Zoning Rights. Geotechnical & Environmental impact unknown.	No	No	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Due to the proximity of the site to the CBD this might be a less viable option unless a good Public Transport link existing.	No	NO, unless the demand is created through a PT service and other regulatory restrictions for parking in the CBD and Stellenbosch	No
Adam Tas Entrance		Assumed a three floor Parking Garage with an estimated 1440 bays	R267 300 000	Capital budget available for R&S, Traffic and Transport is R71mil. This facility would require 3 years to construct at R89mil per year. The available budget split would not be sufficient. However, the project is a user cost project and may be funded through public usage.	Location, Surrounding Attraction, Required Public Transport	Due to the simpler nature of this project there are not many services involved. Access Control, Security, Cleaning, Facility Management & Landscaping. However, as it is a user pays, there will be a need for financial services as well as user admin interface.	Due to the simpler nature of this type project a transition will not be complex.	Obtaining Land Use & Zoning Rights. Geotechnical & Environmental impact unknown.	No	No	Exact Market appetite is unknown at this stage but there is a demand and business case. Private Sector Market Capability is existing	Due to the proximity of the site to the CBD this might be a less viable option unless a good Public Transport link existing.	No	NO, unless the demand is created through a PT service and other regulatory restrictions for parking in the CBD and Stellenbosch	No

4.3 Optimum Solution Selection

The sizing of the facility was done using the scenarios and methods discussed in chapter 4.4 to access the most feasible design options for the facility. The scenarios were calculated using the daily volumes of the various assumptions and existing parking conditions and the surveyed time parking durations and distributions to determine the number of bays required.

The parking facility size was calculated to be between 475 and 548 bays. Based on the stage mitigation measures and the practical capacity of the site due to the floor levels, a parking facility of 498 bays was used as the proposed parking facility.

Table 4-2: Summary of Scenario's

Scenario	Description	Volumes/ day	Space hr/ duration	Parking Size (Bays)
Base	Existing Eikestad Volumes	1169	2304	**272**
1	Illegal surveyed parking + Base	1241	2542.5	**295**
2	Scenario 1 + Church Street Pedestrianization	1497	2792.5	**335**
3	Overflow + Scenario 2	1683	3423	**475**
4	Scenario 3 + 2,57% growth 3 years	1784	3686	**508**
5	Scenario 3 + 2,57% growth till 2028	1912	3900.5	**548**
6	Scenario 3 + Night Demand and Monthly estimates	1923	3959.5	**507**

In assessing the demand analysis, scenario's 3-6 are all in the region of 450-550bays. However, in assessing the demand parameters, scenario 6 is scenario 3 with additional night and monthly demand. Some of the existing long-term parking is then converted to monthly parking and thus Scenario 6 requires less bays than Scenario 5. Scenario 6 is conservative regarding demand forecast, while it further allows for the inclusion of monthly users. Furthermore, scenario 6 allows for 85% of the calculated worst-case scenario regarding the demand analysis. Therefore, scenario 6 is the most optimal design demand estimation. The architectural designs for the proposed facility then included the analysis above to allow for +-500 bays space dependent.

4.4 Urban Analysis

An urban analysis was conducted by GAPP Architects & Urban Planners. The following key informants and recommendations were identified.

4.4.1 Policy informants

- From the detailed policy analysis, it has become very clear that the site is in fact directly and indirectly affected in various ways.
- It (the site) is strategically located within the Stellenbosch urban core and hence has to comply with the existing and envisioned urban character.
- NMT and linkages to public spaces are key considerations for the site and hence adequate provision needs to be made.
- The site furthermore lends itself to a variety of land uses, especially in light of the pressing challenges the town is facing.
- It is therefore recommended that in order for the design of the site to comply with prevailing policies, it needs to accommodate the above.

4.4.2 Urban Design Indicators

- Permeability: Maximum permeability on site to allow for throughfare, linkages and movement across the site between Andringa Street and Ryneveld Street.
- Legibility: Inclusion of key structural features to guide pedestrians through and around the site. Furthermore, dedicated lanes for multiple uses, public spaces as anchoring element onto Andringa Street, and, incorporation of the existing streetscape along Ryneveld.
- Set-backs: Ground floor set-backs to facilitate movement and celebrate the heritage of surrounding buildings. Vertical set-backs to keep within the existing urban scale.
- Heights: To be limited to 3 storeys in order to keep within the surrounding height zones.
- Edges: Edge activation along Andringa is key. This could be done via either store fronts and recreational uses. Continuity of the existing street front is also important to ensure that this street becomes a sought after destination.
- Screening: No parking to be visible from Andringa and Ryneveld.
- Architectural Articulation: Need to keep with the existing architectural language. Here materiality is important as well as the use of colour variation.
- Outdoor Advertisement & Signage: No outdoor advertisement to be permitted and site signage to be kept to a minimum.
- Public Spaces: Introduction of green /soft spaces to create continuity of the green network.

4.5 Eikestad Architectural Design

Based on the calculations done in section 5.2.1, the ideal amount of parking bays required are ±500. Within the available space, a number of 486 parking bays could be fitted. A 3-storey parking structure is proposed, which allows for this number of parking bays. The proposal is to design a sub-structure that will allow future addition of an extra level should the requirements grow. The Architectural concept report is detailed in Appendix C.

4.5.1 Architectural Aims

4.5.1.1 Site & Locality

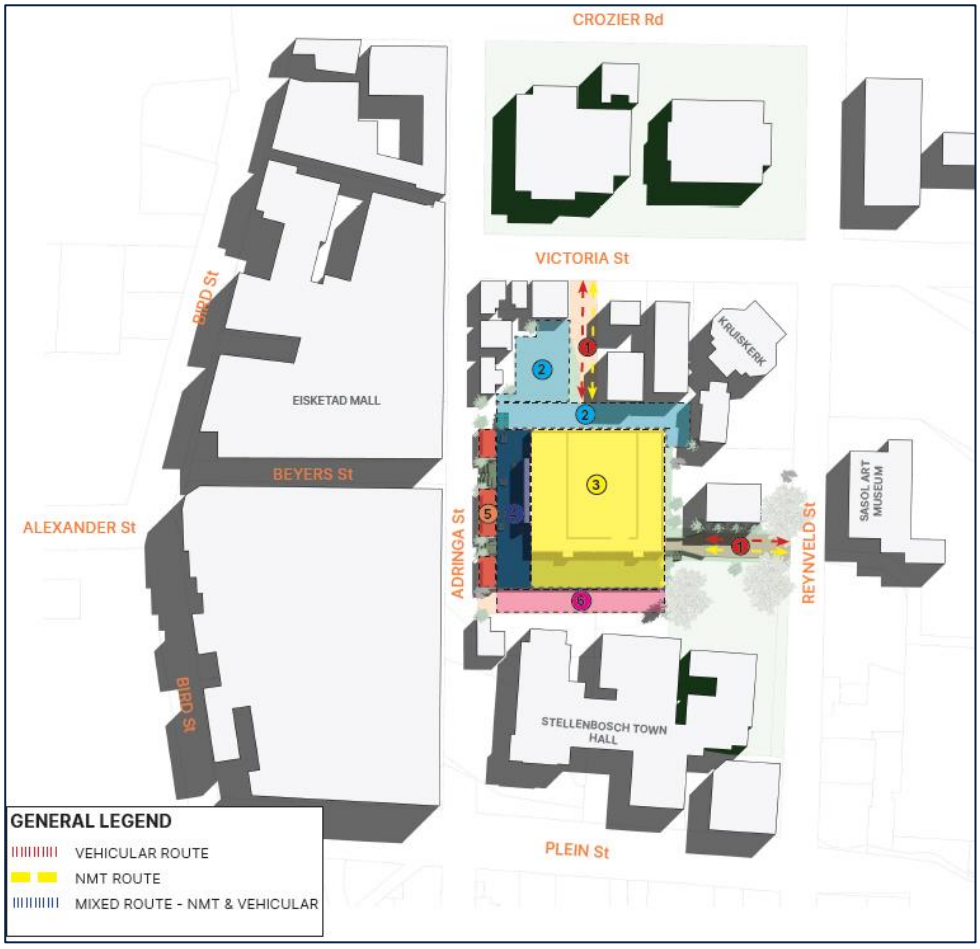


Figure 4-2: Site Locality

1. Access – Vehicle and NMT
2. Street Level Parking within Facility
3. Multi-Level Parking Structure
4. Forecourt on Podium
5. Future Retail
6. Service access to buildings bordering southern edge of site.

The architectural aims are as follows:

- Create direct access to the facility from both Victoria & Ryneveld Streets. No entrance point is proposed from Andringa Street to allow for the possibility of changing Andringa Street into a pedestrian only street.
- Create direct pedestrian access to the facility from The Eikestad Mall, Ryneveld Street & Victoria Street.

Figure 4-3: Access

- Create a parking structure that sits on top of a half-basement with a recessed structure that elevates to 2 additional storeys.
- Create a forecourt for the bigger mass of the building. This will serve as a landscape pedestrian friendly area that will connect the different parking areas. From the forecourt the main parking structure is accessed by pedestrians.
- The building has to fit into a rich Heritage context. The aim of this proposal is to create a building that will be secondary in its importance to the context. In order to achieve this the building mass has been pushed to the back and centre of the site. By doing this there is available space on the site and to utilise the available space to the full available capacity, street level parkings are proposed at this level.
- Create a layout that connects with the rich heritage value of the immediate surrounding context. The 2 bordering buildings along Andringa Street are of a high historical value. The aim is to create a lower level street façade that connects these to neighbouring buildings.
- Create a service zone to the southern side of the site. The aim of this is to create a service access to the buildings on the southern side. Furthermore, the aim is to create a breathing space between the parking structure and these buildings, which are also of a high historical value.

4.5.2 Guiding Principles

Historical Cape Vernacular streetscape design components introduced for Stellenbosch Eikestad parking:

These Historical streetscape design elements used in this design can be seen as guidelines for the design of this

development from pedestrian scale to user functionality.

1. Building form
2. Building platform
3. Scale
4. Urban courtyard
5. External envelope treatment: Wall opening and closure.
6. External finish: Walls and balustrade typology
7. Linking elements:
    - Visual,
    - Physical,
    - Pedestrian,
    - Symbolic links,
    - Walls and arch ways
    - Boundary Walls

5 Traffic analysis

The traffic analysis was conducted to assess the proposed accesses to the facility regarding congestion and accessibility based on the parking demand and optimisation analysis.

5.1 Study Area

The site will be referred to as the Eikestad Parking Facility. The site is situated on erven 1969 to 1976, Erf 6636 as well as on part of the Remainder of Erf 1962, Stellenbosch. A consolidation application will need to be submitted to consolidate these erven. The development site is located as follows:

- Within the Stellenboch Local Municipality.
- Area between Andringa Street, Victoria Street and Ryneveld Street, Stellenbosch.
- Access from Victoria Street to the north and Ryneveld Street to the east.
- Adjacent to Eikestad Mall.

The GPS coordinates of the facility are as follows:

- Latitude; 33°56'7.41"S
- Longitude; 18°51'40.81"

The site contains an existing entrance and exit from Victoria Street and Ryneveld Street. The parking is paid parking, and is available for public use. Ryneveld Street is a one-way street in the southern direction. Victoria Street is a two-way street, and vehicles can access the parking facility from any direction.

The intersections adjacent to the accesses are included as part of the study area to ensure that there is sufficient capacity on the road to accommodate the turning movements in and out of the parking facility. The study area can be seen in Figure 5-1.

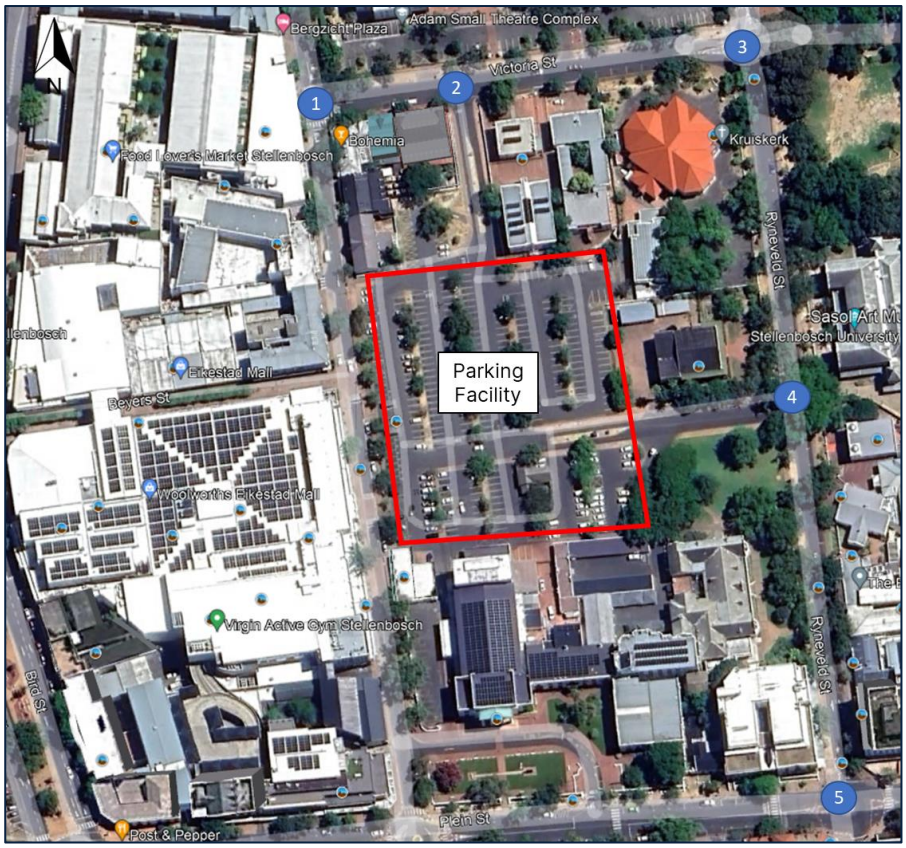


Figure 5-1: Study Area

5.2 Capacity Analysis Results

The detailed intersection capacity results per movement can be seen in Annexure B. It is evident from the results that the intersections operate at acceptable levels of service during the base and horizon years. It is evident that the queue lengths at the two accesses are acceptable for the existing control.

5.3 Results

The findings of the traffic analysis are as follows:

- The proposed access is acceptable to accommodate the additional trips.
- The proposed access has acceptable throat lengths.
- The NMT and internal walkways, existing and proposed, links to the road network, buildings and parking bays are adequate.
- The are no issues regarding the design vehicle's ability to navigate the internal road network.
- Due to the demand analysis, a wider traffic analysis would be required to assess the closure of church road on the wider CBD area.

Based on the above accesses and surrounding intersections can accommodate the additional traffic.

6 Financial Value Assessment

The value assessment is the pivotal stage of the feasibility study. The value assessment of the Eikestad parking facility consists of two main components, namely a financial value assessment and an economic value assessment. This section deals with the financial value assessment and the economic value assessment is dealt with in Section 7 of this report.

This section will assess the financial viability of the Eikestad parking facility on whether it is:

- Affordable
- Transferring risk appropriately
- Value for money

As the proposed facility at Eikestad is a parking garage, the feasibility will be assessed in terms of the PPP process as per module 4. The financial value assessment is based on a Public Service Comparator (Base and Risk Adjusted) model and a PPP (Reference and Risk Adjusted) model. All models are developed for a 20-year and a 25-year project timeline.

The Public Sector Comparator (PSC) Model is a costing of the project as per the specified outputs with the public sector as the supplier. The costs are based on recent and or actual costs of similar projects.

The PPP reference model is a costing from first principles, of the project with identical outputs, but from the private sector.

The risk transfer is to assess the effect risk has on the project due to cost implications for the public sector. The PSC model is then updated with the risk adjusted matrix. Hereafter, the affordability of the project is tested by calculating if the total cost of the project can be accommodated in the whole project term by the Stellenbosch municipality.

The project value for money is the assessment of the Stellenbosch Parking function by the private sector as a net benefit, as defined in terms of cost, price, quality, quantity, risk transfer or a combination of these. However, affordability remains the major driving forces behind the feasibility of the proposed parking facilities in Stellenbosch.

6.1 Development of PSC and PPP models

The PSC and PPP models have been developed based on the stipulated steps in National Treasury's PPP manual. The models (and their respective scenarios) are based on direct (capital) and indirect costs (operational) as well as the revenue estimates for the scenarios. Where required, assumptions have been used and explained. The estimated project costs (capital and operational, which includes maintenance costs) are for a three-story building with 499 parking bays. The model inputs are reflected in the following section.

6.1.1 Direct costs

The direct costs are split into direct capital costs (construction, relocation of civil engineering services, smart parking system), maintenance costs, operating costs and BBBEE Costs.

Maintenance costs have been estimated on industry standard maintenance cycles for parking garages. These maintenance cycles are based on the Department of Public Works, National Immovable Asset Maintenance Planning Guidelines as well as the the Effective Repairs and Maintenance strategies for parking structures 2014, and include routine maintenance, preventative maintenance (annually, quarterly or at end-of life cycles) and the replacement of capital equipment such as the smart parking system and the lifts.

6.1.2 Capital Costs

The direct capital costs for the construction of the facility are calculated in both the PSC and PPP Modes according to industry standards for structures in Stellenbosch. Construction costs have been calculated based on type of space, services and the quality of finishes required. Industry standard space requirements for parking areas were used in determining the amount of space required in each respective area and costs for each area calculated, accordingly. The costs were split into the different structures of the proposed facility. Non construction costs such as consultant costs, relocation of civil engineering services, smart parking system and fibre installation have been included, but the following were excluded: abnormal foundations, loose equipment, perimeter walls, power generators, refuse yard, fire sprinkler system, property cost and VAT.

The total 2023 capital cost estimate amounts to R115 295 583.39. When the assumed inflation rate of 5% per annum and the planning and construction period of 2 years are taken into consideration, the **capital investment amounts to R126.4m**. In year 1 the full portion of consultant costs and 70% of construction costs were allocated and in year two the costs associated with fibre provision, smart parking system and 30% of the construction costs;

6.1.3 Maintenance Costs

The calculation of the direct maintenance costs used for the model is based on industry-related costs and best practice replacement intervals for each of the maintenance items. All 2023 maintenance costs were escalated to 2026 which is the first year that the facility will be in operation and generating revenue,

The total monthly maintenance cost is estimated at R469 000.00 for the 2023 base year and almost R 543 000.00 for the 2024 year. Over a 20-year productive lifecycle of the project (to 2045) this is a total estimated cost of R17.95m, which amounts to approximately 14.5% of the original capital investment as at the end of the construction period

6.1.4 Operating Costs (Direct and Indirect)

The direct operating costs were calculated from industry applicable salaries and operations. The costs and salaries used in the various models do not take into consideration back-office staff regarding financial procurement etc. Tasks such as security, cleaning and gardening will be contracted out and are contained under maintenance. The operating costs include: 1 manager, 6 general labourers, 2 customer care officers and 4 general maintenance (including cleaners). Operating costs provide for sick days, leave days and equipment such as laptops and customer care (1.3 multiplier of salaries), 13th cheques to all employees, municipal utilities, rates and taxes, insurance and a provision for miscellaneous expenses. The total operational costs amount to just more than R1.52m per annum in the facility's first year of operation, namely 2026.

6.1.5 BEE Targets

The question that needs to be addressed is whether or not the proposed BBBEE targets will increase the cost of the Eikestad parking facility, i.e. is there a premium that will need to be priced for the inclusion of BBBEE to the extent envisaged in this Project. For the PSC base model, the cost of BBBEE may increase the bid price slightly due to the nature of the requirements for SMME and QSE involvement in the project. Approximately 30% is allocated of the construction cost for SMME and or QSE partners. This itself should not increase the cost. However, 10% management fee is allowed from the main contractor to manage the SMME and QSE partners and facilitate

training for the smaller partners. The BBBEE cost was then estimated at 10% of 30% of the project total amounting to a capital increase cost of 3%.

The BBBEE targets for the PPP models are more detailed and focus on targets for the private party, the construction subcontractor and the Operations subcontractor. Specific targets are also proposed for ownership, management control, employment equity, skills development, preferential procurement, enterprise development and socio-economic development (see Table TTT in full report for details)

There are three observable costs which arise out of the facilitation of BBBEE into projects.

Firstly, the cost of raising BBBEE equity required to fulfil BBBEE equity obligations to the Private Party, if BBBEE participants are unable to raise this finance off their own balance sheets, the cost and access to BBBEE financing for equity has the potential to directly increase project costs, (e.g. because this might cause delays in reaching Financial Close), but also can result in a project and financial structure, which is less than desirable (e.g. less "pure" equity in the deal; BBBEE participants having a substantially lower return on their investment than other shareholders).

This can be rectified through immediate operational distributions to BBBEE shareholders that are non-interest bearing loans with payments made initially that will be repaired back to the company through shareholder declarations later in the life of the project. This has an effect on the cash flow of the project and is an expense in early years, but as an overall cost should be recovered through dividend declarations.

In addition, this problem could be alleviated if financial institutions were to offer less onerous terms for BBBEE financing, as is being envisaged for this Project, thereby reducing BBBEE financing costs. A further source of alleviation of this problem could lie in the provision of technical assistance to BBBEE companies, who would be empowered to structure more favourable participation terms with the other shareholders.

Dependent on the BBBEE partner and the structures employed, the 40% target can add up to 4% additional cost to the total cost. **The model runs presented in this feasibility have assumed that no additional cost will be generated through the application of the higher threshold.**

The second cost refers to the cost of training empowerment contractors/workers lacking the necessary skills to undertake their obligations. This cost is typically borne by the large contractor/sponsor. Although this cost must be acknowledged, it is important also to note that this is offset by the broader socio-economic benefits accruing to the industry through the increase in levels of skill and experience to disadvantaged groups.

Thirdly, the financial facilitation provided by the larger contractors (typically the sponsor), for performance bonds and guarantees to banks, and guarantees to suppliers (in addition to bearing the full costs of bid preparation). These costs are typically borne by the large contractors/sponsor, who in turn can pass it on to the BBBEE contractors, (thereby reducing their margins from their operations), thus ultimately not increasing the project costs.

In determining whether or not these additional costs offer Stellenbosch Value for Money, a number of points need to be considered: firstly, as demonstrated here, these costs are not necessarily borne by the Government or Stellenbosch, since financial institutions and sponsors tend to bear the brunt of these facilitation costs. Secondly, there are important broader spin-offs that flow from the facilitation of BBBEE into the Project, notably the socio-economic benefits gained from raising the level of BBBEE/engendered participation (as owners, managers, contractors etc.) in the mainstream of economic activity in the country.

6.1.6 Revenue Estimation

The revenue estimation was done for the seven scenarios (see Chapter 5). Each scenario was based on the demand surveys conducted for the study (see Chapters 3 and 5). Revenues are estimated for the 2023 base year and escalated at an assumed rate of 8% every second year. This is considered a conservative way of estimating revenue.

The tariffs for the parking were taken as per the existing Eikestad parking tariffs. The split of parking duration was calculated as per the existing CBD parking splits. Revenue was estimated on a monthly basis with the main distinction being peak months of the year and off-peak months of the year. The peak months was considered to

be 9 months of the year (taking the students into account) and the off-peak period was then 3 months. For each of these two periods revenue was calculated on a weekday basis (5 working days) and a Saturday basis where allowance was made for 4.33 Saturdays in a month. Parking volumes (and thus revenue) were estimated for the period 05:00-19:00 each day. The Sunday tariff was assumed to be R0 and thus was not included in the volume analysis.

Only Scenario 6, included night parking with a tariff estimated additional volumes for night parking. Furthermore, only Scenario 6 allowed for additional monthly parking for employees in the area. All revenues are based on a 12-month period, with the results of each scenario as follows:

Table 6.1 Revenues

Scenario	Description	2023	2026
Base	Existing Eikestad Volumes	R10 661 866.50	R11 659 004.00
Scenario 1	Illegal surveyed parking + Base	R10 661 865.50	R11 659 004.00
Scenario 2	Scenario 1 + Church Street Pedestrianization	R11 733 046.50	R12 830 570.40
Scenario 3	Overflow + Scenario 2	R13 644 318.30	R14 923 344.00
Scenario 4	Scenario 3 + 2,57% growth 3 years	R13 992 139.20	R15 302 401.80
Scenario 5	Scenario 3 + 2,57% growth till 2028	R15 068 916.50	R17 471 880.40
Scenario 6	Scenario 3 + Night Demand and Monthly estimates	R16 710 286.00	R18 309 998.00

In summary, based on the scenarios, the estimated revenue in 2026 (first year that the facility will be operational) varies between R11.7m and R18.3m. Scenario 6 shows the best revenue possibilities, with the total revenues per year for this scenario being estimated at: R16 710 286 for 2023 (base year) and R18 309 998.00 for 2026.

6.1.7 Assumptions and Assessment Parameters

The assumptions used in the modelling of the scenarios for the PSC and PPP models are as follows:

- Inflation: 5% per annum. All costs have been escalated at this percentage. Revenues have been escalated at 8% every second year so as to be sure the analysis does not depend on over optimistic revenue estimates.
- Discount rate: The discount rate is an interest rate applied to a project's benefits and costs that are expected to occur in the future in order to convert them into a present value. This conversion is done to ascertain what those benefits and costs are worth today. The discount rate that has been used to discount the project cash flows is 10%. The same discount rate is used in the economic value assessment of indirect benefits as discussed in Section 7 of the report.
- Modelled lifecycles: For purposes of the PSC and the PPP financial analysis models the productive and non-productive lifecycles have been considered. The productive lifecycle is the period starting when revenue is generated until the selected lifespan for modelling purposes and the non-productive period includes planning and construction. Two productive project timelines (i.e., once revenue is generated and the project is in operation) have been modelled, namely a 20-year and a 25-year period. For the PPP model, these two periods can be regarded as the concession periods.
- Scenarios: A total of 7 scenarios have been developed, consisting of a base model and 6 scenarios developed based on demand (hence revenue) parameters.
- Assessment parameters: All scenarios for the PSC and PPP models analysed the Net Present Value (NPV), the Internal Rate of Return (IRR) and the Accounting Rate of Return (ARR) parameters.). NPV and IRR are closely related concepts, in that the IRR of an investment is the discount rate that would cause that investment to have an NPV of zero. Hence, the NPV and IRR are answering two separate but related questions. For NPV, the question is, "What is the total amount of money that will be made if the investment is to proceed, after taking into account the time value of money? For IRR, the question is, "If the investment is to proceed, what would be the equivalent annual rate of return that the investment would make?

In theory, a project will only be acceptable when the NPV is positive (greater than zero). Similarly, only projects with an IRR higher than the discount rate, which forms a lower limit, will be considered for funding. The ARR is the annual net profit from the investment, which includes revenue minus any annual costs or expenses of implementing the project or investment.

6.1.8 Proposed PPP structure, funding and assumptions

In accordance with module four of the PPP guidelines, the proposed structure for the PPP project is shown below.

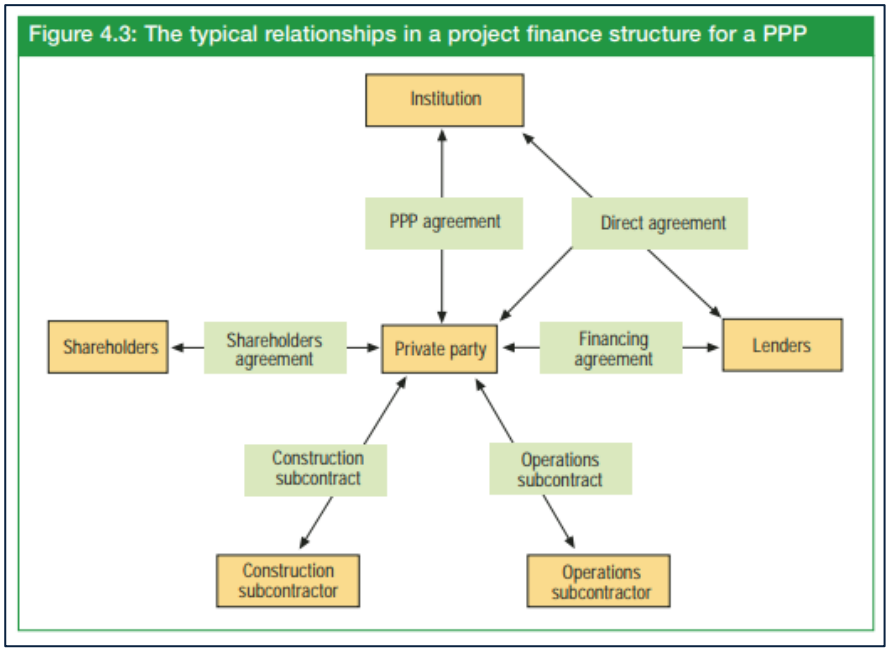


Figure 6-1: Project finance structure

The assumptions made for the PPP reference model are the same as for the PSC model. Hence, the costs and revenues are same as well as the inflation rate, revenue estimate escalation and BEE targets. The internal rate of return for investor attraction was required to be above 12.75% which is the prime lending rate +1%. Other assumptions, specific to the PPP models are as follows:

- **Currency Treatment:** It is assumed that about 5% of the capital cost will be imported primarily from European countries. Fluctuation in the exchange rates was included in the cost overrun and technology risk analysis and is a very small contributor to additional costs.
- **Taxation:** The provisions of the Income Tax Act and the VAT Act have been used in constructing the tax implications of the transactions based on the following tax rates: corporate Income tax rate (27%), VAT rate (15%), STC/Withholding Tax rate (10%) and Dividend Tax (20%)
- **Asset Values:** Asset values are not reflected in the book value of the assets as maintenance costs are not capitalised to the assets but rather expensed.
- **Equity Contributions**: Fifteen percent (15%) of the total funding required is funded through equity. The rest (85%) is funded through a redeemable shareholder loan. The shareholder loan is repaid only when there is cash available and it ranks after the reserves in terms of the cash flow cascade.
- **Dividend Policy:** The PPP model assumes a 100% dividend payout to equity shareholders of cash available for distribution to equity shareholders.
- **Equity Returns:** An internal rate of return of >12% post tax is forecasted to be required by investors and the accounting rate of return over 15% is required.
- **Debt Assumptions**: Eighty-five percent (85%) of the total funding required is funded through a single senior debt facility for the PPP reference model. Provision is made to consider alternative funding structures.
- **Funding Assumptions**: Use has been made of a single senior debt facility with the option of a second debt facility. The loan repayment term of 20 years has been assumed for both the 20-year and 25-year

models. JIBAR (Johannesburg Interbank Agreed Rate), which is the money market rate used in South Africa). The prime lending rate is currently set at 11.75% with the repo rate at 8.25%[1]

- **Debt Schedule:** A debt schedule for loan facility is prepared as part of the financial model.
- **Key Output Ratios required by Lenders:** Two key output ratios which are based on the project cash flows and are required to be met before the lenders can declare the project bankable and invest in it are the Debt Service Cover Ratio (DSCR) and the Loan Life Cover Ratio (LLCR). The minimum DSCR requirement is set at 1.2.
- **Reserve Accounts Required by Lenders:** Provision has been made for a Maintenance Reserve Account (MRA), Operational Reserve Account (ORA) and a Debt Service Reserve Account (DSRA) as it is forecasted that the lenders may require these accounts as part of their lending conditions.

6.2 PSC Models

6.2.1 PSC base Model

The table below reflects the results of the Base PSC Model.

Table 6.2: Base PSC Model

Lifecycle period	Scenario	NPV	Discount Rate	IRR	ARR	Remarks
20-years	Base	-R24 610 594	10%	7.55%	7.60%	less than the discount rate
25-years	Base	-R12 704 953	10%	8.95%	7.60%	less than the discount rate
20-years	1	-R24 610 594	10%	7.55%	7.60%	less than the discount rate
25-years	1	-R12 704 953	10%	8.95%	7.60%	less than the discount rate
20-years	2	-R11 991 810	10%	8.85%	8.52%	less than the discount rate
25-years	2	R254 214	10%	10.02%	8.52%	less than the discount rate
20-years	3	R10 754 003	10%	10.98%	10.18%	Slightly above the discount rate
25-years	3	R23 618 669	10%	11.87%	10.18%	Above the discount rate
20-years	4	R14 805 128	10%	11.34%	10.48%	Slightly above the discount rate
25-years	4	R27 778 040	10%	12.19%	10.48%	Above the discount rate
20-years	5	R27 442 065	10%	12.42%	11.41%	Slightly above the discount rate
25-years	5	R40 757 111	10%	13.16%	11.41%	Above the discount rate – good return
20-years	6	R27 442 065	10%	12.42%	11.41%	Above the discount rate
25-years	6	R42 331 393	10%	13.30%	11.52%	Above the discount rate – good return

The table shows that over a 20-year period, scenarios 3-6 returns IRRs of more than the discount rate. Over 25-years a similar situation is presented but at higher levels. Scenarios 1 and 2 are below the discount rate and where Scenario has a negative NPV, Scenario 2 breaks through and have a very small NPV. Scenario 3 is marginally more than the discount rate and has a positive NPV. Scenarios 5 and 6 performs the best as reflected over both 20 and 25 years.

[1] 3 November 2023

6.2.2 Risk Adjusted PSC Model

6.2.2.1 Risks and Risk Transfer

In following the Feasibility Study Guidelines, optimal risk transfer is a cornerstone concept in order to achieve "Value for Money". The Risk Matrix is a tool that is used to identify and quantify the risks in the Project and to allocate the identified risks to determine optimal risk allocation; this is done for both the PPP Reference Model and the PSC Base Model. The Risk Matrix is integrated into the financial model.

The Risk Matrix identifies the Project risks, documents the consequences of each risk, identifies mitigation factors, allocates the risk between the contracting parties and quantifies the risk. The quantification of each risk is determined, firstly, by estimating the probability of occurrence and secondly, by estimating the most likely loss upon the occurrence of the event; the value for the risk is the product of the probability and the value of the loss. The allocation of the risk is identified to determine which party will bear the risk, or the sharing of the risk. The risk allocation has been prepared upon the basis of that party, which is best suited to manage the risk at the best "Value for Money", e.g. if a particular risk is allocated to the private sector where they are not best placed to manage this risk they will price a large premium into the contract to assume such a risk, thereby impacting negatively upon the project's "Value for Money" calculation.

With respect to the quantification of the risks, the risks for both a project procured as a PPP and a project procured by Government as a turnkey project have been incorporated together into a single Risk Matrix. When quantifying the risks, the **PSC Base Model** indicates the total Project risk, following this procurement method the Government retains all the risks in the Project; whereas the **PPP Reference Model** indicates the risks retained by Government, by virtue of the risk-sharing with the private sector. For the purposes of this Feasibility Study, reference is made only to 'retained risks' in the context of both the PSC Financial Model (i.e. the Project risks) and the PPP Financial Model (i.e. the retained risk).

In addition to the quantification of risks, each risk has been ranked (on a scale of high, medium and low) for both quantitative and qualitative risks; this has been done to draw Stellenbosch Municipality's attention to the 'high' risk area of the Project.

The Risk Matrix is to be used by the transaction advisor team in the future: namely the legal and financial advisors. The legal team will use the Risk Matrix, specifically the risk allocations, as a basis of preparing a draft PPP Agreement (assuming that Treasury Approval I is achieved in the future) ensuring that the risks transferred are captured in the PPP Agreement. The Risk Matrix will further be used by the Legal Advisor in evaluating the bids, and to define the broad parameters of the negotiations, if a PPP contract is viable.

The total risk value was assessed at R22.9m. In this project the risk allocation was done through the best fit of which party would adequately manage the risks identified. If the risks are transferred/ allocated to the private sector, where it is the best party to address the risks, the total risk value decreases to R1,14mil, which is 5% of the total risk value.

The risk adjusted PCS model was done in in comparing the NPV of the base model, the risk adjusted model and the risk retained model. As per the PSC base model only scenarios 3, 4, 5 and 6 were acceptable, hence for the risk analysis, only these scenarios were compared.

6.2.2.2 Risk Adjusted PSC model results

The risk adjusted PCS model was done in in comparing the NPV of the base model, the risk adjusted model and the risk retained model. The financial models are located in Appendix D and E of the full report. As per the PSC base model only scenarios 3, 4, 5 and 6 were acceptable, hence for the risk analysis, only these scenarios were compared.

The risks created an NPV difference between the base model and the risk adjusted models of scenarios 3-6 of between R15.2m and R19.0m over 20 years. Over a 25-year period the difference is between R6.6m and R42.0m. The difference the risks created between the risk retained models and the base models ranged between R8.5m and R14.4m over a 20-year project life cycle and between R14.8m and R16.5m over a 30-year period. The impact of the risk on the NPV of for example, Scenario 6 translates to a base NPV of R29.4m to a -R10.4m for the risk

adjusted model to R14.9m NPV for the risk retained model over a 20-year period. Over a 30-period, the NPV is reduced from a R42,3m (base model) to a low R0.06m for the risk adjusted model to R25.8m for the risk retained model.

The actual cost based on the risk adjusted matrix for government over the life cycle of the project for the scenarios shows a difference on costs of around R15m to R30m.

6.2.3 Affordability Analysis of PSC Model

The capital expenditure on the Eikestad project would require a year 1 spend of R90.8 and a year 2 spend of R35.5m. The June 2021 Amended Budget for capital expenditure in the Stellenbosch Municipal area (which excludes any provision for a parking garage) amounted to R71.62m. If this amount is increased by 5% per annum (an optimistic increase) the capital spend could be R85.28m. These realities clearly demonstrate that the Stellenbosch Municipality would be hard pressed to find any fund (outside of grants) for the parking facility, which makes it patently clear that the Municipality would require a private partner to develop the facility.

In addition, the operational and maintenance costs amount to another R1.5m per year.

6.3 PPP Models

This section reports on the financial model developed from the perspective of a private partner As with the PSC model, the PPP model also contains a risk adjusted PPP reference model which is compared to the risk adjusted PSC model and determines the best value for money. As part of the PPP reference model, assumptions were made regarding lending rate, debt/equity, BBBEE structured costs and includes a risk adjustment for the PPP reference model, based on the identified risks and mitigation measures.

The PPP reference model was established as per module 4 of the National Treasury PPP guidelines based on the User-Charge PPP model which is advised for this project. Due to the nature of the risks, the availability of funds and the technical capacity for this type of project, a Build-Own-Operate-Transfer (BOOT) is most likely the most acceptable contract type.

6.3.1 PPP Reference Model

The PPP reference model (i.e. the model non adjusted for any risk) was developed for the PSC model scenarios that were acceptable, namely scenarios 3-6:

Scenario 3:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75%, the NPV after VAT and Tax at a 10% discount rate was -R32.6m with the IRR -3.64% over a 20-year period. Over 25 years the picture improves to a positive NPV of R16m and an IRR of 11.5%.

The ARR, DSCR and the LLCR were not acceptable.

The shareholders return and BBBEE total project cost is described. Due to the minimum proposed BEE returns of 7.32% of original capital, the equity of this model could not balance and thus resulted in a final equal split. With a 3% minimum return on capital for the BBBEEE partner, the final returns are according to shareholding split.

However, scenario 3 will not be an attractive investment.

Scenario 4:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75, the NPV after VAT and Tax at a discounted rate was R8.7m as the IRR was at 9.43%. Over 25 years the NPV increased to R18.3m and the IRR to 12%, which is above the discount rate, but below the lending rate of 12.75.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 3.23% total increase on the project cost.

This option is marginal as a feasible option yet could still be feasible if the Debt/ equity was a 90/10.

Scenario 5:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75%, the NPV after VAT and Tax at a discounted rate was R23.1m and the IRR came to 13.01% over a 20-year period. Over 25 years the picture improves to an NPV of R33m and an IRR of 14.7%, which is above the discount rate and the lending rate used. The DSCR is not acceptable in either the 20 or the 25-year periods.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 2.73% increase on the project cost.

Scenario 5 is an acceptable investment option.

Scenario 6:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75%, the NPV after VAT and Tax at a discounted rate was R24.8m and the IRR was 13.4% over a 20-year period. Over 25 years the picture is improved to an NPV of R34.4m and an IRR of 15.04, which is above the discount rate and the lending rate. The DSCR from year four onwards is acceptable if a DSCR of 1.2 is accepted, but not if a DSCR of 1.5 is targeted.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 0.93% increase on the project cost.

Scenario 6 is an acceptable investment option.

From the results above, three demand scenarios pass through to be assessed as the risk adjusted PPP reference model.

6.3.2 Risk Adjusted PPP Reference Model

The risk adjusted PPP reference model has been compiled by transferring risks to the reference model. The risk likelihood and the effect are reduced compared to the PSC model as the private sector has mitigation measures that were considered from the risk allocation matrix. The operational and maintenance risk have been mitigated as the private sector has extensive knowledge and expertise in these fields. The Heritage risk and the usage demand risk remains with the public sector as they are best suited to mitigate these risks.

The analysis of the risk adjusted PPP model was done for the three scenarios that returned feasible results for the PPP reference model.

Scenario 4:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75%, the risk adjusted NPV (after VAT and Tax) at a 10% discount rate was R -5.2m with an IRR of 8.26% over 20 years, which is below the lending rate. Over 25 years the picture improves to a positive risk adjusted NPV of R6.8m and an IRR of 11.62%, which is above the discount rate, bust still below the lending rate. The ARR is just below 11%. The DSCR from year four onwards is not acceptable at 1.2.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 0.93% increase on the project cost.

This option is not feasible and not an attractive investment. This option could become a feasible one if the lending rate is lower than 11%. Similarly, if the tariff increase was increased to 5% per year, the options return a more feasible outcome.

Scenario 5:

Using a Debt/ Equity of 80/20 and a lending rate of 12.75%, the risk adjusted NPV after VAT and Tax over 20 years at a discount rate of 10% was R5,5m with an IRR of 11.92%. Over 25 years the picture improves significantly to a risk adjusted NPV of R18.8m and an IRR of 14.34%, which is above the discount rate and the lending rate. The DSCR from year four onwards is acceptable.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 0.93% increase on the project cost.

Scenario 5 is an acceptable investment option. However, the IRR is marginal if mirrored against the lending rate used in the model. A lower lending rate will improve the outcome of this scenario.

Scenario 6:

Using a Debt/ Equity of 85/15 and a lending rate of 12.75% the risk adjusted NPV over 20 years is R6.7m with an IRR of 12.34%, above the discount rate but below the lending rate. Over 25 years the picture changes significantly to an NPV of R17.89m and an IRR of 14.37%, which is above the discount rate and the lending rate. The DSCR from year four onwards is acceptable at 1.2, but not at 1.5.

The shareholders returns are acceptable in accordance with shareholding. The BEE expense results in a 0.93% increase on the project cost.

Scenario 6 is an acceptable investment option, especially over a 25-year given the assumptions, particularly the discount rate and the lending rate are taken into account.

From the results above, two options remain as attractive investments, scenario 5 and 6 using the above criteria and assumptions.

6.4 Sensitivity Analysis

The sensitivity analysis of both the PSC models and the PPP reference models were conducted. The sensitivity analysis was done with regard to demand, lending rates, debt/equity, inflation and annual tariff increases

Due to the fact that the demand sensitivity is tested through the proposed seven scenarios, the remaining items above were only assessed on sensitivity on the NPV and IRR for scenario 6.

6.4.1.1 Demand Analysis

The scenarios indicated the sensitivity regarding the demand. The demand of the seven scenarios differs as shown in the table below.

Table 6.3 Demand analysis for each scenario

Scenario	Description	Volumes/ day	% difference
Base	Existing Eikestad Volumes	1169	61%
1	Illegal surveyed parking + Base	1241	65%
2	Scenario 1 + Church Street Pedestrianization	1497	78%
3	Overflow + Scenario 2	1683	88%
4	Scenario 3 + 2,57% growth 3 years	1784	93%
5	Scenario 3 + 2,57% growth till 2028	1912	99%
6	Scenario 3 + Night Demand and Monthly estimates	1923	100%

The results of the demand sensitivity indicated that over a 20-year period the PSC Risk retained model were still viable investments for scenarios 4 to 6 with IRRs ranging from between 10.13% (slightly above the discount rate) for scenario 4 to 11.36% for scenario 6. NPVs for these scenarios varies between R1.4m to R14.9m, which is equal to a R13.5m difference.

Over a 25-year period, scenarios 3 to 6 show viability from an IRR and an NPV perspective. Over this project period the IRRs of the PSC risk retained model varies between 11.72%for scenario 3 to 12.09% for scenario 6. Similarly, the NPVs vary from R8.8m for scenario 3 to R25.9m for scenario 6. Over a 25-year period scenario 3 also becomes viable. The NPV variance over this period amounts to R17m.

The effect of the differences in demand is significant over the lifetime of the project.

The results of the PPP risk adjusted model was more sensitive as the attractive criteria is more stringent. The models that yielded a possible investment was based on scenarios 4, 5 and 6. This IRR and NPV differences, over 20 years were between 8.8% and 20.8% and R13m and R18m respectively. Over 25 years the differences were between 6.6% and 13.3% for IRR and R14m and R18.2m for the NPV.

The difference in demand is 11% per daily average. Although the range in NPV for the analysis is high, the daily averages is a yearly difference of 122 472 parked vehicles. As such the robustness of the scenarios tested and the sensitivity of the financial model for including the risk retained models is stable and able to endure a significant reduction in users and still ensure returns.

6.4.1.2 Lending Rates

The lending rates was assessed in only the PPP risk retained scenario 6 mode as this option is the most optimal scenario where night and monthly parking were included. The results from this analysis show a significant difference in the sensitivity as the rate increases per 1%, with all other assumptions staying the same. As expected, the impact of the lending rate does significantly affect the feasibility of the investment. The IRR is less sensitive than the NPV.

6.4.1.3 Debt/Equity

The debt/ equity was assessed in only the PPP risk retained scenario 6 model. Debt/equity ratios were assessed for various levels, from 40/60 to 95/5. The impact of Debt/ Equity has a significant effect on the IRR the higher the debt and then decreases in sensitivity on the IRR as the equity increases. In contrast, the effect of the increased equity has a more profound effect on the NPV, the higher the equity becomes. However, the sensitivity of the increased equity is less significant than the demand and lending rate effects.

6.4.1.4 Inflation

The inflation rate was assessed for increases in 0.5% interval levels from 4% to 6% in only the PPP risk adjusted scenario 6 model. The impact of inflation has a very low effect on the overall IRR and NPV values.

6.4.1.5 Annual Tariff Increase

The annual tariff increase was assessed in both the PSC Risk Retained and PPP Risk Adjuste scenario 6 model. The sensitivity analysis was performed to show the effect as the annual tariff rate is increased and also shows the effect if lower increases than the modelled increase of 8% every second year is implemented. The impact of this increase at even low percentage increases has a very high effect on the overall IRR and NPV values. The results of the sensitivity analysis clearly demonstrate the danger to the profitability of the project if lower than inflation rate increases are implemented. The effect on the IRR in the PSC model is less significant, but as with the PPP model, the effect on the NPV is significant.

6.4.1.6 Summary

Based on the above analysis, the risk adjusted models are most impacted by demand, revenue increase and the lending rates. The debt/ equity and inflation have a lower effect on the sensitivity of the models. The models have been developed with an average lending rate, low tariff increase and an achievable and conservative demand. The debt/ equity is in order with existing PPP projects in South Africa and can be changed by 10 to 20% without the model becoming completely unattractive. The inflation rate was taken as a realistic value and has little effect on project. Based on the above, the models have been developed conservatively, have flexibility and are still attractive as a possible investment opportunity.

6.5 Affordability Checks

6.5.1 Institutional Budget Availability

As discussed earlier in this section, the availability of funds form the Stellenbosch Municipality is limited with regards to other project commitments and available equity for capital projects. The recently updated CITP shows that the Municipality is not providing any budget for the Eikestad Mall. It can therefore be deduced that a PPP option is really the only way forward.

Though, the project becomes self-sustainable in the operational phase and as such will cover its own operational and maintenance cost post construction. Nevertheless, if the project is a proposed BOOT PPP user pays type project, the municipality would need to, through negotiations, only fund the retained risk section.

6.5.2 Budget Vs Risk adjusted PPP Reference Model

In assessing the retained risk section, the municipality would need to keep available funds of approximately R1,5mil to R2mill per year NPV. At a worst-case scenario, the annual demand difference between scenario 3 and 6 is +- R2 to 3mil per annuum and is thus the maximum the risk amount would arise to. It must also be understood that although scenario 3 for the PPP risk adjusted model did not return favourable investment indicators, it did not make a financial loss. Nevertheless, the maximum demand difference financial risk to the project per year is still affordable within the available budget. Hence the project as a possible PPP BOOT project could be affordable and feasible for the municipality based on the analysis above.

6.6 Initial Value for Money

The initial value for money test is done by comparing the PSC risk retained models and the PPP risk adjusted models for scenario 6. The process of establishing the value for money test is as follows:

- Check the models.
- Establish the initial indication for the value for money test.
- Assess the BEE value for money.

6.6.1 The Models

The models were checked as follows:

- Do the models reflect the requirements of the output specifications? The models have assessed the NPV, IRR, DSCR and LLCR and the ARR.
- Has all capital, maintenance, operational etc cost been included in both models? All models have included maintenance, operational (direct and indirect) and capital cost (design fee, site supervision and construction costs)
- Have all BEE costs been including? The BEE shareholder, Socio-Economic and capital costs have been included in the respective models.
- Have the risks been summarised and the financial consequences been included? The risk matrix, impacts, likelihood, financial impacts, transfer and retained assumptions have been included and assigned to the relevant models.
- Has a sensitivity analysis been done? A sensitivity analysis has been conducted and assessed for the applicable scenarios with regards to demand variations, lending rates, inflation rates, revenue adjustments and different debt/equity ratios.
- Are all assumptions used reasonable and appropriate? The assumptions made have been tested in the financial sensitivity model and are considered reasonable and appropriate.

6.6.2 Initial Value for Money Test

The initial value for money test was conducted for three criteria, namely a Financial and Technical capacity, Cost and BEE targets and finally based on the Net present values. The models have the exact same revenue incomes,

discount rate and inflation, as per scenario 6 of the 20-year forecast. The 20-year analysis was selected as this is the minimum concession period. The Financial and Technical section indicate that the private sector would be able to secure funds, has industry experience is managing this type of project and has the technical capacity to operate and maintain such a facility. The public sector could fund the project, however this would detach funding from other capital projects that may be needed. In addition, the public sector does not have the capacity to manage and operate such a facility. The cost analysis indicated that the NPV of the private sector and the public sector is similar excluding VAT and Tax, however, the private sector has a factor of 5 in its returns to BEE partners. In addition, due to Tax and VAT, the private sector returns an additional NPV of R66m to the public sector over 20 years and R122m over 25 years.

The NPV risk analysis indicated that the private sector could manage the risks far more efficiently and has the ability to reduce the total risk cost to the public sector by almost 60% in transferred risks as per the NPV value of the project. This is significant risk transfer.

In assessing the risk adjusted NPV total returns, the NPV of the private sector before Tax is greater than the risk adjusted public sector NPV. This is as a result of better risk management expected for the private sector. In addition, the facility will be transferred at no and or nominal consideration (as negotiated with private party) back to the municipality with a viable useful asset with an agreed to remaining life required.

Based on the analysis, it is apparent that the private sector gives an initial value for money on the:

- Technical abilities;
- Risk Transfer abilities;
- Financial Returns and affordability; and
- BEE target spend and upskill.

7 Economic Value Assessment

The objective of the economic value assessment is to shed light on the **broader economic advantages** that the new parking facility will have on the community of Stellenbosch and its neighbourhoods. The Economic Analysis comprises two main components, namely, a Costs Benefit Analysis (CBA) and a Macroeconomic Impact Analysis (MEIA).

It is important to note that CBA and MEIA are two different assessments tools. The CBA, in contrast to the Financial Analysis (Cash Flow Analysis), considers the valuation of both monetary and non-monetary benefits including social, environmental, and quality of life impacts, where the cashflow analysis focuses only on the monetary benefits. The CBA uses shadow prices to portray the scarcity of the resource and effects adjustments where the market prices are subsidised for social welfare reasons. The CBA is done in constant prices and a real discount rate of 10% is used.

The Economic Impact Analysis focuses specifically on measurable changes in the flow of money (income) earned by labour and businesses, including both spending and productivity effects. It calculates the broader impacts in terms of Gross Domestic Product (GDP), Employment, Household Income, and the impact on the Fiscus.

In general, the basis for calculating the benefits of a Transport Project entails the following.

- Vehicle operational costs.
- Time costs; and
- Accident costs.

The users of the Eikestad parking facility will benefit in terms of the reduction of vehicle operational costs and time costs. When there is a shortage of parking, drivers must often park some way from their actual destination, and this extra walk time can be viewed as a cost.

The benefit also emanates from the reduction of swerving and searching for parking bays. Due to the availability of the new parking garage the users can drive straight to the new parking garage.

As far as the savings of accidents costs thereof is concerned, the new parking garage will have only a minuscule impact and can therefore regarded as negligible.

7.1 Results of the Cost Benefit Analysis

The main results of the CBA are as follows:

- The PV of the total savings amount to R425.7 million.
- A Surplus / Net Present Value (NPV) of R227.5 million in 2023 constant prices.
- An Internal Rate of Return (IRR) of 23.7%; and
- A Benefit Cost Ratio (BCR) of 3.42.

The contributions of shorter distance walk due to the existence of parking garage are as follows:

- Value of Time Savings, R88.9 million, (20.9%)
- Less Swerving in searching for parking:
    - Value of Time Savings, R99.6 million, (23.4%); and
    - Value of less Vehicle Operating Costs, R237.3 million, (55.7%)

The economic CBA also satisfies all CBA evaluation criteria. It yields an NPV which is positive, an IRR which is significantly higher than the real social economic discount rate of 10% , where this discount rate of 10% refers to the average cost-of-capital for the project, taking into account the inherent risk factors associated with such capital projects, and a Benefit/Cost Ratio which is greater than 1 which indicates that the benefits exceed costs over the 25-year programming period.

7.2 Results of the Macro - Economic Impact Analysis

The macroeconomic impact reflects in the first instance the construction effect, maintenance, and operational effect in terms of standard macroeconomic indicators such economic growth and employment. Secondly it also measures the magnitude and nature of the contribution that the savings on time and operational costs contribute to the future economic growth of Stellenbosch.

In essence the results of the Macroeconomic Impact Results can be summarised as follows:

- The average annual impact of the Stellenbosch Parking Garage on the GDP of the Stellenbosch will amount to R 153 million per annum in 2023 constant prices. The GDP comprises of remuneration of employees and returns on capital invested (profits amongst others).
- The parking garage will sustain 235 jobs on average over the programming period, which will impact positively on the Stellenbosch economy.
- The total impact on household income amounts to R34 million, of which 14.7% is destined for lower-income households. As such, a percentage of the total income generated by the parking garage will benefit the poor communities in the Stellenbosch.
- The annual fiscal impact will amount to R21.26 million per annum through direct and indirect taxes generated by the operation of the Stellenbosch Parking garage.

7.3 Effectiveness Criteria in terms of the Capital Invested

The effectiveness indicators for capital investment efficiency highlight the capital-intensive nature of the Parking Garage. For each R1 of capital invested in the project, R0.40 additional GDP is generated compared to R0.24 generated from an equivalent capital investment on an average Stellenbosch project. This implies that the capital employed in the Project is more efficient in generating output as compared to capital invested in the average Stellenbosch project.

The labour/capital ratio reveals that, for each R1 million of capital investment in the Parking Project, 0.61 new jobs will be created. An equivalent capital investment in the average Stellenbosch project would create 0.86 jobs, which is once again indicative of the capital intensity of the Project.

7.4 Concluding Remarks

From the CBA analysis it is apparent that the development of the Eikestad parking facility is economically viable. The Macroeconomic Analysis exhibits an important contribution to the GDP and jobs creation. However, it shows that it is a very capital-intensive project.

8 Conclusion and Recommendations

The demand for parking services in the CBD amounted to 300 bays. Based on the needs analysis and based on the solutions analysis, the Eikestad Mall parking area was identified as the most feasible options for parking facilities.

Due to the conditions of the CBD and the nature and parking utilisation demand, the CBD Eikestad parking needs identified a need for a multi-story parking facility. As a result, the feasibility of this facility was assessed for the public sector, as well as a possible PPP project.

The value for money assessment of the Eikestad Parking garage resulted in the project having a feasibility assessment as favourable for a possible PPP BOOT contract. It is apparent that the private sector gives an initial favourable value for money on the following considerations:

- Technical Abilities;
- Risk Transfer abilities;
- Financial Returns and affordability;
- BEE target spend and upskill.

In addition, due to the cost and expertise required to fund and manage the facility, it creates a significant risk for the municipality to design-construct-operate and maintain the facility. The facility was assessed for both a 20- and 25-year forecast. The 20-year forecast deemed the minimum period, while the 25-year forecast deemed the longest. The analysis indicated that the 20-year forecast has scenarios 4, 5 and 6 that are acceptable, while the 25 year forecast allows for scenario 3, 4, 5 and 6 to be acceptable. As a result, the more favourable concession period was deemed for the 25-year period. As a result, it is recommended that the Eikestad Parking Garage be considered as a viable option as a PPP contract. Based on the analysis, it is recommended that treasury approval 1 is approved.

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Appendix A Full Feasibility Report

Refer to electronic file