



Registration No: 1998/009584/06

THE SOUTH AFRICAN NATIONAL ROADS AGENCY LIMITED

STANDARD SPECIFICATIONS FOR OPERATIONS AND MAINTENANCE OF CTROM PROJECTS: PAYMENT METHODOLOGY AND DESCRIPTION OF PAYMENT ITEMS

OCTOBER 2010

VOLUME 2 BOOK 7a

ISSUED BY:

THE CHIEF EXECUTIVE OFFICER
SOUTH AFRICAN NATIONAL ROADS AGENCY LIMITED
P O BOX 415
PRETORIA
0001



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PART A. PAYMENT METHODOLOGY

1. SCOPE

The methodology of the monthly payment to the Contractor is presented separately in this section for the Operation Service and for the Design-Build activities respectively. The payment methodology for these two periods will consist of a monthly payment certificate based on a Schedule of Payments/Cost Matrix and with various further adjustments, (such as adjustments due to application of Performance Measurement KPI's, Penalties, Consumer Price Index etc) of the payment in terms of the Schedule of Payments/Cost Matrix. The structure and main contents of the monthly payment certificate are provided for the Operation Service and Design-Build activities respectively.

The Standard Specifications for Operations and Maintenance of CTROM Projects: Performance Measurement (Volume 2 Book 6a) contains details regarding the adjustments to the Schedule of Payments/Cost Matrix resulting from the Contractor's performance.

2. PAYMENT METHODOLOGY: OPERATIONS SERVICE

2.1 Overview of Payment Methodology

The Payment Methodology for the Operation Service will consist of three main parts, namely:

- 2.1.1 Part 1 – Schedule of Payments/Cost Matrix (as documented in Part B of this Volume 2 Book 7a)
- 2.1.2 Part 2 – Adjustments to the monthly payment of the Contractor
- 2.1.3 Part 3 – Addition of CPI and Summation.

2.2 Structure and main contents of the monthly Payment Certificate

2.2.1 Part 1: Schedule of Payments/Cost Matrix

Payment in respect of the Operation Service part of the Contract shall be made based on the services provided on a monthly basis in terms of the Operation Service Schedule of Payments contained in the Project Document (Volume 3).

The Schedule of Payments for Operation Service is in the form of a Cost Matrix for each month of the Contract Period. The Contractor will have to price either monthly amounts or specific payments in specific months for the various Operation Service activities in the Schedule of Payments/Cost Matrix for each Control Centre.

The Contractor shall be bound by the prices in the Schedule of Payments/Cost Matrix submitted in its Tender, including, without limitations, all items and amounts stipulated therein. All Cost

Matrix entries which are submitted by the Tenderer as formulae will be changed to values at the commencement of the Contract.

The Employer's Representative will, however, have the right to not certify for payment a monthly price in the Schedule of Payments/Cost Matrix if the service covered by the item has not been rendered by the Contractor.

In the case of services covered by payment items that are not monthly but once-off or where payment is indicated to take place when that specific service has been rendered, the Contractor's estimate in its tendered Schedule of Payments/Cost Matrix as to the month in which payment will take place will be subject to change to reflect the month during which the service was, in fact, rendered satisfactorily.

2.2.2 Part 2: Adjustments to the Schedule of Payments

The main categories of adjustments to the Monthly Operation Service Payments of the Contractor are as follows:

2.2.2.1 Adjustments of the Contractor's Monthly Payment to provide for Variations in Variable Cost resulting from actual traffic volumes being different from predicted traffic volumes: These adjustments will be in Base Date South African Rand and will, therefore, be subject to CPI increases. The adjustments are discussed in Clause 4 of Part A of this Document.

2.2.2.2 Adjustments of the Contractor's Monthly Payment to provide for Toll Income Loss resulting from Traffic Loss.

3. PAYMENT METHODOLOGY: DESIGN-BUILD

3.1 Overview of Payment Methodology

Payment in respect of the Design-Build works shall be made based on the measurement of the work on a monthly basis in terms of the Design Build Schedule of Payments/Cost Matrix contained in the Project Document (Volume 3). The Schedule of Payments/Cost Matrix provides for the various categories of work that will be measured and paid for on the following bases:

3.1.1 Monthly payments: These are payment items that are paid monthly, based on progress and measurements.

3.1.2 Milestone Testing regime: These are payment items for the Toll System that are dependant on the Contractor achieving the various milestone testing in accordance with progressive milestone percentages.

3.1.3 Individual Payment Items:

- (a) Items supplied and implemented but not linked to milestone testing: These payment items are measured and tested and paid upon successful completion.
- (b) If triggered items: These are If triggered payment items that are implemented on the Employer's instruction and are measured, tested and paid upon completion.
- (c) Provisional Sum items: These are payment items that are Provisional Sum items that are implemented only after the Employer's instruction and the acceptance of the Contractor's proposals and rates by the Employer. These payment items are measured, tested and paid upon completion.

3.2 Phasing of the Design Build Sections

The phasing of the Design Build sections are described in the Project Documents.

3.3 Monthly Payment Items and Individual Payment Items

In these cases, the Employer shall approve payment on the successful delivery and installation of an individual payment item. Such payments are to be included in the monthly payments, subject to the conditions for interim payment certificates, as specified in the Project Document (Volume 3). The individual payment items, will be checked and tested (where applicable) by the Employer's Representative and approved by the Employer before any payment is made.

3.4 Toll System Payments items linked to milestone testing

In the Design-Build Period, the payment items related to the procurement, development and installation of the Toll System are linked to various milestone tests as indicated in the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The various payment items that are applicable to the milestone tests are indicated in the table below. The testing of this part of the Works shall be performed in accordance with a formal and defined testing regime as described in the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

Table 1-1 below shows, the testing milestones and the percentage payment for the relevant payment item in the Schedule of Payments/Cost Matrix on completion of the various milestone tests.

TABLE 1.1 MILESTONE DEPENDANT ITEMS BEFORE LANE EXPANSION / REVERSIBLE LANE CREATION							
Payment Item	Milestone Description vs Toll System Component	Functional Specification	Hardware Verification	Combined Software Factory Acceptance Test (SFAT)	Functional Compliance (FC)	Provisional Compliance (PC)	System Compliance
B-2001	Provision of Toll System Software and Hardware: Back-Office System.	10 % of the total of the Payment Items	20%	15%	15%	25%	15 % of the total of the Payment Items
B-2002	Provision of Toll System Software and Hardware: Video Grabbing System (VGS)		20%	15%	15%	25%	
B-2003	Provision of Toll System Software and Hardware: Queue Length Monitoring System (QLS)		20%	15%	15%	25%	
B-2004	Provision of Toll System Software and Hardware: Data Concentrate System (DCS)		20%	15%	15%	25%	
B-2005	Provision of Toll System Software and Hardware: Provision of Back Office Servers storage hardware and archive system complete		20%	15%	15%	25%	
B-2006	Additional software and licences complete		20%	15%	15%	25%	
B-3001	Provision of Toll System Software and Hardware: AVC System for Mixed Manual/ETC Lanes and/or Dedicated ETC Lanes.		20%	15%	15%	25%	
B-3002	Provision of Toll System Software and Hardware: Mixed Manual /ETC Lanes for single direction Lanes		20%	15%	15%	25%	
B-3003	Provision of Toll System Software and Hardware: Dedicated ETC Lanes		20%	15%	15%	25%	
B-3006	Provision of Toll System Software and Hardware: Implementation of Queue Length Cameras.		20%	15%	15%	25%	
B-3007	Provision of Toll System Software and Hardware: Implementation of VGS		20%	15%	15%	25%	

3.5 Retention

The percentage (%) to be deducted for retention in respect of the monthly payments will be in accordance with Particular Conditions of Contract (Volume 1 Book 2).

3.6 Documentation delivery

The Table 3.1 below provides the delivery requirements of the documentation to be provided by the Contractor and indicates which payment milestones will be subject to the delivery of the documents and acceptance by the Employer of the documentation.

TABLE 3.1: DOCUMENTATION DELIVERY		
Documentation	Payment Milestone that is subject to completion of applicable documentation	Delivery requirement
Document configuration management system, including a master record index	Functional Specifications	Not later than 60 days after Commencement Date, or as specified in Project Document (Volume 3), Part C3: Scope of Works.
System Functional Specifications	Functional Specifications	As per the Contractor's programme, but not later than 60 days after Commencement Date, or as specified in Project Document (Volume 3), Part C3: Scope of Works.
Software and hardware architecture documents	Software FAT	As per the Contractor's programme, but not later than 30 days before Factory Acceptance Testing.
Hardware Factory Acceptance Test (HFAT) procedures	Hardware verification	As per the Contractor's programme, but no less than 30 days before the Employer's Representative is required to attend the Factory Acceptance Testing.
System Factory Acceptance Test (SFAT) procedures	Functional Compliance	As per the Contractor's programme, but not less than 30 days before the Employer's Representative is required to attend the SFAT.

TABLE 3.1: DOCUMENTATION DELIVERY		
Documentation	Payment Milestone that is subject to completion of applicable documentation	Delivery requirement
Site Acceptance Test (SAT) procedures	Functional Compliance	As per the Contractor's programme, but not less than 30 days before the Employer's Representative is required to attend the SAT.
Operation and Maintenance Plan	System Compliance	As per the Contractor's programme, but not less than 30 days after Functional Compliance.
System user manuals and system maintenance manuals (for applicable Section)	System Compliance	As per the Contractor's programme, but not less than 30 days after Functional Compliance.
Software training manuals for the Toll lanes, BO, ORT RSS, ORT Back Office System, TCH and VPC interfaces (for applicable Section), other systems (e.g. LSDU, DCS, Queue Length Monitor, VGS, etc)	System Compliance	As per the Contractor's programme, but not less than 30 days after Functional Compliance.
Method Statements for all installations	Functional Compliance	As per the Contractor's programme, but not less than one month before installation of any equipment.
Software executable release plan	Ad-hoc	For the duration of the Design-Build Period
As-built Drawings	Release of Retention	Not later than four months after each Section Commissioning Certificate was issued.
Escrow submission and verification (first submission)	Release of Retention	Not later than four months after the Commissioning Certificate was issued.

4. ADJUSTMENTS OF CONTRACTOR'S MONTHLY PAYMENT TO PROVIDE FOR VARIATIONS IN VARIABLE COST

4.1 Components of the Contractor's Contract Price

Table 4-1 below shows the various components of the Contract Price payable to the Contractor for the execution, completion and operation of the Works and how the Contract Price components are made up.

TABLE 4-1 COMPOSITION OF THE CONTRACT PRICE PAYABLE TO THE CONTRACTOR		
Contract Price	Operation Service Payment (OPEX)	Fixed cost
		Variable cost
	Design-Build Payment (CAPEX)	

The payments to the Contractor for any particular month of the Contract Period shall be the sum of the Operation Service Payment (OPEX) and the Design-Build Payment (CAPEX) for that month, as detailed in the relevant sections of the Schedule of Payments/Cost Matrix.

This is reflected in the following formula:

$$Payments\ to\ Contractor_{month\ x} = OPEX_{month\ x} + CAPEX_{month\ x}$$

Where x = month 1 to month n and

n = number of months in the Contract Period

$OPEX_{month\ x}$ = Payment to the Contractor for Operation Service in month x

$CAPEX_{month\ x}$ = Payment to the Contractor for Design-Build in month x

4.2 Fixed and Variable Components of the Operation Service Payment (OPEX)

For the purpose of determining the adjustments of the Contractor's Monthly Payment to provide for variations in variable cost resulting from actual traffic volumes being different from predicted traffic volume, the Operation Service Payment (OPEX) for any particular month of the Contract Period shall be considered to be the sum of its fixed cost component and its variable cost component, i.e.:

$$OPEX = \text{Fixed OPEX cost component} + \text{Variable OPEX cost component}$$

More specifically, the fixed and variable cost components are described below:

4.2.1 Fixed OPEX Cost Component

- 4.2.1.1 The fixed cost component of the OPEX shall include all operating expenditure that do not vary with traffic volumes. The fixed cost component of the OPEX shall be tendered by the Contractor in its Schedule of Payments/Cost Matrix for each Control Centre and for each month of the Contract Period, and the Contractor shall take all risks related to its choice of the fixed cost component as a percentage of the OPEX in the Schedule of Payments/Cost Matrix in the Project Document (Volume 3). In the event of a change in the tendered monthly OPEX for any reason whatsoever, for example as a result of an “if triggered” Schedule of Payments/Cost Matrix item not being activated at the time indicated in the Schedule of Payments/Cost Matrix, then the fixed cost component for the month will be recalculated by applying the following formula:

$$\text{Fixed cost component of OPEX for the month} = \text{Revised OPEX for the month} - \text{the Revised variable cost components of OPEX for the month for all Vehicle Classes, as calculated in Clause 4.2.2}$$

4.2.2 Variable OPEX Cost Component

- 4.2.2.1 A variable cost component per Vehicle Class, including all operating expenditure that vary with traffic volumes. The total variable cost component of OPEX will then be equal to the sum of the variable cost components for each Vehicle Class.
- 4.2.2.2 The variable cost component per Vehicle Class shall be tendered by the Contractor in its Cost Matrix for each Control Centre for each month of the Contract Period and the sum of the variable cost components for all Vehicle Classes at each Control Centre, as tendered in the Schedule of Payments/Cost Matrix, shall not be more than 40 (forty) percent of the OPEX for any month of the Contract Period. The Contractor shall take all risks related to its choice of the variable cost component as a percentage of the OPEX in the Schedule of Payments/Cost Matrix in the Project Document (Volume 3). In the event of a change in the tendered monthly OPEX for any reason whatsoever, for example as a result of an “if triggered” Schedule of Payments/Cost Matrix item not being activated at the time indicated in the Schedule of Payments/Cost Matrix, then the variable cost component for the month will be recalculated by applying the tendered variable cost for each Vehicle Class as a ratio of the OPEX to the revised OPEX for the relevant month, in order to arrive at revised variable cost components for each Vehicle Class for the

relevant month. The following formula indicates the calculation of the revised variable cost component for each Vehicle Class for a month:

$$\begin{aligned} & \text{Revised variable cost component for a month for a month for a Vehicle class} \\ &= \frac{\text{Tendered variable cost for the Vehicle}}{\text{Tendered OPEX for the month}} \times \text{Revised OPEX for the month} \end{aligned}$$

4.3 Adjustment of Variable Cost Component for Differences between Actual and Predicted Traffic Volume

- 4.3.1 The tendered values of the various components of the Operation Service Payment (OPEX) will be expressed in Base Date Rand. These tendered values are, however, based on the predicted traffic volumes to be processed at each Virtual Toll Plaza. In order to allow for the fact that actual traffic volumes will differ from predicted traffic volumes, the variable cost component of the OPEX shall be adjusted by multiplying this cost component for each Vehicle Class by the actual traffic volume per Vehicle Class and dividing by the predicted traffic volume per Vehicle Class. These adjustments will be calculated by means of the following formula:

$$\begin{aligned} & \text{Adjustment of Variable OPEX Base Date Rand} \\ &= \frac{\sum_{a:1 \rightarrow 4}}{\left[\frac{\text{Actual traffic volume (Current months)}_a}{\text{Predicted traffic volume (tender stage)}_a} \right]} \\ & \chi \text{ Variable OPEX Base Date Rand for Class } a \\ & \text{whereas } 1 \rightarrow 4 = \text{Vehicle Class, varying from Class 1 to Class 4} \end{aligned}$$

- 4.3.2 The rationale for the provision of a variable cost component of the OPEX is to present the Contractor with the opportunity to recover all costs associated with an increase of the traffic in any Vehicle Class (relative to the predicted traffic volumes), whatever the cause of the increase of traffic, and to present the Employer with the opportunity to obtain the cost savings associated with a decrease of the traffic in any Vehicle Class (relative to the predicted traffic volumes), whatever the cause of the decrease of traffic (excluding, however, payment for zero traffic conditions which are covered in Clause 4.6). It is, therefore, incumbent upon the Contractor to price the variable cost per Vehicle Class accurately in order to provide for the correct remuneration of the Contractor in the event of any fluctuation of the traffic volumes of a particular Vehicle Class. The Employer will not entertain any requests for additional remuneration in the event of an incorrect pricing of the variable cost per Vehicle Class.

4.4 Tender Options in respect of fixed and variable cost components of OPEX at higher or lower traffic volume ranges than those predicted

- 4.4.1 Should the Contractor consider that the amounts it is selecting as the fixed cost component of the OPEX in its Tender underestimate the fixed OPEX at higher traffic volume ranges or overestimate the fixed OPEX at lower traffic volume ranges than those occurring or predicted to

occur at the Virtual Plazas that form part of a Control Centre, then it shall be incumbent upon the Contractor to indicate the combined traffic volume ranges at all Virtual Toll Plazas that form part of a Control Centre to which its tendered fixed OPEX will apply as well as to provide tendered fixed OPEX and tendered variable OPEX for each Vehicle Class for all Virtual Toll Plazas that form part of a Control Centre for all other traffic volume ranges. Should a Contractor not provide such tendered fixed and variable OPEX for all other traffic volume ranges, then it will be deemed that the tendered monthly fixed and variable OPEX shall apply to all traffic volume ranges.

- 4.4.2 In order to facilitate the pricing of these possible additions or reductions in the fixed and variable components of the OPEX, the Schedule of Payments/Cost Matrix makes provision for the Contractor to fill in the combined monthly traffic volumes of all the Virtual Toll Plazas under each Control Centre at which the fixed and variable OPEX respectively would change as well as the increase or decrease of the fixed and variable cost components of the OPEX that will apply if the actual monthly traffic volumes are above or below the selected monthly traffic volumes respectively. The Contractor is free to select different monthly traffic volume ranges for the fixed and variable OPEX components respectively. These increases or decreases in costs will be included into the Schedule of Payments/Cost Matrix as “if triggered” items which would not form part of the OPEX and of the Monthly Payments to the Contractor unless the traffic volumes occur to which the increases or reductions of the fixed and variable cost components of OPEX will apply.
- 4.4.3 In the case of higher traffic volume ranges and of the fixed cost component of OPEX, the increase indicated should be a Rand amount that will represent the additional fixed OPEX over and above the fixed OPEX applicable to the traffic volumes below the lower threshold of the traffic volume range to be filled in by the Tenderer in the Cost Matrix. The fixed OPEX applicable to the traffic volumes below the lower threshold of the traffic volume range filled in by the Contractor in the Cost Matrix will be the tendered fixed OPEX in Base Date Rand revised as indicated in Clauses 4.1, 4.2 and 4.3 of this document and as priced on a monthly basis in the Schedule of Payments/Cost Matrix, but still subject to conversion from Base Date Rand to current Rand. Similar logic applies to a decrease in the fixed OPEX as a result of a decrease in traffic volumes to levels indicated by the Contractor in the Cost Matrix.
- 4.4.4 The following formula summarises the determination of the fixed OPEX for a month during which traffic volumes in the higher traffic volume range filled in by the Contractor in the Cost Matrix actually occur:

Fixed OPEX with traffic volume for the month in tendered higher monthly traffic volume range (in Base Date Rand)
 = Tendered fixed OPEX for the month + Tendered change in fixed OPEX at higher monthly traffic volume range (both in Base Date Rand)

4.4.5 In the case of higher traffic volume ranges and of the variable cost components of OPEX, the change in variable OPEX indicated in the Cost Matrix shall be the tendered variable monthly OPEX in R per 1 000 vehicles over and above (or below) the variable OPEX applicable to the traffic volumes below the lower threshold of the traffic volume range to be filled in by the Tenderer in the Schedule of Payments/Cost Matrix. Note that the R per 1 000 vehicles rate shall only be applied to the number of vehicles above the lower threshold of the traffic volume range to be filled in by the Contractor in the Schedule of Payments/Cost Matrix.

4.4.6 The variable OPEX applicable to the traffic volumes below the lower threshold of the traffic volume range filled in by the Contractor in the Schedule of Payments/Cost Matrix will be the tendered variable OPEX, revised as indicated in Clauses 4.1, 4.2 and 4.3 of this document and as priced on a monthly basis in the Schedule of Payments/Cost Matrix, but still subject to conversion from Base Date Rand to current Rand.

4.4.7 The following formula summarises the determination of the variable OPEX for a month during which traffic volumes in the higher traffic volume range filled in by the Contractor in the Schedule of Payments/Cost Matrix actually occur:

Variable OPEX with traffic volume for the month in the tendered higher monthly traffic volume range (in Base Date Rand)
= Sum for all Toll Classes of
[Tendered variable OPEX for the Vehicle Class and month + {(Actual monthly traffic – Lower threshold monthly traffic)/1000 x tendered variable unit OPEX per 1000 vehicles per Vehicle Class}]

4.4.8 where Lower threshold monthly traffic = the lower monthly traffic volume threshold of the higher traffic volume range filled in by the Contractor in the Cost Matrix.

4.4.9 If the Contractor considers that the provision to price for possible additional or reduced fixed or variable costs at higher or lower traffic volume ranges does not fit its view of how these costs vary at different traffic volume ranges (for example, if it wishes to tender for these costs at each Virtual Toll Plaza or for more traffic volume ranges than provided for in the Cost Matrix), it will be incumbent upon the Contractor to change the Cost Matrix to suit its view and to price appropriately for the fixed and variable components of the OPEX at higher or lower traffic

4.5 Provision in OPEX for income lost

4.5.1 The Operator shall provide in its OPEX for all income lost as a result of Run-through Violations, Exempt User passages, Frequent User Discounts, Local User Discounts, Local Public Transport Operator Discounts, Operator discounts and No-Payment transactions.

4.5.2 The Operator shall take all risk associated with and make allowance for any fluctuation in its OPEX as a result of fluctuations (adjustments) in the income lost as contemplated in Clause 4.5.1 during the Contract Period. Subject to Clause 4.5.3, under no circumstances whatsoever will the Operator be entitled to any additional payment or have any other claims against the Employer as a result of the income adjustments being different at any point during the Contract Period from the entries in the Cost Matrix, except as provided for in the relevant payment items in the Schedule of Payments (A-3000 series).

4.5.3 Provided that the Operator is able to prove to the Employer that sufficient steps were taken to limit fraudulent Local User toll payment transactions, Frequent User toll payment transactions, Local Public Transport Operator toll payment transactions and Exempt User passages, the Operator shall not be liable for any increase in the value of Local User Discounts, Local Public Transport Operator Discounts and Exempt User passages (each considered separately) in a specific month (the "Current Discount") in excess of 10% (ten percent) respectively of the value of Local User discounts, Frequent User Discounts, Local Public Transport Operator Discounts and Exempt User passages (all considered jointly) during the equivalent month in the year preceding the Commencement Date, increased by the year on year growth in AGI for all months after the first year of the Works Period (the "Historic Discount"). In the event that the Current Discount is more than 10% (ten percent) less than the Historic Discount, the value of the difference between the Historic Discount less 10% (ten percent) and the Current Discount shall be for the benefit of the Employer which amount shall be deducted from the OPEX. This principle shall be applied per control centre.

Sufficient steps will be deemed to have been taken if the following have occurred:

4.5.3.1 If the Operator has, as part of its Operations Manual, submitted procedures for the processing and approval or rejection of applications for Local User Discounts, Public Transport Operator Discounts and exemption from toll payment and for the implementation, management and control of Local User toll payment transactions, Local Public Transport Operator toll payment transactions and Exempt User passages and these procedures have been approved by the Employer's Representative;

4.5.3.2 If, in the course of the execution of the contract, the Employer's Representative performs a 6-monthly audit of the procedures and the audit report applicable to the relevant months indicates that sufficient steps have been taken to limit fraudulent Local User toll payment transactions, Local Public Transport Operator toll payment transactions and Exempt user passages.

4.5.4 The historic values of Run-through Violations, Exempt User passages, Frequent User Discounts, Local User Discounts, Local Public Transport Operator Discounts, Debit Card Discounts, Operator Discounts and No-Payment transactions shall be as provided in the Project Document (Volume 3).

4.6 Adjustment of Contractor's Monthly Payment as a result of Zero Traffic Conditions

- 4.6.1 During the Contract Period, it may, for reasons that are beyond the reasonable control of the Contractor, be temporarily impossible for it to process traffic through any one or more of the Toll Plazas as contemplated in the Project Document (Volume 3). Such conditions may include:
- 4.6.1.1 an event occurring at or near the Toll Road which temporarily prevents the passage of vehicles on the Toll Road; or
- 4.6.1.2 an event causing the Toll Plazas to be temporarily by-passed by traffic.
- 4.6.2 In the event of zero traffic conditions occurring during any month which are not caused directly or indirectly by the Contractor, the Employer shall pay to the Contractor a percentage of the daily average OPEX of the previous 12 (twelve) months for each full day during which zero traffic conditions persist.
- 4.6.3 The percentage payment applicable in terms of Clause 4.5.2 hereof shall be specified in the Project Document (Volume 3).

5. ADJUSTMENTS OF CONTRACTOR'S MONTHLY PAYMENT TO PROVIDE FOR TOLL INCOME LOSS RESULTING FROM TRAFFIC LOSS

5.1 Scope

The scope of this section is to describe the obligation of the Contractor to pay the Actual Gross Income (AGI), as defined in Clause 5.2 below, to the Employer and to indicate the methodology to determine the adjustments of the Contractor's Monthly Payment in the event that there is a loss in the Actual Gross Income, with the daily traffic volume yielding the AGI determined by means of a Decision Tree.

5.2 Actual Gross Income (AGI) and Contractor's Obligations in respect of AGI

- 5.2.1 The AGI for a specific month per Virtual Toll Plaza shall be calculated using the applicable traffic data source as determined in terms of Clause 5.3.
- 5.2.2 The AGI shall equal the sum for all Vehicle Classes of the number of vehicle passages through a Virtual Toll Plaza by a specific Vehicle Class during a month multiplied by the applicable Toll Tariff for that Vehicle Class and month

$$AGI = \sum_{a=1}^4 V_{actual\ a} \times T_{actual\ a}$$

where

$V_{\text{actual } a}$ = actual monthly traffic volume for each Vehicle Class passing through a Virtual Toll Plaza, determined in terms of Clause 5.3 below

$T_{\text{actual } a}$ = actual Toll Tariff for each Vehicle Class during that month a ; and

$a_{1 \rightarrow 4}$ = Vehicle Class, varying from Class 1 to Class 4.

5.2.3 The Contractor shall be responsible for an amount equal to the AGI for all Virtual Toll Plazas included into the Agreement to be paid to the Employer on a monthly basis. This payment shall consist of two parts:

5.2.3.1 The one part of the payment shall be the payment collected by the Contractor by means of cash and credit card transactions for all the non-Electronic Toll Collection (ETC) transactions.

5.2.3.2 The other part of the payment shall be the payments to the Joint Account of the Contractor and Employer for each Control Centre by the Transaction Clearinghouse (TCH) for all ETC Transaction Records submitted to the TCH by the Contractor. The Contractor's responsibility in this case is, therefore, to submit all Compliant ETC Transaction Records to the TCH.

5.3 Data Sources

5.3.1 One of five data sources shall be used to represent the daily traffic volumes per Vehicle Class that pass through each Virtual Toll Plaza for the purpose of the determination of the AGI, as indicated in Clause 5.2. This data shall be used to determine the Actual Gross Income due by the Contractor to the Employer and shall be applied to each of the above-mentioned Virtual Toll Plazas on a per Day basis.

5.3.2 The five data sources are as follows and the data referred to shall be the traffic volumes for a Conventional or Hybrid Toll Plaza or the Conventional or Hybrid section of a Conventional/ORT Toll Plaza and shall **exclude** the data from the ORT section of a Conventional/ORT Toll Plaza:

5.3.2.1 the parallel data stream from the AVC in terms of vehicles per Vehicle class per Day;

5.3.2.2 the traffic data recorded in the Toll Plaza MIS in terms of vehicles per Vehicle Class per Day;

5.3.2.3 the traffic data recorded by the audit Traffic Event Logger (TEL1) located closer to the Toll Plaza in terms of vehicles per Vehicle Class per Day. TEL1 is defined as the TEL station closer to the Toll Plaza; and

- 5.3.2.4 the traffic data recorded by the audit Traffic Event Logger (TEL2) located further from the Toll Plaza in terms of vehicles per Vehicle Class per Day. TEL2 is defined as the TEL station further from the Toll Plaza.
- 5.3.2.5 historic traffic data.
- 5.3.3 Where the parallel data stream from the AVCs is used to represent actual traffic volumes, the data transmitted by the Operator to the Employer's Integrate Toll Information System (ITIS) on a daily basis shall be used unaltered.
- 5.3.4 Where the traffic data recorded by the MIS is used to represent actual traffic volumes, the validated MIS data transmitted by the Operator to the Employer's ITIS on a daily basis shall be used unaltered.
- 5.3.5 The TELs shall be operated and maintained by a third party contractor in accordance with a quality assurance system specified by the Employer to ensure TEL data integrity. The TEL quality assurance system shall be included in the Project Document (Volume 3).
- 5.3.6 In order to assist the Contractors to assess the potential differences in the Actual Gross Income due to the Employer that may result from the above-mentioned data sources, available historic data from the data sources will be included in the Project Document (Volume 3). Since the data generated by the MIS and the AVC is, however, dependent upon the quality of the Operations and Maintenance of an operating company, the historic data supplied in the Project Document (Volume 3) do not imply any guarantee from the Employer regarding the potential differences in the Actual Gross Income due to the Employer that may result from the above-mentioned data sources.
- 5.3.7 The specific data source to be used to determine the traffic volumes for the purpose of determination of the AGI for a Day shall be determined by applying the decision tree in Clause 5.4 for that Day.
- 5.3.8 Where historic data is used to represent actual traffic data, the Employer's Representative will use data for a similar day(s) either in the preceeding 12 months (with a preference for more recent data), or for a corresponding period in the pervious calendar year (for example, Easter Monday). The Employer's Representative will, in his/her sole discretion, determine the appropriate day or period and, if using data from 12 months ago, the appropriate traffic growth rate to be applied to the historic data
- 5.3.9 The Employer's Representative will verify/validate the integrity of data from the different sources and will, in his/her absolute discretion, indicate to ITIS whether a specific data source should be used as a potential source of payment traffic for a specific Day.

5.4 Application of The Decision Tree

The decision tree to be applied is shown in Figure 3-1. Terms used in the decision tree shall have the following meaning or shall be determined in the following ways:

5.4.1 Determination of MIS and AVC Income

The MIS or AVC income of a Virtual Toll Plaza shall be equal to the sum for all Vehicle Classes of the number of vehicle passages per Day for a Vehicle Class as recorded by the MIS or AVC respectively, multiplied by the Toll Tariff for the relevant Vehicle Class.

$$MIS \text{ or } AVC \text{ income} = \sum_{a=1}^4 V_{MIS \text{ or } AVC}^a \times T_{actual}^a$$

Where

$V_{MIS \text{ or } AVC}^a$ = traffic volume for Vehicle Class a passing through a Virtual Toll Plaza for a Day, as recorded by the MIS or AVC

T_{actual}^a = actual Toll Tariff for Vehicle Class a during that Day; and

a = Vehicle Class, varying from Class 1 to Class 4

$1 \rightarrow 4$

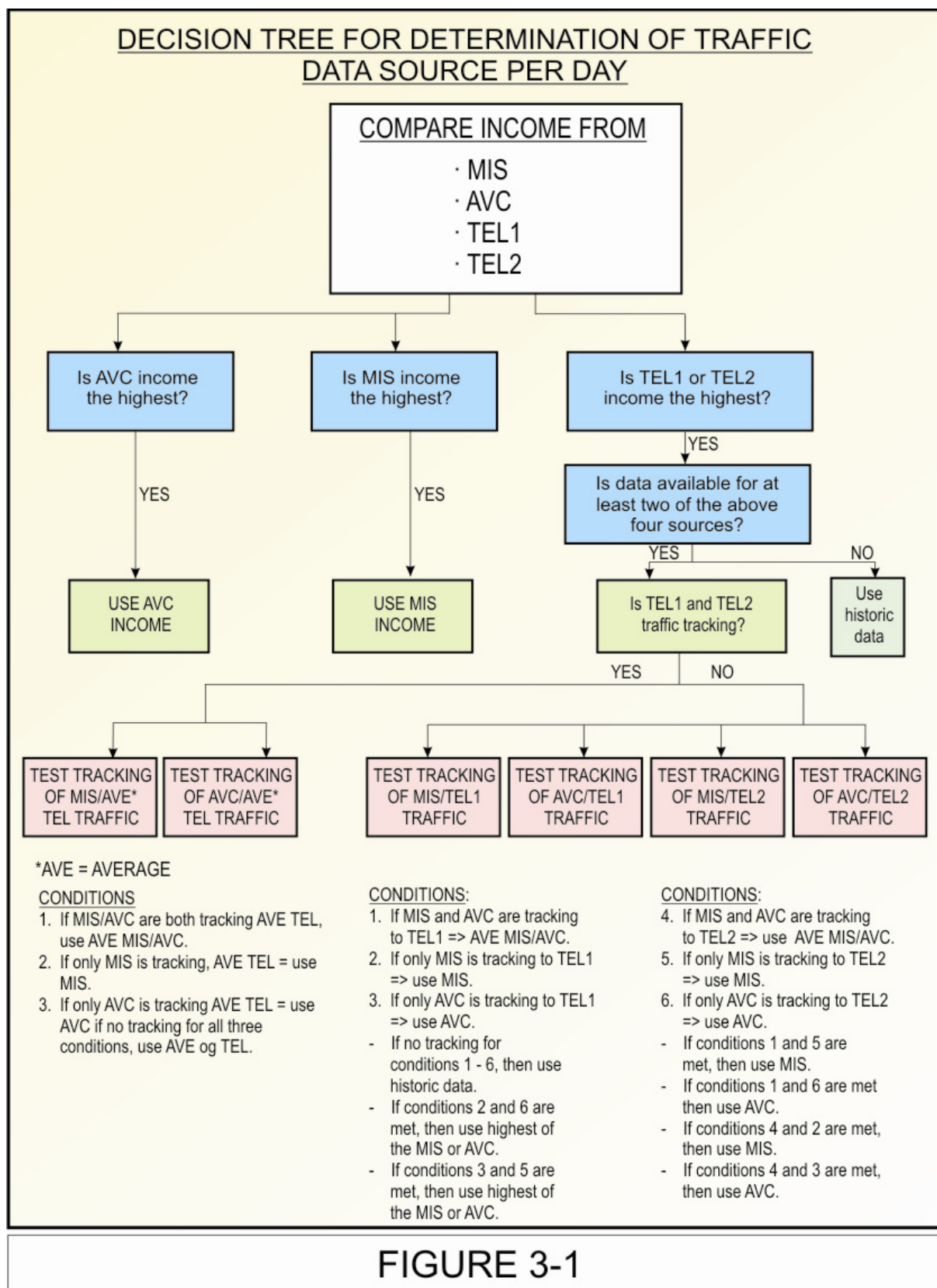


FIGURE 3-1

5.4.2 Determination of TEL 1 and TEL 2 income

5.4.2.1 The TEL1 or TEL2 income of a Virtual Toll Plaza shall be calculated by using the total traffic per Day for all Vehicle Classes, as recorded by TEL1 or TEL2. The traffic volume per Day for each Vehicle Class shall, however, be calculated as follows for TEL 1 and TEL 2:

- (d) If the AVC accuracy has been proven to be acceptable within the guidelines of the Standard Specification for Operations and Maintenance for CTROM Projects: Toll Systems (Volume 2 Book 4a), then the traffic volume of each Vehicle Class Day as a percentage of the sum of the traffic volumes of all Vehicle Classes per Day, as recorded by the AVC, will be applied to the total traffic per Day for all Vehicle Classes, as recorded by TEL1 or TEL2 respectively, in order to determine the traffic volume of each Vehicle Class per Day for either TEL 1 or TEL 2.
- (e) If the AVC accuracy has not been proven to be acceptable within the above-mentioned guidelines or if the AVC traffic volumes are not available for a specific Day, then the traffic volume of each Vehicle Class per Day as a percentage of the sum of the traffic volumes of all Vehicle Classes for the same Day, as recorded by the MIS, will be applied to the total traffic per Day for all Toll Classes, as recorded by TEL1 or TEL2 respectively, in order to determine the traffic volume of each Vehicle Class per Day for either TEL 1 or TEL 2.

5.4.2.2 The TEL1 or TEL2 income of a Virtual Toll Plaza shall be equal to the sum for all Vehicle Classes of the number of vehicle passages per Day for a Vehicle Class, as determined in terms of Clause 5.4.2.1 above, multiplied by the Toll Tariff for the relevant Vehicle Class.

$$TEL\ 1\ or\ TEL\ 2\ income = \sum_{a=1}^4 V_{TEL1/TEL2}^a \times T_{actual\ a}$$

adj.AVC/MIS

Where

$V_{TEL1/TEL2}^a$ = traffic volume for Vehicle Class a passing adj.AVC/MIS through a Virtual Toll Plaza for a Day, based on the total traffic as recorded by the TEL1 or TEL2 respectively with the traffic volume per Day per Vehicle Class calculated as indicated in Clause 5.4.2.1 above (therefore, adjusted)

$T_{actual\ a}$ = actual Traffic for Vehicle Class a during that Day and

a = Vehicle Class a, varying from Class 1 to Class 4

1→4

5.4.2.3 The tracking algorithms in the decision tree shall be applied for all Vehicle Classes combined and not individually.

5.4.3 Conditions for Application of Decision Tree

The following conditions shall apply when applying the decision tree:

5.4.3.1 **TEL1/TEL2 tracking:** The following algorithm shall be applied to determine whether the two TELs (TEL1 and TEL2) track each other within acceptable limits for a specific Day:

$$x\% \geq 100 \times \frac{ABS/TEL1 \text{ traffic} - TEL2 \text{ traffic}/}{MAX/TEL1, TEL2 \text{ traffic}}$$

where x% = 1,0% when the sum of the traffic volumes of all Vehicle Classes at a Virtual plaza for a Day is equal to or more than 200 vehicles per day

and x% = 2,0% when the sum of the traffic volumes of all Vehicle Classes at a Virtual Plaza for a Day is equal to or more than 100 vehicles per day but less than 200 vehicles per day

and x% = 5,0% when the sum of the traffic volumes of all Vehicle Classes at a Virtual Plaza for a Day is less than 100 vehicles per day

5.4.3.2 **TEL1/MIS and/or TEL2/MIS tracking:** The following algorithms shall be applied to determine whether either or both TELs (TEL1 and/or TEL2) track the MIS within acceptable limits for a specific Day:

$$x\% \geq 100 \times \frac{ABS/TEL1 \text{ traffic} - MIS \text{ traffic}/}{TEL1 \text{ traffic}}$$

OR

$$x\% \geq 100 \times \frac{ABS/TEL2 \text{ traffic} - MIS \text{ traffic}/}{TEL2 \text{ traffic}}$$

OR

$$x\% \geq 100 \times \frac{ABS/AVE TEL * \text{traffic} - MIS \text{ traffic}/}{AVE TEL * \text{traffic}}$$

* AVE TEL = AVERAGE OF TEL1 AND TEL2

where x% is as defined in Clause 5.4.3.1 above.

- 5.4.3.3 **TEL1/AVC and/or TEL2/AVC tracking:** The following algorithms shall be applied to determine whether either or both TELs (TEL1 and/or TEL2) track the AVC within acceptable limits for a specific Day:

$$x\% \geq 100 \times \frac{ABS/TEL1 \text{ traffic} - AVC \text{ traffic}}{TEL1 \text{ traffic}}$$

OR

$$x\% \geq 100 \times \frac{ABS/TEL2 \text{ traffic} - AVC \text{ traffic}}{TEL2 \text{ traffic}}$$

OR

$$x\% \geq 100 \times \frac{ABS/AVE \text{ TEL traffic} * AVC \text{ traffic}}{AVE \text{ TEL} * \text{traffic}}$$

* AVE TEL = AVERAGE OF TEL1 AND TEL2

where x% is as defined in Clause 5.4.3.1 above.

6. ADJUSTMENTS TO THE CONTRACTOR'S MONTHLY PAYMENT IN RESPECT OF KEY PERFORMANCE INDICATORS

A full specification of the derivation of the Contractor's total Performance Score for a month in respect of Key Performance Indicators is provided in the Standard Specifications for Operations and Maintenance of CTROM Projects: Performance Measurement (Volume 2 Book 6a).

The total Performance Score of the Contractor for a month, whether positive or negative, shall be converted to an adjustment of the Contractor's Monthly Payment in South African Rand terms on the basis that 100 points = 1% of the Contractor's Monthly Payment at the relevant Control Centre in Base Date Rand. This Rand value of the Adjustment to the Contractor's Monthly Payment in respect of Key Performance Indicators shall be adjusted for inflation by means of the following formula:

$$Monthly \text{ Adjustment}_{CR} = \frac{Actual \text{ CPI (current month)}}{Base \text{ Date CPI (tender stage)}} \times Monthly \text{ Adjustment}_{BDR}$$

where

CPI = Consumer Price Index

Monthly Adjustments_{CR} = the monthly adjustment of the Contractor's Payment in respect of KPIs in current South African Rand, i.e. after applying the inflation adjustment factor

Monthly Adjustments_{BDR} = the monthly adjustment of the Contractor's Payment in respect of KPIs in Base Date South African Rand.

The same conditions in respect of the CPI listed in Clause 1.9 of the Pre-ambble to the Schedule of Payments in Part B of this Document shall also apply to the CPI in this Clause.

The adjustment of the Contractor's Monthly Payment in respect of Key Performance Indicators, i.e. as described in the Standard Specifications for Operations and Maintenance of CTROM Projects: Performance Measurement (Volume 2 Book 6a) and after adding the above-mentioned monthly CPI adjustment, shall be capped at a maximum value of 30% of Section A of the Schedule of Payments, i.e. the Schedule of Payments for the Operation Service activities (including the monthly CPI adjustment), minus any part of Provisional Sums in Section A of the Schedule of Payments spent during the relevant month and minus the amount in respect of payment item Series A-1000 spent during the relevant month (including the monthly CPI adjustment of Series A-1000 expenditure). The 30% cap mentioned above shall not include or apply to any of the other adjustments to the Operation Service Schedule of Payments, as described in Clauses 4 and 5 of this document.

7. COST OF TCH SERVICES

7.1 Description of TCH Services

The TCH services that have to be used by the Contractor to achieve interoperable Electronic Toll Collection are described in Employers Requirements.

The complete TCH specifications with which the Employer-appointed operator of the TCH will have to comply and which describe the services to be offered by the TCH are provided in the following volumes:

- 7.1.1 Project Document (Volume 3) Book 13A: Contract No. NRA N.001-201-2008/1: Procurement of an Open Road Tolling System in the Gauteng Province, South Africa and A National Transaction Clearing House – Transaction Clearing House System Specifications (April 2009); and
- 7.1.2 Project Document (Volume 3) Book 13B: Contract No. NRA N.001-201-2008/1: Procurement of an Open Road Tolling System in the Gauteng Province, South Africa and A National Transaction Clearing House – Transaction Clearing House Operations Specifications (April 2009).

7.2 Cost of TCH Services to the Contractor

The cost of TCH Services to the Contractor will be divided into the following categories and will initially be as follows:

- 7.2.1 In respect of fees/commissions payable to banks and to other providers of payment:
- 7.2.1.1 1.85% or other % specified in the Project Document (Volume 3) of the value of the relevant ETC transactions on the route in the case of credit card payments; and
- 7.2.1.2 0.85% or other % specified in the Project Document (Volume 3) of the value of the relevant ETC transactions on the route in the case of debit card payments;
- 7.2.2 In respect of fees/commissions payable to payment channels such as e-commerce gateway, retailers with point of sales terminals, 7,5% or other % specified in Project Document (Project Document (Volume 3)) of the value of the relevant ETC transactions on the route;
- 7.2.3 The price per toll tag to the Contractor is R200 (two hundred Rand) or any other amount specified in the Project Document (Volume 3) (in Base Date Rand). Even through the Contractor will pay R200 (two hundred Rand) (in Base Date prices) per tag, the Contractor will not charge a Customer for a tag. The Contractor may, however, charge for a maximum of 10 trips (at the Adjusted Toll Tariff minus the ETC Discount) to be purchased in advance with the procurement of a free tag. This approach has been adopted by the Employer to ensure that the purchase price of a tag does not become a stumbling block for the growth of the ETC market share and it is a requirement of the Employer that the Contractor shall adopt this approach as well; and
- 7.2.4 A fixed service fee in respect of TCH Services payable to the TCH of 15c (fifteen cents) or any other value specified in the Project Document (Volume 3) (in Base Date prices) per Transaction Record.
- 7.2.5 The fees/commissions referred to in paragraph 7.2.1 above shall not change for a period of one year from the award of this Contract and may change in accordance with the Employer's grants with the Banks.

8. MONTHLY INTERIM PAYMENTS

8.1 Monthly Interim Traffic Volume Statement

- 8.1.1 The Contractor shall, within 7 (seven) days after the end of every month, present monthly traffic volume statements generated by the MIS and the AVC respectively to the Employer's Representative at a measurement meeting attended by an authorised representative of the Contractor, in the format specified by the Employer.

8.2 Monthly Interim Payment Certificate by Employer's Representative

- 8.2.1 The Employer's Representative will compare the traffic volume statement provided by the Contractor with actual traffic volumes, as determined by applying the decision tree.
- 8.2.2 The Employer's Representative shall, within 7 (seven) days after receipt of the Contractor's traffic volume statement and financial report compile an interim payment certificate to certify the Contractor's Monthly Payment, due regard having been had to penalties or other costs and/or amounts payable by the Contractor to the Employer. The Employer's Representative shall furnish the Contractor with a copy of such interim payment certificate. The format of this interim payment certificate will be provided.
- 8.2.3 The Contractor shall issue a VAT invoice or VAT credit note to the Employer and hand it to the Employer's Representative within 3 (three) days after the issue of the monthly interim payment certificate by the Employer's Representative.
- 8.2.4 The Employer's Representative shall finalise, compile and submit the monthly interim payment certificate to the Employer within 5 (five) days after receipt of a VAT invoice or VAT credit note from the Contractor.
- 8.2.5 The Employer shall pay the amount due to the Contractor within 21 (twenty-one) days after receipt by the Employer of the monthly interim payment certificate signed by the Employer's Representative.

8.3 Monthly Interim Payments by the Contractor

- 8.3.1 The Contractor shall pay to the Employer at least the Actual Gross Income of each Toll Plaza for a particular month by means of its daily Revenue deposits into the Joint Account of all available daily Revenue, the Card Revenue deposits and the payments.
- 8.3.2 The Contractor shall also take responsibility to ensure that the Transaction Clearinghouse deposits all Revenue related to ETC Transactions at the Toll Plazas included into the Contract into the Joint Account of the Employer and the Contractor.
- 8.3.3 The Monthly Payment due to the Contractor in respect of a particular month will be reduced by any amounts payable by the Contractor to the Employer. Such amounts payable to the Employer by the Contractor will be determined by the Employer's Representative as follows:
- 8.3.3.1 The cumulative Actual Gross Income from the start of the Operation Service by the Contractor, which the Contractor (and the TCH on behalf of the Contractor) should have paid into the Joint

Account and which should have been transferred to the designated Employer's account, will be compared with the cumulative Revenue actually paid into these accounts.

8.3.3.2 Any shortfall in the cumulative Revenue actually paid for the entire route relative to the cumulative Actual Gross Income will be subtracted from the Monthly Payment due to the Contractor. Any excess in the cumulative Revenue actually paid for the entire route relative to the cumulative Actual Gross Income will be added to the Monthly Payment due to the Contractor.

8.3.4 In the event that the Monthly Payment is a negative figure, the Contractor shall deposit any shortfall in the cumulative Revenue actually paid relative to the cumulative Actual Gross Income into the Joint Account within 14 (fourteen) days of the issue of the monthly interim payment certificate by the Employer's Representative.

8.3.5 The Contractor shall be liable for and shall pay to the Employer interest in respect of late payments of either cash or card or ETC transactions from the date such Revenue was due to the date of payment at the prime overdraft interest rate of the Employer's bankers.

9. FINAL PAYMENT

9.1 Final Traffic Volume Statement

9.1.1 The Contractor shall, within 14 (fourteen) days after the Contract Completion Certificate and after the date of handover to the Next Contractor, present final traffic volume statements generated by the MIS and the AVC respectively to the Employer's Representative at a measurement meeting attended by an authorised representative of the Contractor, in the format specified by the Employer.

9.2 Final Payment Certificate

9.2.1 The final payment certificate shall be compiled and submitted after the Performance Certificate has been issued.

9.2.2 The Employer's Representative will compare the final traffic volume statement provided by the Contractor with traffic volumes from other data sources and apply the decision tree.

9.2.3 The Employer's Representative shall, within 7 (seven) days after issue of the Performance Certificate or receipt of the Contractor's traffic volume statement and financial report, whichever is later, compile a final payment certificate to certify the final Monthly Payment payable to the Contractor, due regard having been had to penalties or other costs and/or amounts payable by the Contractor to the Employer. The Employer's Representative shall furnish the Contractor with

a copy of such final payment certificate. The format of this final payment certificate will be provided.

- 9.2.4 If, following discussions between the Employer's Representative and the Contractor, it becomes evident that a dispute exists regarding the final payment certificate, the Employer's Representative shall compile and deliver to the Employer an interim payment certificate. Thereafter, once the dispute is resolved, the Employer's Representative shall compile a final payment certificate. The Employer's Representative shall furnish the Contractor with a copy of such final payment certificate.
- 9.2.5 The Contractor shall issue a VAT invoice or VAT credit note to the Employer and hand it to the Employer's Representative, within 3 (three) days after the issue of the final payment certificate by the Employer's Representative.
- 9.2.6 The Employer's Representative shall finalise, compile and submit the final payment certificate to the Employer within 5 (five) days after receipt of a VAT invoice or VAT credit note from the Contractor.
- 9.2.7 The Employer shall pay the amount due to the Contractor within 21 (twenty-one) days after receipt by the Employer of the final payment certificate signed by the Employer's Representative.
- 9.2.8 The Contractor shall be liable for and shall pay to the Employer interest in respect of late payments of either cash or card or ETC transactions from the date such Revenue was due to the date of payment at the prime overdraft interest rate of the Employer's bankers.

PART B. DESCRIPTION OF PAYMENT ITEMS

SECTION 1. PREAMBLE TO THE SCHEDULE OF PAYMENTS

1. PREAMBLE TO THE SCHEDULE OF PAYMENTS

1.1 Introduction

This Preamble should be read together with the FIDIC Conditions of Contract for Design, Build and Operate Projects (2008) Volume 1 Book 1.

1.2 Quantities in the Schedule of Payments

The quantities set out in the Schedule of Payments are estimated quantities and will be used for the comparison of Tenders and for awarding the Contract. It must be clearly understood that only the actual quantities of work performed will be measured for payment and that the scheduled quantities may be increased or decreased without limits (except where quantity bands are involved, in which case the relevant band will apply) as required by the Employer, without changing the unit rates.

1.3 Payment

1.3.1 Contract Rates

In computing the final Contract amount, payment shall be based on the actual quantity of authorised work done in accordance with the specifications and certified as such. The tendered rates shall apply, irrespective of whether the actual quantities are more or less than the scheduled quantities.

Where no rate or price has been entered against a payment item in the Schedule of Payments by a Tenderer, it shall be understood that the compensation is included within the other payment items and, therefore, the rate for such item shall be nil. It is further understood that the Schedule of Payments, with the completed rates by the Contractor, includes and provides for all requirements as contained in the Conditions of Contract (Volume 1) and Employer's Requirements (Volume 2).

1.3.2 Rates to be Inclusive

The Contractor shall accept the payment provided in the Contract and represented by the rates tendered by him in the Schedule of Payments, as payment in full for executing and completing the work as specified for procuring, furnishing, placing and installing all materials and equipment, for procuring and providing labour, supervision, construction plant, tools and equipment, for wastage, transport, loading and off-loading, handling, maintenance, temporary work, testing, quality control including process control, overheads, profit, risk, operations and other obligations and for all other incidentals and things necessary for the execution and completion of the Works and maintenance during the period of maintenance.

This clause shall apply in full to all payment items except where these requirements may be specifically amended in each case.

1.4 Meanings of certain phrases

Where any of the words “supply”, “procure”, “provide”, “provision of” or “furnish” are used in the description of a payment item, it shall mean the supply and delivery to the point of use of all labour, equipment and materials of any kind required for the work covered by the particular payment item, including all tax, purchase costs, claims, damages, royalties and transport costs involved.

1.5 Payment items

The descriptions under the payment items in the Schedule of Payments, indicating the work for which allowance shall be made in the tendered rates for such payment items, are for the guidance of the contractor and do not necessarily repeat all the details of work and materials required by and described in the specifications.

These descriptions shall be read in conjunction with the relevant specifications and drawings, and the contractor shall, when tendering, bear in mind that his rates shall be inclusive as specified in Clause 1.3.2 above.

1.6 Rate only items

Against an item in the Schedule of Payments where no quantity is given but a rate only is required, the Contractor shall fill in a rate or amount which will constitute payment for work which may be done in terms of this item. Such rate only item is mostly used in this Contract where significant uncertainty exists regarding which sub-item for a service will eventually be used and the Contractor shall, therefore, price such items on the presumption that any quantity thereof might be used. Work in terms of rate only items will be paid for only if it has been executed in terms of a written instruction by the Employer's Representative. The rate only items shall not contribute to the amounts on the summary page of the Schedule of Payments.

1.7 Design-Build payment items linked to milestone tests.

The Schedule of Payments indicates that certain payment items are specifically linked to successful milestone tests. This work shall be paid in accordance with the percentages indicated for those milestones that were reached and tested successfully and approved by the Employers Representative.

1.8 Sensitivity analyses of tendered rates

Contractor must be alerted to the fact that, due to the potential for change in this Contract regarding the quantities of Operation Services to be provided, significant sensitivity analyses of different scenarios of the application of tendered rates will be performed during the Tender adjudication. Contractor shall, therefore, price payment items on the basis that any quantity thereof might be used.

1.9 Contract Price Adjustment

- 1.9.1 The values of the following components of the monthly payment of the Contractor, expressed in Base Date South African Rand, shall be subject to the application of the relevant Contract Price Adjustment factor, i.e. Consumer Price Index increases relative to the Base Date.
- 1.9.2 Payment items in A: Series: Operation Service and B: Series: Design-Build of the Schedule of Payments expressed in Base Date South African Rands: This specifically excludes items involving Design-Build or Operation Service activities performed at current prices such as in terms of Provisional Sums which shall not be adjusted but shall be paid at current prices, i.e. not inflated.
- 1.9.3 Incentive payment items in the Schedule of Payments, expressed in Base Date South African Rand.
- 1.9.4 Amounts (positive or negative) for the Contractor's performance during the relevant month, based on the scoring of measured Key Performance Indicators, expressed in Base Date South African Rand.
- 1.9.5 The values of the following components of the monthly payment of the Contractor will be expressed in terms of current toll revenue as for the specific year of operation and shall, therefore, not be subject to the application of inflation adjustment based on Consumer Price Index (CPI) increases.
- 1.9.6 The Contractor's responsibility for delivery of the Required Transaction Records and the associated adjustment of the Contractor's Monthly Payment in respect of Transaction Record Loss. Update with mechanism for both conventional and ORT tolling points.
- 1.9.7 The Contractor's responsibility for delivery of Compliant Transaction Records and the associated adjustment of the Contractor's Monthly Payment.
- 1.9.8 The Consumer Price Index for all expenditure groups: Urban Areas (Base 2008 = 100) as published from time to time by Statistics SA (Statistical Release PO 141) shall be used for Contract Price Adjustment purposes, unless specified in the Project Document (Volume 3), provided that:
- 1.9.8.1 if such index should cease to be published,
- 1.9.8.2 or the basis of the calculation of such index has changed in a way which is discriminatory to this Contract and pursuant to such discriminatory change one Party has notified the other that it is not satisfied therewith, or

- 1.9.8.3 the Parties agree that, due to a change in circumstances, the index is no longer representative, or (in circumstances where the Parties are unable to reach such agreement) where such fact is confirmed in writing by an independent actuary in South Africa (who shall act as expert and not as arbitrator) appointed for such purpose by the President for the time being of the Actuarial Society of South Africa, whose determination shall be final and binding upon the Parties,
- 1.9.8.4 then, in any such circumstances, the Parties will use such official information or index as may be available and acceptable to them, or failing such availability or acceptance, an index determined in writing as fair and reasonable by a majority decision of a panel of 3 (three) independent actuaries in South Africa (who shall act as experts and not as arbitrators) appointed for such purpose by the President for the time being of the Actuarial Society of South Africa, whose determination shall be binding upon the Parties. Any determination made by the majority of such panel as to the date from which any revised index shall take effect and liability for the cost of determination of the index by the panel shall be binding upon the Parties.
- 1.9.9 The values of the components of the Monthly Payment of the Contractor, expressed in Base Date South African Rand, listed in Clause 1.9.1 shall be adjusted for inflation by means of the following formula:

$$Monthly\ Payment_{CR} = \frac{Actual\ CPI\ (current\ month)}{Base\ Date\ CPI\ (tender\ stage)} \times Monthly\ Payment_{BDR}$$

where

$Monthly\ Payment_{CR}$ = Contractor's Monthly Payment in current South African Rand, i.e. after applying the Contract Price Adjustment factor

$Monthly\ Payment_{BDR}$ = the Contractor's Monthly Payment in Base Date South African Rand

- 1.9.10 The Base Date for the relevant Contracts shall be specified in the Project Document (Volume 3).
- 1.9.11 In the event that the actual CPI for the current month is not available yet, the last available CPI will be used in the interim until the final figure is published.

**SECTION 2. DESCRIPTION OF PAYMENT ITEMS – A-SERIES:
OPERATION SERVICE**

A-SERIES: OPERATION SERVICE**A-1000 GENERAL CONTRACTOR'S OBLIGATIONS**

The total tender price for the A-1000-Series shall not be more than 15% of the total tender price for Operation Service (in Base Date Rand)

Item No.	Description	Unit
A-1001	Contractor's General Obligations for the Duration of the Operations Service Period	Month

This item is to make provision for all the Contractors' General Obligations in accordance with clause 10.1 of FIDIC Conditions of Contract for Design, Build and Operate Projects. (2008) (Volume 1 Book 1)

The tendered rate shall include full compensation to the Contractor to meet and to maintain all the General Obligations, in accordance with clause 10.1 of FIDIC General Conditions of Contract for the Design, Build and Operate Project (Volume 1 Book 1) (2008), must also include compensation for all Head Office cost not covered in the payment items listed in the Schedule of Payments (Cost Matrix). The Tendered Rate shall also included for the Contractor's profit not built into the individual payment items.

The unit of measurement shall be a month of the Operation Service Period during which the Contractor actually provided Head Office overheads required for the execution of the Contract. The Payment will be made to the Contractor for a month of the Operation Service Period during which it provided the Head Office overheads described above.

Item No.	Description	Unit
A-1002	Provision of Performance Security	Year

In terms of this item, the Contractor needs to provide a Performance Security as per the pro forma detailed in Clause C1 of the Project Document (Volume 3) and in terms of Clause 4.2 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008).

The tendered rate shall include full compensation to the Contractor to supply and maintain the Performance Security for the duration of the Operation Service Period, including cost to issue a new Performance Security with the annual adjusted amounts calculated in terms of Clause 4.2 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008). The tendered rate shall also include all the Bank-related costs to issue and to maintain the Performance Security for the duration of the Operation Service Period, all cost incurred by the Contractor should any payment(s) be made from the "Maximum Amount" and for any other costs incurred by the Contractor related to maintaining the Performance Security and to meet the required obligations for the duration specified in the Contract.

The unit of measurement shall be a year of the Contract Period for which the Performance Security has been put in place. Payment will be made to the Contractor on the submission of the initial Performance Security during the Establishment Period and thereafter on an annual basis after the submission of a new Performance Security in the annually adjusted amount.

Item No.	Description	Unit
A-1003	Compliance with Laws	Month
	<p>In terms of this item, the Contractor shall comply with all obligations and requirements related to the “Compliance with Laws”, as specified in Clause 1.14 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and any other Clauses and requirements specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with the required payments to maintain all “<i>Fees, Taxes and Duties</i>” specified in Clause 1.14 of FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) that are levied to the Employer, to the Contractor, to the subcontractors and other entities. The Contractor shall determine in which month the “<i>Fees, Taxes and Duties</i>” are due and price the appropriate month(s) in the Schedule of Payments/Cost Matrix for the duration of the Contract. The Contractor shall make provision in the monthly tendered rates in (Base Date Rand) for all possible increases in real terms that may occur during the Contract Period.</p> <p>The unit of measurement shall be a month during which the Contractor complied with all requirements, as described above. Payment to the Contractor will be made monthly based on the monthly tendered rates in the Schedule of Payments/Cost Matrix.</p>	

Item No.	Description	Unit
A-1004	Compliance with Health and Safety Requirements	Month
	<p>The unit of measurement shall be a month of compliance with Clause 6.7 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects (2008) Volume 1 Book 1, including taking all reasonable pre-cautions to maintain the health and safety of the Contractor’s personnel, the appointment and operation of an accident prevention officer and maintaining records on and reporting of any accidents and in respect of the health, safety and welfare of persons and damage to property, as the Employer’s Representative may reasonably require.</p> <p>The item shall also include compliance with the requirements of the Occupational Health and Safety (OH&S) Act, as described in Project Document (Volume 3) Book 1, including the development of risk assessments and site-specific OH&S rules, supervision responsibilities in respect of the OH&S Act, the designation of OH&S representatives and keeping an OH&S file at each site, investigation of accidents/incidents and statutory reporting.</p>	

Item No.	Description	Unit
A-1005	<p>Compliance with Environmental Requirements</p> <p>In terms of this item, the Contractor shall comply with environmental requirements as specified in Clause 4.18 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and all other related Clauses and requirements that may be specified in the Contract.</p> <p>The tendered rate is shall include full compensation to the Contractor to comply with all environmental requirements in terms of Clause 4.18 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) for the duration of the Contract.</p> <p>The unit of measurement shall be a month of the Contract Period during which the Contractor complied with all environmental requirements. Payment will be made to the Contractor for a month of the Contract Period during which it complied with the environmental requirements.</p>	Month

Item No.	Description	Unit
A-1006	<p>Compliance with Social Responsibility Requirements</p> <p>In terms of this item, the Contractor shall comply with all social responsibility requirements that are specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with all the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with the social responsibility requirements specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with all the requirements specified in Clause C3.4 in the Project Document (Volume 3) for the duration of the Contract.</p> <p>The unit of measurement shall be month of the Contract Period during which the Contractor complied with all social responsibility requirements. Payment will be made to the Contractor for a month of the Contract Period during which it complied with the social responsibility requirements.</p>	Month

Item No.	Description	Unit
A-1007	<p>Provision and Maintenance of Adequate Insurance</p> <p>In terms of this item, the Contractor shall provide adequate insurance in terms of Clause 19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and other Clauses specified in the Contract.</p> <p>The tendered rate shall represent full compensation for the Contractor to provide and maintain adequate insurance for the various phases of the Contract in terms of Clause 19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) for the duration of the Contract. This tendered rate shall also include for all</p>	Month

cost incurred by the Contractor related to any possible claims against the Contractor, for possible increases to the premium and to the deductibles amount that may occur during the Contract Period. The tendered rate shall also include for the additional cost should the Contractor claim using the Employer's insurance.

The unit of measurement shall be a month of the Contract Period during which adequate insurance was provided. Payment will be made to the Contractor for a month of the Contract Period during which adequate insurance was maintained.

Item No.	Description	Unit
A-1008	Provision and Maintenance of Contractor's Equipment	Month
	In terms of this item, the Contractor shall supply and maintain all Contractor's Equipment in terms of Clause 4.17 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) that is required to execute the Contractor's duties and requirements specified in the Contract.	
	The tendered rate shall represent full compensation to the Contractor to supply and maintain all the Contractor's Equipment required to successfully execute its obligations specified in the Contract in terms of Clause 4.17 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) for the duration of the Contract.	
	The Contractor shall price on a monthly basis in the Schedule of Payments/Cost Matrix to maintain and or replace, if required, the Contractor's equipment for the duration of the Contract. Payment will be made to the Contractor for a month during which the Contractor's Equipment was maintained.	

Item No.	Description	Unit
A-1009	Supply and Maintenance of Documents and Drawings	Month
	In terms of this item, the Contractor shall supply and maintain all documents, drawings, licenses and agreements in terms of Clause 2 of the Standard Specifications for Operations and Maintenance for CTROM Projects:: General (Volume 2 Book 2a) and other related Clauses and requirements specified in the Contract.	
	The tendered rate shall represent full compensation to the Contractor to develop, distribute and maintain all documents, drawings, licenses and agreements in term of Clause 2 of the Standard Specifications for Operations and Maintenance for CTROM Projects:: General (Volume 2 Book 2a) and other related Clauses and requirements specified in the Contract.	
	The Contractor shall price on a monthly basis in the Schedule of Payments/Cost Matrix to develop, distribute, maintain and to update all of the above-mentioned documents and drawings to the approval of the Employer's Representative for the duration of the Contract.	

Item No.	Description	Unit
A-1010	Training of Personnel and other training obligations	Month
	<p>In terms of this item, the Contractor shall comply with all training requirements specified in Clause 10.5 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all training requirements specified in Clause 10.5 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract.</p> <p>The unit of measurement shall be a month of the Contract Period during which the Contractor complied with all training requirements. Payment will be made to the Contractor for a month of the Contract Period during which it complied with the training requirements.</p>	

Item No.	Description	Unit
A-1011	Completion of Operation Service Period	Lump Sum
	<p>In terms of this item, the Contractor shall ensure that all obligations required for the Completion of the Operation Service Period are met in terms of Clause 10.8 of the FIDIC General Conditions Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and all other related Clauses and requirements specified in the Contract.</p> <p>The tendered rate shall represent full compensation for the Contractor related to the “Completion of the Operations Service Period” and to execute all the duties and requirements to successfully handover the facilities to the Employer and/or the New Contractor in terms of Clauses 10.8 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and other related Clauses and requirements specified in the Contract.</p> <p>Payment will be made to the Contractor when all the obligations required have been met and when the Contractor has successfully handed over the facilities to the Employer and/or new Contractor.</p>	

Item No.	Description	Unit
A-1012	Extra over costs for taking over of Upgraded and New Assets During Contract Period (If triggered)	Lump Sum
	<p>In terms of this item, the Contractor shall price for the “<i>Takeover Of Upgraded and/or New Assets During The Contract Period</i>” provided by the Employer or that may be specified in <i>Project Document (Volume 3)</i>.</p> <p>The tendered rate shall represent full compensation to the Contractor for the taking over of upgraded and/or new assets that may be specified in the Project Document (Volume 3). This tendered rate shall also include for the <i>mobilisation</i> of additional staff, equipment and</p>	

training that may be required and or any other cost to successfully achieve “*Takeover Of Upgraded and/or New assets during the Contract Period*”.

When the construction and/or installation of the upgraded and/or new assets are nearing completion, the Employer will trigger takeover of the upgraded and/or new assets. Payment will be made once the Contractor has successfully taken over and incorporated the upgraded and or new assets into the existing Operation Service.

Item No.	Description	Unit
A-1013	Escrow for commissioning Toll System application software	Month
	In terms of this item, the Contractor shall comply with the requirements related to the provision of an Escrow agreement and the compliance to the requirements of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	The tendered rate shall include for compliance to the deposition of all software in Escrow for the commissioned Toll System and for the ongoing maintenance of the Escrow agreement as well as for the frequent depositing and verification of software to comply with the requirements to deposit the software in Escrow annually or with the implementation of any new software.	
	The tendered rate shall include for full compensation for the provision of an approved and agreed Escrow agreement and the delivery of the complete software into Escrow.	
	This tendered rate for under the above item shall include for full compensation for the actions required to conclude an approved and agreed Escrow agreement and the initial deposition of all software, including testing and verification activities.	
	The unit of measurement shall be month for the provision of Escrow and ongoing and annual Escrow requirements.	
	Payment shall be made to the Contractor on a monthly basis based on the tendered rate on the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

A-2000 PROVISION OF STAFF AND LABOUR

Item No.	Description	Unit
A-2001	Toll Collectors	Month

In terms of this item, the Contractor shall comply with all employment requirements for Toll Collectors as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).

The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Toll Collectors that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Toll Collectors to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.

The unit of measurement shall be a month of the Operation Service Period during which Toll Collectors as required, in order to comply with the specifications, were actually provided. Payment will be made to the Contractor for a month during which the Contractor provided the required Toll Collectors for the project.

Item No.	Description	Unit
A-2002	Senior Toll Collectors	Month

In terms of this item, the Contractor shall comply with all employment requirements for Senior Toll Collectors as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).

The tendered rate shall represent full compensation to by the Contractor to comply with all employment requirements for Senior Toll Collectors that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Senior Toll Collectors to execute all obligations specified in the Contract. It shall include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.

The unit of measurement shall be a month of the Operation Service Period during which Senior Toll Collectors, as required in order to comply with the specifications, were actually provided. Payment will be made to the Contractor for a month of the Operation Service

Period during which the Contractor provided the required Senior Toll Collectors required by the Project.

Item No.	Description	Unit
A-2003	Seasonal Toll Collectors	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Seasonal Toll Collectors as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Seasonal Toll Collectors that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Seasonal Toll Collectors to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which Seasonal Toll Collectors, as required in order to comply with the Specifications, were actually provided. Payment will be made to the Contractor for a month of the Operation Service Period during which the Contractor provided the required Seasonal Toll Collectors required by the project.</p>	

Item No.	Description	Unit
A-2004	Shift Supervisors	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Shift Supervisors as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Shift Supervisors that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Shift Supervisors to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which Shift Supervisors, as required to comply with the Specifications, were actually provided.</p>	

Payment will be made to the Contractor for a month of the Operation Service Period during which the Contractor provided the Shift Supervisors required by the project.

Item No.	Description	Unit
A-2005	Plaza Managers	Month
	<p>In terms of this the Contractor shall comply with all employment requirements for Plaza Managers as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Plaza Managers that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract.</p> <p>The tendered rate shall include for all the costs incurred by the Contractor for the employment of Plaza Managers to execute all obligations specified in the Contract. It shall must also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which Plaza Managers, as required in order to comply with the Specifications, were actually provided. Payment will be made to the Contractor for a month of the Operation Service Period during which the Contractor provided the Plaza Managers required by the project.</p>	

Item No.	Description	Unit
A-2006	Administrative Personnel	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Administrative Personnel as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Administrative Personnel that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Administrative Personnel to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month during which Administrative Personnel, as required in order to comply with the Specifications, were actually provided. The payment will</p>	

be made to the Contractor for a month of the Operation Service Period during which the Contractor provided the Administrative Personnel required by the project.

Item No.	Description	Unit
A-2007	Lane, Garden and Plaza Attendants	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Lane, Garden and Plaza Attendants as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Lane, Garden and Plaza Attendants that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Lane, Garden and Plaza Attendants to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which Lane, Garden and Plaza Attendants, as required to comply with the specifications, were actually provided. Payment will be made to the Contractor for a month during which the Contractor provided the Lane, Garden and Plaza Attendants required by the project.</p>	
Item No.	Description	Unit
A-2008	Technical Staff	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Technical Staff as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements for Technical Staff that are specified in Clause 6 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Technical Staff to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which Technical Staff, as required to comply with the specifications, were actually provided. Payment will be made to the Contractor for a month of the Operation Service Period during which the required Technical Staff were actually provided.</p>	

Item No.	Description	Unit
A-2009	Transport of Personnel	Month
	<p>In terms of this item, the Contractor shall price for all the costs related to the transport of personnel in order to execute all obligations specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor to transport personnel to and from the Toll Plazas. The tendered rate shall also include for all toll fees, petrol costs and any other transport-related costs incurred by the Contractor.</p> <p>The unit of measurement shall be a month of the Operation Service Period during which the Contractor actually transported personnel, as required. Payment will be made to the Contractor for a month of the Operation Service Period during which it transported personnel, as required.</p>	

Item No.	Description	Unit
A-2010	Additional Toll Collector due to the Lane Expansion/Reversible Lane Creation (If Triggered)	Month
	<p>In terms of this item, the Contractor shall comply with all employment requirements for Toll Collectors as specified in Clause 6 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects– Volume 1 Book 1 (2008) and with the requirements specified in Clause C3.4 of the Project Document (Volume 3).</p> <p>The tendered rate shall represent full compensation to the Contractor to comply with all employment requirements specified in Clause 6 of the FIDIC General Conditions of Contract for Toll Operations and Routine Road Maintenance – Volume 1 Book 1 (2008) and with requirements specified in Clause C3.4 of the Project Document (Volume 3) for the duration of the Contract. The tendered rate shall include for all the costs incurred by the Contractor for the employment of Toll Collectors to execute all obligations specified in the Contract. It shall also include for all the cost related to leave, annual bonus, UIF, overtime/relief support, incentives, Provident Fund, skills levy, COID and any other company costs for this category of staff.</p> <p>The payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Contract.</p>	

Item No.	Description	Unit
A-2011	Extra Over or Saving of Operational Costs if Dedicated ETC Lanes are Implemented (If triggered)	Month
	<p>In terms of this item the Contractor shall price for any additional costs or cost savings that the Contractor may incur should the Employer “Trigger” the Operations of dedicated ETC lanes at the plaza.</p> <p>The tendered rate is to include for all additional costs or cost savings that the Contractor may incur. Should the Employer “trigger” the Operation of dedicated ETC lanes at the plaza and the Contractor incur additional costs to operate and manage the Dedicated ETC lane,</p>	

such as, Runners in lanes, back office transaction verification, formulating and sending transaction files to the National TCH from plaza then the Contractor must price as additional costs in the Schedule of Payments. Should the Contractor find that a saving is possible, i.e. require less Toll Collectors, the implemented Back Office System is automated, etc. should the Employer “Trigger” the Operation of a dedicated ETC lane. Then the Contractor is to price a negative value, reflecting the saving amount in the Schedule of Payments.

The payment to the Contractor will be done monthly based on the monthly tendered rate in the Schedule of Payments.

Item No.	Description	Unit
A-2012	Management of functional Customer Services, including Account Registration, Tag Distribution and Account Top-Up Services, as well as Revenue Management (if triggered)	Month
	<p>The unit of measurement shall be a month of management of the functional ETC Customer Services, including Account registration, Tag distribution and Account top-up services, as well as Revenue Management. The functional Customer Services, including Account registration, Tag distribution and Account top-up services shall at least include the operation of the minimum number of 1 permanent Customer Service Kiosk at every Control Centre.</p> <p>The tendered rate shall include full compensation for all human and other resources required for the planning, directing, organising, co-ordinating and controlling of the functional Customer Services, including Account registration, Tag distribution and Account top-up services.</p>	
Item No.	Description	Unit
A-2013	Customer Service Operations, including Account Registration, Tag Distribution, Account Top-up and Revenue Collection and Administration Services at Control Centres (if triggered)	
	a) Operation of 1 Customer Service counter at Control Centre	Control Centre-Month
	b) Extra Over a) for the Operation of an additional Customer Service counter at a Control Centre	Control Centre-Month

The unit of measurement shall be the operation of a Point of Presence Customer Service counter at a Control Centre for a month for the delivery of all Customer Services, including for Account Registration, Tag Distribution, Account top-up and Revenue collection and administration services during the months of the Operation Service period when ETC is operational or during the Pre-Operation period when certain Customer Services have become functional, for example Account Registration. The hours of operation and staffing of the Customer Service counters shall be as indicated in Project Document (Volume 3) Book 1. Item A-2013 b) may be employed to pay the extra over for the operation of an additional Customer Service counter at a Control Centre.

The tendered rate shall include full compensation for the provision of Customer Service staff at the Control Centres during the indicated hours, including for employment, transport and supervision of staff to and from the Control Centres as well as full compensation for safety and security at the Control Centre locations. The tendered rate for sub-item A-2013 b) shall not be higher than that for sub-item A-2013 a).

Item No.	Description	Unit
A-2014	Operation of different work-station configurations at Customer Service (CS) Kiosks at locations remote from Control Centres, including for Account Registration, Tag Distribution, Account Top-up and Revenue Collection and Administration Services (if triggered)	
	a) Operation of a 1 Work-Station Configuration at a CS Kiosk	Kiosk-Month
	b) Extra Over, for Operation of an additional Work-Station at a CS Kiosk, if triggered	Kiosk-Month
	c) Extra Over, for Operation of 2 additional Work-Stations at a CS Kiosk, if triggered	Kiosk-Month
	d) Extra Over, for Operation of 3 additional Work-Stations at a CS Kiosk, if triggered	Kiosk-Month
	e) Extra Over, for Operation of 4 additional Work-Stations at a CS Kiosk, if triggered	Kiosk-Month

The unit of measurement shall be the operation of a 1, 2, 3, 4 or 5 work-station Customer Service Kiosk configuration for a month for the delivery of all Customer Services, including for Account registration, Tag distribution, Account top-up and Revenue collection and administration services at locations remote from Control Centres. The Kiosks shall be staffed during the hours indicated in Project Document (Volume 3) Book 1. The staffing of the Customer Service Kiosks shall be such that the Contractor complies with the Target Service Levels as defined in the Standard Specifications for Operations and Maintenance of CTROM Projects: Performance Measurement (Volume 2 Book 6a) provided that, if the Contractor requires more than 5 staffed work-stations at a Kiosk to comply with the Target Service Level, the Contractor will be remunerated in terms of payment item A-2014 b) for the operation of any additional work-stations above 5 during the shift.

Payment shall be made for whichever configuration is actually required by the Contractor in the course of a month to comply with the Target Service Levels in the Standard Specifications for Operations and Maintenance of CTROM Projects: Performance Measurement (Volume 2 Book 6a) during the daily peak period, i.e. if a physical 5 work-station Kiosk requires a maximum of 3 work-stations to be staffed during the daily peak period, then payment shall be made for the operation of a 3 work-station Kiosk. This arrangement is necessary to allow for the likely occurrence of, for example, a 5 work-station Kiosk being used as a 3 work-station Kiosk after the Ramp-Up Period. In order for the Contractor to be paid for the peak period number of staffed work-stations, the maximum staffing shall be rendering Customer Service for at least two-thirds of the calendar days of the month and for at least 50% of the duration of the shift containing the peak period.

The tendered rate shall include full compensation for the provision of Customer Service staff at the Customer Service Kiosks during the indicated hours, including for employment, transport and supervision of the staff at the Kiosks.

For the purpose of completing the Cost Matrix, the Tenderer shall fill in the monthly total for all the sub-items of this payment item for the numbers of Customer Service Kiosks indicated in Project Document (Volume 3) Book 1 and as from the date indicated in Project Document (Volume 3) Book 1. The Employer's Representative will use these monthly totals to adjudicate the impact of alternative Customer Service Kiosk configurations upon the Tender Price.

Item No.	Description	Unit
A-2015	Call Handling Function: In-house handling of calls from the public during the Operation Period (if triggered)	
	a) Fewer than 1 000 calls during a month	100 calls
	b) Calls for a month between 1 000 and up to 2 000	100 calls
	c) Calls for a month between 2 000 and up to 3 000	100 calls
	d) Calls for a month between 3 000 and up to 4 000	100 calls
	e) Calls for a month between 4 000 and up to 5 000	100 calls
	f) Calls for a month between 5 000 and up to 6 000	100 calls
	g) Calls for a month between 6 000 and up to 7 000	100 calls
	h) Calls for a month between 7 000 and up to 8 000	100 calls
	i) Calls for a month between 8 000 and up to 9 000	100 calls
	j) Calls for a month between 9 000 and up to 10 000	100 calls

After this payment item has been triggered, payment of only the relevant sub-item will take place each month. The unit of measurement shall be 100 incoming calls from the public in respect of Electronic Toll Collection (ETC) transactions and road-related incidents or reports. In the case of ETC transactions, calls will include applications for certain project specific discounts such as a possible ETC-linked local user discount system and possible discounts for certain public transport vehicle groups such as taxi's as well as queries about Exempt Vehicle status that may require using a Toll Tag. The Contractor will also be required to receive and answer calls from the public regarding road-related incidents or reports on road conditions which he, in turn, needs to forward to the relevant Government agencies or departments.

The tendered rate shall represent full compensation to the Contractor for the operation of the Customer Service call centre for the duration of the Contract including, but not limited to, the provision of the required number of suitably skilled staff, as required, the performance of the Customer call centre activities and adherence to the call centre manning hours, as specified, in Clause 19 of the Standard Specifications for Operations and Maintenance for CTROM

Projects:: General – (Volume 2 Book 2a) and other related Clauses and requirements specified in the Contract Document.

The tendered rate shall include full compensation for all human and other resources, processes and activities to ensure that each call received from the public is handled professionally and courteously.

The objective with the call volume bands is to provide Tenderers with the opportunity to take into account the impact of economies of scale upon their prices.

For the purpose of completing the Cost Matrix, the Tenderer shall fill in the monthly total for all the sub-items of this payment item for the duration of the Contract. The Employer's Representative will use these monthly totals to adjudicate the impact of alternative call bands upon the Tender Price. During the Contract Period, the Contractor will be paid on a monthly basis at the rate tendered for the call band in which the actual calls received would fall.

A-3000 FINANCIAL FEES AND RISKS

Item No.	Description	Unit
A-3001	Cash Deposit Fees	Month
	<p>In terms of this item, the Contractor shall price for all cost and profit related to the cash deposit fees in order to meet the obligations and requirements specified in Clause 7 of the Standard Specifications for Operations and Maintenance for CTROM Projects: General – (Volume 2 Book 2a) and any other related clauses specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor for depositing the cash collected at the Toll Plazas into the Employer plaza account as specified in Clause 7 of the Standard Specifications for Operations and Maintenance for CTROM Projects: General (Volume 2 Book 2a) and other related clauses specified in the Contract. The tendered rate shall include but not be limited to fees payable related to cash deposit to Employer specified bank(s) on behalf of the Employer, interest payments due to late deposits and to meet the obligations required in terms of the Merchant Agreement signed between the Bank and the Employer.</p> <p>The Payment to the Contractor will be done monthly based on the monthly tendered rate in the Schedule of Payments for the duration of the Operation Service Period.</p>	
Item No.	Description	Unit
A-3002	Provision for Cash Collection Service	Month
	<p>In terms of this item, the Contractor shall price for all cost and profit related to the Cash Collection Service in order to meet the obligations and requirements specified in Clause 7 of the Standard Specifications for Operations and Maintenance for CTROM Projects: General (Volume 2 Book 2a) and any other related clauses specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor for the transfer of cash collected at the Toll Plazas to the Employer or Bank designated cash counting centre as specified in Clause 7 of the Standard Specifications for Operations and Maintenance for CTROM Projects: General (Volume 2 Book 2a) and any other related clauses specified in the Contract. The tendered rate shall include but not be limited to all costs to transport the cash from the Plaza to the cash counting centres, all toll fees, all fuel costs, transport costs, costs to insure the cash being transported against robbery and hijacks and any other costs related to the Cash Collection Service.</p> <p>The Payment to the Contractor will be done monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.</p>	
Item No.	Description	Unit
A-3003	Risk of Income Loss/Gain in respect of Exempt User Passages	Month
	In terms of this item, the Contractor shall comply with the requirements related to processing Exempt User passages as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and	

Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.

The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of losing or gaining the first 10% increase/decrease in the value of Exempt User Passages relative to the historic value (as well as AGI growth) of such Passages, determined as described for amounts above 10% in Clause 4.5.3 of Part A Payment Methodology of this volume.

Payment will be made to the Contractor monthly based on the tendered rates in the Schedule of Payments for the duration of the Operation Service Period.

Item No.	Description	Unit
A-3004	Risk of Income Loss/Gain in respect of Local and Regional Discounts	Month
	In terms of this item, the Contractor shall comply with the requirements related to the processing of transactions linked to Local and Regional Discounts as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.	
	The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of losing or gaining the first 10% increase/decrease in the value of Local and Regional Discounts relative to the historic value (as well as AGI growth) of such Discounts, determined as described for amounts above 10% in Clause 4.5.3 of Part A Payment Methodology of this volume.	
	Payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-3005	Risk of Income Loss/Gain in respect of Frequent User Discounts Income	Month
	In terms of this item, the Contractor shall comply with the requirements related to processing of transactions linked to Frequent User Discounts as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.	
	The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of losing or gaining the first 10% increase/decrease in the value of Frequent User Discounts relative to the historic value (as well as AGI growth) of such Discounts, determined as described for amounts above 10% in Clause 4.5.3 of Part A Payment Methodology of this volume.	
	Payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-3006	Risk of Income Loss in respect of Run-through Violations	Month
	<p>In terms of this item, the Contractor shall comply with all the requirements related to the processing of transactions as Run-Through violations, as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.</p> <p>The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of all losses related to Run-through Violations.</p> <p>Payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.</p>	

Item No.	Description	Unit
A-3007	Risk of Income Loss in respect of No-Payment Passages	Month
	<p>In terms of this item, the Contractor shall comply with all the requirements related to the processing of transactions as No-Payment passages, as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.</p> <p>The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of all losses related to No-Payment Passages.</p> <p>Payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.</p>	

Item No.	Description	Unit
A-3008	Contractor Discounts Income Loss	Month
	<p>In terms of this item, the Contractor shall comply with all the requirements related to the processing of transactions linked to other Contractor Discounts, as specified in Clause 4.5 of Part A Payment Methodology of this Volume 2 Book 7a, Standard Specifications for Operations and Maintenance of CTROM Projects: Payment Methodology and Description of Payment Items.</p> <p>The tendered rate shall represent full compensation to the Contractor for taking the full risk for the duration of the Contract of all losses related to Contractor Discounts.</p> <p>Payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.</p>	

A-4000 UTILITIES, SERVICES AND LEVIES

Item No.	Description	Unit
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A-4001	Cost for the Supply of Electricity	Month
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In terms of this item, the Contractor shall comply with all requirements related to the supply of electricity as specified in Clause 4.19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects– Volume 1 Book 1 (2008) and to the requirements specified in Clause PS 15.1 of the Standard Specifications for Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).

The tendered rate shall represent full compensation to the Contractor to comply with all requirements related to the supply of electricity as specified in Clause 4.19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the Standard Specifications for Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a). The tendered rate must also make provision for any increase of Electricity Usage tariffs that maybe higher than Consumer Price Index (CPI) during the Operation Service Period.

The payment to the Contractor will be made monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.

Item No.	Description	Unit
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A-4002	Cost for the Supply of Fuel	Month
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In terms of this item, the Contractor shall comply with requirements related to the supply of fuel to provide Emergency power to the plaza as specified in Clause 4.19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with requirements specified in Clause PS 15.1 of the Standard Specifications for Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).

The tendered rate shall represent full compensation to the Contractor to comply with requirements related to the supply of fuel to provide emergency power to the plaza as specified in Clause 4.19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the (Volume 2 Book 2a) for Operations and Maintenance of CTROM Projects: General for the duration of the Contract.

The payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Operation Service Period.

Item No.	Description	Unit
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A-4003	Cost for the Supply of Potable Water	Month
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In terms of this item, the Contractor shall comply with the requirements related to the supply of potable water to the plazas as specified in Clause 4.19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the

requirements Clause PS 15.1 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).

The tendered rate shall represent full compensation to the Contractor to comply with requirements related to the supply of potable water specified in Clause 4.19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and in Clause PS 15.1 of the Standard Specifications for the Operations and Maintenance of CTROM: General (Volume 2 Book 2a) for the duration of the Contract. The tendered rate must also make provision for any increase of water usage tariff that maybe higher than the Consumer Price Index (CPI) during the Operation Service Period.

The payment will be made to the Contractor monthly based on the tendered rates in the Schedule of Rates for the duration of the Operation Service Period.

Item No.	Description	Unit
A-4004	Cost for the supply of Sewage and Waste Water Disposal	Month
	In terms of this item, the Contractor shall comply with the requirements related to the sewage and waste water disposal specified in Clause 4.19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).	
	The tendered rate shall represent full compensation to the Contractor to comply with the requirements related to the sewage and waste water disposal as specified in Clause 4.19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the Standard Specifications for the Operations and with the requirements specified in Maintenance of CTROM Projects: General (Volume 2 Book 2a). The tendered rate is to make provision for any increase sewage and waste removal disposal unit tariffs that maybe higher than Consumer Price Index (CPI) during the Operation Service Period.	
	The payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Contract.	

Item No.	Description	Unit
A-4005	Cost for the Supply of Refuse Removal	Month
	In terms of this item, the Contractor shall comply with the requirements related to the sewage and waste water disposal specified in Clause 4.19 of the FIDIC General Conditions of Contract For Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).	
	The tendered rate shall include full compensation to the Contractor to comply with the requirements related to the sewage and waste water disposal specified in Clause 4.19 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in Clause PS 15.1 in the Standard	

Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a) for the duration of the Contract.

The payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Contract.

Item No.	Description	Unit
A-4006	Data Communications Solution between the various Control Centres	Month
	In terms of this item, the Contractor shall comply with all the requirements related to the provision of a Communications Solution between the various Control Centres in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	The Contractor shall provide a Wide Area Network (WAN) between the Control Centres to enable all data transfers which includes transactions from the Lanes to the Back Office servers and the downloads from the servers to the Lanes.	
	The tendered rate for this item is for the provision of communication solution and shall include for full compensation for the fixed and variable component for the supply, installation, testing and commissioning of the communication equipment complete at the Control Centre, including but not limited to, all application and 3rd party software and licences, firmware, hardware, cabling, installation, configuration and segmentation, Contractor's internal and milestone testing, earthing and the like, as indicated in the referenced specification.	
	Payment shall be done after installation, commissioning and successful testing and approval by the Employers Requirement of the communications solution.	

Item No.	Description	Unit
A-4007	Data Backup Communications Solution between the Control Centres.	Month
	In terms of this item, the Contractor shall comply with all the requirements related to the provision of a back-up Communications Solution between the Control Centres in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	The Contractor shall provide a back-up solution between the Control Centres to enable, in case of communication failure, to ensure all data transfers which includes transactions from the Lanes to the Back Office servers and the downloads from the servers to the Lanes.	
	The tendered rate shall provide for full compensation for the fixed and variable component to provide the back-up communications solution as indicated in the specified Employer's Requirements.	
	The backup solution may consist of any approved technology and/or procedures, and which shall include as a last resort the physically transporting of data between the various control centres. This backup solution shall be contained in the Contractor's Technical Proposal, and approved by the Employer.	

Payment shall be done after installation, commissioning and successful testing and approval by the Employers Requirement of the back-up communications solution.

Item No.	Description	Unit
A-4008	Data Communications Solution between the Control Centre and the TCH: In terms of this item, the Contractor shall comply with all the requirements related to the provision of a Communications Solution between the Control Centres and the TCH in terms of Clause 11 of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a). The tendered rate for this item is for the communication solution shall include for full compensation for the fixed and variable component for the supply, installation, testing and commissioning of the communication equipment complete at the Control Centre, including but not limited to, all application and 3rd party software and licences, firmware, hardware, cabling, installation, configuration and segmentation, Contractor's internal and milestone testing, earthing and the like, as indicated in the referenced specification. Payment shall be done after installation, commissioning and successful testing and approval by the Employer Representative of the communications solution.	Month

Item No.	Description	Unit
A-4009	Data Back-up Communications Solution between the Control Centre and the TCH: In terms of this item, the Contractor shall comply with all the requirements related to the provision of a back-up Communications Solution between the Control Centres and the TCH in terms of Clause 11 of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a). The tendered rate for this item is for the back-up communication solution shall include for full compensation for the fixed and variable component for the supply, installation, testing and commissioning of the communication equipment complete at the Control Centre, including but not limited to, all application and 3rd party software and licences, firmware, hardware, cabling, installation, configuration and segmentation, Contractor's internal and milestone testing, earthing and the like, as indicated in the referenced specification. Payment shall be done after installation, commissioning and successful testing and approval by the Employer Representative of the back-up communications solution.	Month

Item No.	Description	Unit
A-4010	Provision and Maintenance of Telecommunications System – Other, including Telephone and Internet (Excluding QLS Telkom ISDN Line – see Prov Sums) In terms of this item, the Contractor shall comply with the requirements related to the supply, installation and maintenance of the telecommunication service as specified in	Month

Clause 11 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a) (Sep 2010).

The tendered rate shall represent full compensation to the Contractor to comply with the requirements related to the supply, installation and maintenance of other telecommunication services such as telephone and internet as specified in Clause 11 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a) (Sep 2010).

The payment will be made to the Contractor monthly based on the tendered rate in the Schedule of Payments for the duration of the Contract.

Item No.	Description	Unit
A-4011	Collection of Tags at TCH in Centurion and Delivery to Control Centres and Customer Service Kiosks remote from Control Centres	Delivery
	For the purpose of this payment item, the Collection of Tags will take place from the Gauteng Open Road Tolling Central Operations Centre in Centurion, Gauteng and Tags will be delivered to all the Control Centres along the route as well as to any Customer Service Kiosk along the route within 10 kms from the toll route.	
	The unit of measurement shall be a timely delivery of Tags to the Control Centres along the route and to any Customer Service Kiosk along the route, as specified above. The tendered rate shall include full compensation for the human and other resources required for the collection of tags at the TCH and the delivery of Tags to the Control Centres and Customer Service Kiosks along the route.	

A-5000 MAINTENANCE OF PROJECT ASSETS**A-5100 FACILITIES MAINTENANCE**

Item No.	Description	Unit
A-5101	Control Building and remote plaza buildings and structures	Month
	<p>In terms of this item, the Contractor shall comply with the requirements related to the facility maintenance for buildings and structures in accordance with the Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a.</p> <p>The rate per month as tendered under this item shall include full compensation for all the monthly maintenance of the buildings and/or structures that comprise the Control Centre. The maintenance works shall include all work, replacement and reparations and all work, including spares and tools, that are required to preserve the capital investment in the Control Centre that was made by the Employer. The maintenance works shall include, but not be limited to, routine and ad hoc maintenance activities such as the following:</p> <ul style="list-style-type: none"> • Day to day cleaning and maintenance work. • Touch-up painting as and when required. • Maintenance of gardens. • Waterproofing as and when required <p>The unit of measurement shall be a month for the maintenance of the Control Centre and all remote plaza buildings and structures.</p> <p>Payment shall be made to the Contractor on a monthly basis (pro-rata during the first month) based on the tendered rate in Schedule of Payments for the duration of the Operation Service Period.</p>	

Item No.	Description	Unit
A-5102	Toll lanes and toll lane areas	
	<p>In terms of this item, the Contractor shall comply with the requirements related to the maintenance of the Toll Lanes and the Toll Lane areas in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a.</p> <p>The rate per month as tendered under this item shall include full compensation for the monthly maintenance of the toll booths and /or structures that comprise the Toll Lane areas. The maintenance works shall include all work, replacement and reparations and all work, including spares and tools, that are required to preserve the capital investment in the that was made by the Employer. The maintenance works shall include, but not be limited to, routine and ad hoc maintenance activities such as the following:</p> <ul style="list-style-type: none"> • Day to day cleaning and maintenance work • Touch-up painting as and when required • Waterproofing as and when required. 	

The unit of measurement shall be a month for the Toll Lane maintenance. Payment shall be made to the Contractor on a monthly basis (pro-rata during the first month), based on the tendered rate in Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
A-5103	Provision for Painting of buildings and structures	Month

In terms of this item, the Contractor shall comply with the requirements related to the re-painting of buildings and structures as specified in the Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Maintenance – Volume 2 Book 3 and with other related clauses, specified in project documents. The repainting may include the interior, exterior and roof painting except for the canopy.

The tendered rate shall represent full compensation for the re-painting of buildings and structures as required.

The unit of measurement shall be monthly.

Payment shall be made to the Contractor on a monthly basis based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service period.

Item No.	Description	Unit
A-5104	Corrosion protection of steel structures	Month

In terms of this item, the Contractor shall comply with the requirements related to the corrosion protection of buildings and structures in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Maintenance – Volume 2 Book 3 and with other related calluses specified in the Project Documents.

The tendered rate shall represent full compensation for the corrosion protection of steel structures as required.

The unit of measurement shall be monthly.

Payment shall be made to the Contractor on a monthly basis based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

A-5200 ELECTRICAL & MECHANICAL (E&M) AND HANDYMAN MAINTENANCE

Item No.	Description	Unit
A-5201	<p>Electrical maintenance: Control Building, Virtual Plazas and Toll Lane Areas.</p> <p>In terms of this item, the Contractor shall comply with the requirements related to Electrical maintenance for the Control Building, Virtual Plazas and Toll Lane Areas as specified in Volume 2 Book 3 Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Equipment.</p> <p>The tendered rate per month shall include full compensation for all the monthly maintenance of the electrical installations at the above facilities (excluding specialist maintenance of Employers Equipment), including maintenance of electrical supply, electrical systems and distribution boxes, network and general lighting in accordance with Standard Specifications for Operations and Maintenance of Toll Projects: Electrical and Mechanical Equipment Volume 2 Book 3.</p> <p>The tendered rate further includes all the routine checks and first-line maintenance on the Employers Equipment such as generator/s.</p> <p>The maintenance of the electrical installations is to ensure that the facilities and equipment can function normally and as intended without causing disruptions and/or delays in the functions performed within the various facilities.</p> <p>The unit of measurement shall be a month for the maintenance of the electrical installations at the various facilities.</p> <p>Payment shall commence from the date of hand-over of each facility to the Contractor. Payment shall be made on a monthly basis (pro-rata during the first month) based on tendered rate in Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.</p>	Month

Item No.	Description	Unit
A-5202	<p>Mechanical Maintenance: Control Building, Virtual Plazas and Toll Lane Areas</p> <p>In terms of this item, the Contractor shall comply with the requirements related to Mechanical maintenance for the Control Building, Virtual Plazas and Toll Lane Areas as specified in Volume 2 Book 3 Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Equipment.</p> <p>The tendered rate per month shall include full compensation for all the monthly maintenance of the mechanical installations at the above facilities (excluding specialist maintenance of Employers Equipment), including maintenance air-conditioning, maintenance on area lighting and general lighting in accordance with Standard Specifications for Operations and Maintenance of Toll Projects: Electrical and Mechanical Equipment Volume 2 Book 3.</p> <p>The tendered rate further includes all the routine checks and first-line maintenance on the Employers Equipment such as ventilation systems.</p>	Month

The maintenance of the mechanical installations is to ensure that the facilities can function normally and as intended without causing disruptions and/or delays in the functions performed within the various facilities.

The unit of measurement shall be a month for the maintenance of the mechanical installations at the various facilities.

Payment shall commence from the date of hand-over of each facility to the Contractor. Payment shall be made on a monthly basis (pro-rata during the first month) based on the tendered rate in Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
A-5203	Handyman services: Control Building, Virtual Plazas and Toll Lane Areas	Month
	In terms of this item, the Contractor shall comply with the requirements related to handyman services for the Control Building, Virtual Plazas and Toll Lane Areas as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The tendered rate per month shall include full compensation for the monthly handyman services which shall include, but not be limited to window and glazing repairs, door handle and lock repairs, ceiling repairs, roofing repairs, gutter repairs, plumbing repairs and the reparation of security gates and fencing, in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a.	
	The unit of measurement shall be a month for the delivery of handyman services at the relevant facility.	
	Payment shall commence from the date of hand-over of each facility to the Contractor. Payment shall be made on a monthly basis (pro-rata during the first month) based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-5204	Provision for E&M specialist maintenance: Generator Maintenance	Month
	In terms of this item, the Contractor shall comply with the requirements related to generator maintenance as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The management of the Employers Equipment after Defects Liability Period has lapsed, shall be performed by the Contractor. The tendered rate shall include for all costs, overhead charges and profits to manage and administer the specialist maintenance services during this period in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a. The management shall include, amongst others, frequent inspections, checks, and notifications to the supplier of the Employers Equipment at the various facilities.	

The unit of measurement shall be month for the provision of generator maintenance. Payment will be made to the Contractor on a monthly basis based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
A-5205	Provision for E&M specialist maintenance: UPS maintenance	Month
	In terms of this item, the Contractor shall comply with the requirements related to UPS maintenance as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The management of the Employers Equipment after Defect Liability Period has lapsed, shall be performed by the Contractor. The tendered rate shall include for all cost, overhead charges and profit to manage and administer the specialist, maintenance services in accordance with the Standard specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a.	
	The maintenance shall include, amongst others, frequent inspections, checks and notifications to the supplier of the Employers equipment at the various facilities.	
	The unit of measurement shall be month for the provision of UPS maintenance.	
	Payment to the Contractor will be on a monthly basis based on tendered rate on the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-5206	Provision for E&M specialist maintenance: Earthing tests	Month
	In terms of this item, the Contractor shall comply with the requirements related to Earthing tests as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The maintenance of the Employers Equipment after Defects Liability Period has lapsed, shall be performed by the Contractor. The monthly rate shall include for all costs, overhead charges and profits to manage and administer the specialist maintenance services in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a. The maintenance shall include, amongst others, frequent inspections, checks, and notifications to the supplier of the Employers equipment at the various facilities.	
	The unit of measurement shall be month for the provision of Earthing tests.	
	Payment to the contractor will be made on a monthly basis based on tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-5207	Provision for E&M specialist maintenance: Road Lighting Maintenance (Including Group Lamp Replacement	Month

In terms of this item, the Contractor shall comply with the requirements related to Road Lighting maintenance as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.

The maintenance of the Employers Equipment after Defects Liability Period has lapsed, shall be performed by the Contractor. The tendered rate shall include for all costs, overhead charges and profits to manage and administer the specialist maintenance services in accordance with Standard Specifications for Operations and Maintenance of CTROM Projects: General Volume 2 Book 2a. The management shall include, amongst others, frequent inspections, checks, lamp and group-lamp replacements and notifications to the supplier of the Employers equipment at the various facilities.

The unit of measurement shall be month for the provision of road lighting maintenance.

Payment to the contractor will be made on a monthly basis based on the tendered rates on the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

A-5300 TOLL SYSTEM MAINTENANCE

Item No.	Description	Unit
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A-5301	Toll System Software support	Month
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In terms of this item, the Contractor shall comply with the requirements related to the Toll System Software support as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General. The tendered rate shall include for, amongst others for the maintenance and support of:

- MIS System,
- AVC Systems,
- Toll Lane Systems
- DCS System,
- Communications Systems,
- All workstations

The tendered rate per month shall include full compensation for the monthly software-related support of the Toll Systems. This includes for the software support of all the MIS and Lane related systems at the Control Centre and remote locations including the communications systems. The support shall include all the scheduled and routine support activities, ad-hoc support, emergency support as well as providing all labour and tools.

The support of the Toll System is to ensure that the equipment and systems will function normally and as intended to ensure that the required performance of the systems is achieved.

The unit of measurement shall be a month for the Toll System Software support.

Payment shall be made to the Contractor on a monthly basis based on the tendered rates in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
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A-5302	Toll System Equipment and Hardware Maintenance	Month
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In terms of this item, the Contractor shall comply with the requirements related to the Toll System Equipment and Hardware Support as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General. The tendered rate shall include for, amongst others for the hardware maintenance of Back Office and Lane related equipment that consist (amongst others) of:

- MIS System,
- AVC Systems,
- Toll Lane Systems and peripheral equipment
- DCS System,
- Communications Systems,

- All workstations

The tendered rate per month shall include full compensation for the monthly hardware-related maintenance of the systems, such as the servers, AVC's, Lane controllers etc.. This includes for the maintenance of all equipment and systems at the Control Centre and toll lane areas. The maintenance shall include all the scheduled and routine maintenance, ad-hoc maintenance, break-down maintenance, emergency repairs inclusive of providing spares and/or swap-out equipment as well as providing all labour and tools.

This maintenance is to ensure that the equipment and systems will function normally and as intended to ensure that the required performance of the systems is achieved.

The unit of measurement shall be a month for the maintenance and support.

Payment shall be made to the Contractor on a monthly basis based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
A-5303	Toll System maintenance and support: Queue Length System (QLS)	Month
	In terms of this item, the Contractor shall comply with the requirements related to the Queue Length System and maintenance and support as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The tendered rate per month shall include full compensation for the monthly hardware- and software-related maintenance and support of the QLS. This includes for the maintenance and support of all equipment and systems at the Control Centre and remote locations.	
	The maintenance and support shall include all the scheduled and routine software support and hardware maintenance, ad-hoc maintenance, break-down maintenance, emergency repairs inclusive of providing spares and/or swap-out equipment as well as providing all labour and tools.	
	The maintenance and support of the QLS systems is to ensure that the equipment and systems will function normally and as intended to ensure that the required performance of the systems is achieved.	
	The unit of measurement shall be a month for the maintenance and support of the QLS.	
	Payment shall be made to the Contractor on a monthly basis based on the tendered rate in the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-5304	Toll System Maintenance and Support: Video Grabbing System (VGS)	Month
	In terms of this item, the Contractor shall comply with the requirements related to the VGS maintenance and support as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The tendered rate per month shall include full compensation for the monthly hardware- and software-related maintenance and support of the VGS systems. This includes for the	

maintenance and support of all equipment and systems at the Control Centre and remote locations.

The maintenance and support shall include all the scheduled and routine software support and hardware maintenance, ad-hoc maintenance, break-down maintenance, emergency repairs inclusive of providing spares and/or swop-out equipment as well as providing all labour and tools.

The maintenance and support of the VGS is to ensure that the equipment and systems will function normally and as intended to ensure that the required performance of the systems is achieved.

The unit of measurement shall be a month for the maintenance and support of the VGS systems.

Payment shall be made to the Contractor on a monthly basis based on the tendered rate on the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.

Item No.	Description	Unit
A-5305	Toll System Maintenance and Support: Customer Service Work Stations and related equipment	WS-Month
	In terms of this item, the Contractor shall comply with the requirements related to the Customer Service Work Stations and related equipment as specified in Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The tendered rate per month shall include full compensation for the monthly hardware- and software-related maintenance and support of the workstations. This includes for the maintenance and support of all workstations at the Control Centre and remote locations.	
	The maintenance and support shall include all the scheduled and routine software support and hardware maintenance, ad-hoc maintenance, break-down maintenance, emergency repairs inclusive of providing spares and/or swop-out equipment as well as providing all labour and tools.	
	The maintenance and support of the workstations is to ensure that the equipment and systems will function normally and as intended to ensure that the required performance of the systems is achieved.	
	The unit of measurement shall be workstation month for the maintenance and support of the workstations.	
	Payment shall be made to the Contractor on a monthly basis based on the tendered rate on the Schedule of Payments/Cost Matrix for the duration of the Operation Service Period.	

Item No.	Description	Unit
A-5306	Provision of and Maintenance of Toll System Help Desk System	Month
	In terms of this item, the Contractor shall comply with the requirements related to the provision, operations and maintenance of a Toll System Help Desk as specified in Clause 14.4.3 of Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	

The tendered rate under this item shall include for full compensation for the design, development, testing, installation and commission of a Help Desk System, as well as for the operations and maintenance thereof.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

Item No.	Description	Unit
A-5307	Provision and Maintenance of Asset Management System (AMS)	Month
	In terms of this item, the Contractor shall implement an electronic Asset Management System in terms of Clause 14 of Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and all other related Clauses and requirements specified in the Contract.	
	The tendered rate shall represent full compensation to the Contractor for the supply, implementation, operation, maintenance and update of the electronic Asset Management System for the duration of the Contract in terms of Clause 14 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and other related Clauses and requirements specified in the Contract Document.	
	The Contractor shall price on a monthly basis in the Schedule of Payment/Cost Matrix to implement, maintain and to update the electronic Asset Management System to the approval of the Employer's Representative for the duration of the Contract.	

Item No.	Description	Unit
A-5308	Hand-Back of Toll System	Lump Sum
	The Lump Sum tendered for under this item is for the Hand-Back of the Toll System in terms of Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.	
	The Lump Sum tendered shall provide full compensation for the hand-back of the entire Toll System after Contract termination to ensure that the Toll system is fully functional, that all outstanding maintenance and support-related actions are complete and that all defects are corrected.	
	The Lump Sum shall further provide full compensation for a full complement of spares and tools to be handed over to the Employer to facilitate the on-going maintenance and support of the Toll System.	
	Payment shall be made to the Contractor after the successful hand-back of the System and hand-over of the spares and tools as approved by the Employer.	

A-6000 TOLL ROAD SERVICES

Item No.	Description	Unit
A-6001	<p>Participation in Incident Management System procedures and structures</p> <p>In terms of this item, the Contractor shall participate in the Incident Management System (IMS) procedures and structures as implemented on the Toll Road in terms of Clause 19 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and all other related Clauses and requirements specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor for the participation in the IMS activities that includes, but is not limited to feedback and input into the IMS process, attendance of IMS meetings, training of relevant Contractor's staff, attending de-briefing sessions for the duration of the Contract in terms of Clause 19 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and other related Clauses and requirements specified in the Contract Document.</p> <p>The Contractor shall price on a monthly basis in the Schedule of Payment/Cost Matrix to participate in the IMS process to the approval of the Employer's Representative for the duration of the Contract.</p>	Month
A-6002	<p>Provision for Supply, Implementation, Operations and Maintenance of Route Patrol Services</p> <p>In terms of this item, the Contractor shall provide the route patrol services on the Toll Road in terms of Clause 19 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and all other related Clauses and requirements specified in the Contract.</p> <p>The tendered rate shall represent full compensation to the Contractor for the route patrol services for the duration of the Contract that includes, but is not limited to the performance of the route patrol activities and adherence of the route patrol frequencies as specified; the provision of the required number and suitable skilled staff as required; the provision of the specified number and type of patrol vehicles with the required equipment in terms of Clause 19 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and other related Clauses and requirements specified in the Contract Document.</p> <p>The Contractor shall price on a monthly basis in the Schedule of Payment/Cost Matrix to provide route patrol services to the approval of the Employer's Representative for the duration of the Contract.</p>	Month
A-6003	<p>Provision for Supply, Implementation, Operations and Maintenance of Route Customer Service Call Centre</p> <p>In terms of this item, the Contractor shall provide the Customer call centre on the Toll Road in terms of Clause 19 of the Standard Specifications for Operations and Maintenance:</p>	Month

General – Volume 2 Book 2a and all other related Clauses and requirements specified in the Contract.

The tendered rate shall represent full compensation to the Contractor for the Customer call centre for the duration of the Contract that includes, but is not limited to the provision of the required number and suitable skilled staff as required; the performance of the Customer call centre activities; adherence of the call centre manning hours as specified and the provision of the required call centre system in terms of Clause 19 of the Standard Specifications for Operations and Maintenance: General – Volume 2 Book 2a and other related Clauses and requirements specified in the Contract Document.

The Contractor shall price on a monthly basis in the Schedule of Payment/Cost Matrix to provide Customer call centre services to the approval of the Employer's Representative for the duration of the Contract.

A-7000: SAFETY AND SECURITY

Item No.	Description	Unit
A-7001	<p>Procurement, Upgrade and Maintenance of Security systems at Plaza Buildings, Lane Area and Remote Plazas (Sensor, cameras, etc)</p> <p>The monthly tendered rate for under this item, is for the provision of Security systems complete per Control Centre in terms of Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific.</p> <p>The tendered amount under this item shall include for full compensation for the supply, installation, testing and commissioning of the security system with intrusion alarms, and including a security camera system at each location including but not limited, all software and licences, hardware, cabling, installation, Contractor's internal testing and testing by the Employer, earthing etc.</p> <p>The security camera system shall include the necessary cameras as specified at the various locations, monitors, DVR's and at least one 40" video screen at the operations room, and as specified in Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	Month
A-7002	<p>Procurement, Upgrade and Maintenance of Security systems in toll booths in mainline, ramp and remote plazas (sensor, cameras, etc)</p> <p>The Lump Sum tendered for under this item, is for the provision of Security systems within all toll booths complete in terms of Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific.</p> <p>The Lump Sum tendered shall include for full compensation for the supply, installation, testing and commissioning of the security system for monitoring the toll booths, including but not limited, all software and licences, cameras in all toll booths hardware, cabling, installation, Contractor's internal testing and testing by the Employer, earthing etc, as specified in Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	Month
A-7003	<p>Support, installation and maintenance of Fire Suppression System in server room(s) and UPS room</p>	Month

The monthly tendered for under this item, is for the provision of Fire Suppression System complete per Control Centre in terms of Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific.

The monthly tendered under this item in the server room(s) and UPS room(s) of the Control Centre shall include for full compensation for the supply, installation, testing and commissioning of the Fire Suppression System, as specified in Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific, including but not limited, all software and licences, hardware, cabling, installation, Contractor's internal testing and testing by the Employer, etc.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

A-8000 QUALITY ASSURANCE SYSTEM

Item No.	Description	Unit
A-8001	Establishment of Quality Assurance System	Lump Sum

The Lump Sum tendered under this item shall represent full compensation for instituting a quality assurance system as specified in Clause 4.9 of FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and to comply with the requirements specified in clause 15.5 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a). Payment of the Lump Sum will be made after an audit of the system by the Employer's Representative has shown it to be of the required standard.

The Lump Sum shall represent full compensation for the submission of a Quality Assurance System, as specified.

Item No.	Description	Unit
A-8002	Maintenance of Quality Assurance System	Month

In terms of this item, the Contractor shall comply with all the requirements related to the management, execution and maintenance of a Quality Assurance System as specified in Clause 4.9 of FIDIC General Conditions of Contract for Design, Build and Operate Projects – Volume 1 Book 1 (2008) and with the requirements specified in clause 15.5 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).

The tendered rate shall represent full compensation to the Contractor to comply with all requirements related to the management, execution and maintenance of the Quality Assurance System as specified in Clause 4.9 of the FIDIC General Conditions of Contract for Design, Build and Operate Projects and with the requirements specified in Clause 15.5 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General – Volume 2 Book 2a for the duration of the Contract.

The payment to the Contractor will be made monthly based on the tendered rates in the Schedule of Payments for the duration of the Operation Service Period, provided that the Contractor has complied with the above-mentioned requirements.

A-9000 REPORTING

Item No.	Description	Unit
A-9001	Reporting	Month

In terms of this item, the Contractor shall comply with all the requirements related to the submission of Reports specified in Clause 18 of the Standard Specifications for the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a) and with the requirement specified in the Project Document (Volume 3).

The tendered rate shall represent full compensation to the Contractor to comply with all requirements related to the submission of reports specified in Clause 18 of the Standard Specifications of the Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a) and with requirements specified in of the Project Document (Volume 3).

The payment to the Contractor will be paid monthly based on the tendered rates in the Schedule of Payments for the duration of the Operation Service Period.

A-10000 PROVISIONAL SUMS

Item No.	Description	Unit
A-10001	Provision for the Repair of Employer's Assets	
	a) Provisional Sum for repair of Employers Assets	Prov Sum
	b) Provision for overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional repair of any Employer's Assets in any Plaza building, in the Toll Lane area and/or Toll Booth

The Provisional Sum provided under this item a) to cover the cost of the possible additional repair of any Employer's Assets shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor's procurement and management of quotations and the management of execution of additional repair of any Employer's Assets, when requested to do so by the Employer.

Item No.	Description	Unit
A-10002	Provision for the Repair of Electrical and Mechanical Assets	
	a) Provisional Sum for repair of Electrical and Mechanical Assets	Prov Sum
	b) Provision for overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional repair of Electrical and Mechanical Assets in any Plaza building, in the Toll Lane area and/or Toll Booth

The Provisional Sum provided under this item a) to cover the cost of the possible additional repair of Electrical and Mechanical Assets shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor's procurement and management of quotations and the management of execution of additional repair of Electrical and Mechanical Assets, when requested to do so by the Employer.

Item No.	Description	Unit
A-10003	Provision for the Repair of Toll System Assets	
	a) Provisional Sum for repair of Toll System Assets	Prov Sum
	b) Provision for overhead charges and profit in respect of aforementioned item	Percentage (%)
	<p>The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional repair of Toll System Assets in any Plaza building, in the Toll Lane area and/or Toll Booth</p> <p>The Provisional Sum provided under this item a) to cover the cost of the possible additional repair of Toll System Assets shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer’s Representative.</p> <p>The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor’s procurement and management of quotations and the management of execution of additional repair of Toll System Assets, when requested to do so by the Employer.</p>	

Item No.	Description	Unit
A-10004	Community Participation as described in Project Document (Volume 3) Book 1 (If triggered)	
	a) Community Participation as described in Project Document (Volume 3) Book 1 (If triggered)	Prov Sum
	b) Provision for overhead charges and profit in respect of aforementioned item	Percentage (%)
	<p>The Provisional Sum provided under this item will be used by the Contractor to perform the required community participation activities in terms of Clause C3.4 of Project Document (Volume 3) Book 1. The Contractor shall, however, be obliged to submit a community participation proposal with associated hourly and other costs for the approval of the Employer prior to undertaking the required community participation. The hourly rates in such a proposal shall not exceed a rate of 15c per R100 of the proven annual salary of the relevant staff of the Contractor.</p> <p>The Provisional Sum provided under sub-item A-10004 a) to cover the cost of community participation shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer’s Representative.</p>	

The percentage tendered under sub-item A-10004 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item A-10004 a) and shall cover the Contractor's procurement and management of quotations and the management of the execution of community participation, provided that the proposal of the Contractor in this regard has been approved by the Employer.

Item No.	Description	Unit
A-10005	Telecommunication Services – Broadband Service for Remote Access to QLS (Application, Installation, Rental and Usage	
	a) Telecommunication Services – Broadband Service for Remote Access to QLS (Application, Installation, Rental and Usage	Prov Sum
	b) Provision for Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for the provision of telecommunications services

The Provisional Sum provided under this item a) to cover the cost of the provision of telecommunications services shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor's procurement and management of quotations and the management of execution of provision of telecommunications services, when requested to do so by the Employer.

Item No.	Description	Unit
A-10006	Provision for ETC-related Marketing	
	a) Contractor's execution of parts of Employer's marketing plan through an expert communication company(ies)	Prov Sum
	b) Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under item A-10006 a) will be used by the Contractor, if requested to do so by the Employer, to request marketing proposals for the enhancement of the Employer's marketing plans. This may include a marketing campaign to promote Account registration and Tag use by Users.

The Provisional Sum provided under item A-10006 a) to cover the cost of the possible additional marketing campaigns (which are to be executed by an expert communication company(ies)) shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under item A-10006 b) for overhead charges and profit shall be applied to the actual expenditure in terms of item A-10006 a) and shall cover the Contractor's procurement and management of quotations and the management of execution of marketing campaigns, when requested to do so by the Employer.

Item No.	Description	Unit
A-10007	Provision for transportation and deposition of cash from the Customer Service Kiosks	
a)	Transportation and deposition of cash from the Customer Service Kiosks	Prov Sum
b)	Overhead charges and profit	Percentage (%)

The Provisional Sum provided under item A-10007 a) will be used by the Contractor, if requested to do so by the Employer, to transport cash from the various Customer Service Kiosks remote from the Control Centres and deposit it into the Joint Employer/Contractor account.

The Provisional Sum provided under item A-10007 a) to cover the cost of transportation and deposition of cash from the Customer Service Kiosks shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under item A-10007 b) for overhead charges and profit shall be applied to the actual expenditure in terms of item A-10007 a) and shall cover the Contractor's procurement and management of quotations and the management of the sub-contractor responsible for the transportation and deposition of cash.

Item No.	Description	Unit
A-10008	Space Rental for Permanent and Temporary Customer Service Kiosks	
c)	Space rental for Customer Service Kiosks	Prov Sum
d)	Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under sub-item A-10008 a) will cover the space rental for permanent and temporary Customer Service Kiosks. The Provisional Sums shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.

The percentage tendered under sub-item A-10008 b) for overhead charges and profits shall be applied to the actual expenditure in terms of sub-item A-10008 a) and shall cover the

Contractor's procurement and management of quotations for space rental and the on-going management of the space rental when requested to do so by the Employer.

Item No.	Description	Unit
A-10009	Manual Lanes credit card transactions: Fees/Commissions related to banks for credit card transactions during the Operation Period	
a)	Fees/Commission	Prov Sum
b)	Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under sub-item A-10009 a) will be used to pay the fees/commission related to credit cards in terms of merchant and other agreements to be entered into by the Employer.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects."

The percentage tendered under sub-item A-10009 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item A-10009 a).

Item No.	Description	Unit
A-10010	ETC Account Payments: Fees/commissions related to banks and other providers of payment means during the Operation Period	
a)	Fees/Commission	Prov Sum
b)	Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under sub-item A-10010 a) will be used to pay the fees/commission related to providers of payments means and to banks in respect of bank issued cards in terms of merchant and other agreements to be entered into by the Employer.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects."

The percentage tendered under sub-item A-10010 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item A-10010 a).

Item No.	Description	Unit
A-10011	Fees related to TCH services	
a)	Fees	Prov Sum
b)	Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under sub-item A-10011 a) will be used to pay for fees related to TCH services in terms of the Service Level Agreement to be signed between the Employer/TCH and the Contractor and as indicated in Volume 2 Book 7a, Part A, Payment Methodology, Clause 7.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects.”

The percentage tendered under sub-item A-10011 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item A-10011 a).

**SECTION 3. DESCRIPTION OF PAYMENT ITEMS – B-SERIES:
DESIGN-BUILD**

B-SERIES: DESIGN-BUILD**B-1000 GENERAL CONTRACTOR'S OBLIGATIONS**

Item No.	Description	Unit
B-1001	Contractor's General Obligations and Establishment at contract commencement date for the Design-Build Period	
	a) Fixed obligations for Design-Build and Operations	Lump Sum
	b) Time-related obligations for Design-Build and Operations	Month
	The total tendered or Establishment shall not exceed 15% (fifteen percent) of the Design-Build tendered amount, Provisional Sums excluded.	
	This item is to make provision for all the Contractor's general obligations and establishment in accordance with Clause 4 of The FIDIC Conditions of Contract for Design, Build and Operate Projects (2008) Volume 1 Book 1.	
	Payment of the Lump Sum tendered under sub-item a) and the monthly amounts tendered under sub-item b) shall include full compensation for all the Contractor's charges in respect of his General Obligations, as contained in the referenced FIDIC Clause, inclusive of the following items:	
	i. Setting up, accommodating and maintaining his organisation during the Design-Build Period, the procurement, accommodation and storage of Contractor's Documents and Contractor's Equipment and Materials at various Plaza Control Centres, the permanent and temporary Customer Service Kiosks, and its removal on completion of the Contract. This excludes the Employer's Facilities and Employer's Equipment that belong to the Employer.	
	ii. All human and other resources, including temporary office space, required for the planning, directing, organising, co-ordination, control and execution of all Design-Build and Operations activities, including testing activities, that are not covered by other payment items in this Schedule of Payments.	
	iii. All human and other resources required for the planning, directing, organising, co-ordination, control and execution of all Design-Build Period activities, including for Operations activities, that are not covered by other payment items in this Schedule of Payments.	
	iv. The Contractor's Equipment (tools, spares, furniture and the like) to be procured for all Design-Build and Operations functions and activities and all Project sites from Contract award to Contract completion.	
	v. The development of all required Design-Build and Operations documentation that is not specifically provided in the Schedule of Payments.	
	vi. Complying with the requirements of the General and Particular Conditions of the Contract and of the Specifications. This shall also include the attendance of and participation in all meetings during the Design-Build period.	

- vii. All general Site and office overheads, profit, financing costs, risks, legal and contractual responsibilities, security, utility costs, e.g. electricity, water, municipal service charges, levies and taxes, fuel, telecommunications, data communication (including back-up communication) toll fees and other costs and obligations of a preliminary or general nature which are not specifically measured for payment under any other item of payment.

The Lump Sum tendered under sub-item (a) shall represent full compensation for the fixed part of the Contractor's general obligations, i.e. that part which is substantially fixed and is not a function of the time required for the completion of the contract or of the value of the work.

Payment of this Lump Sum will be made in three instalments, as follows:

- i. The first instalment, 50% of the Lump Sum, will be paid in the payment certificate after the Contractor has provided the Performance Security and has progressed in terms of the approved programme.
- ii. The second instalment, 35% of the Lump Sum (excluding the Provisional Sums), will be paid when the value of the Section 2 Design-Build work performed reaches one-half of the tendered amount.
- iii. The third instalment, 15% of the Lump Sum, will be paid after Provisional Compliance of Section 2 of the Design-Build Period has been reached.

The tendered rate for the time related obligations represents full compensation for that part of the Contractor's general obligations which are mainly a function of construction time and establishment for Operations and any other costs and obligations of a preliminary or general nature which are not specifically measured for payment under any other item of payment. The tendered rate will be paid monthly, from the Commencement Date, provided that:

- i. should the Works be certified as having been completed before the contractual date for completion of the Works, the Contractor will then be entitled to payment in regard to the remaining period for completion;
- ii. should the progress of the Contractor in terms of the value of work done be in arrear in regard to the approved original programme, payments in respect of this item may be limited to payments for this period, which, in his original programme (after suitable adjustments in respect of the extension of time granted) agree with the actual value of work done.
- iii. The second and subsequent monthly payment for time-related obligations will be subject to the delivery and approval of the:
 - Quality Assurance Plan
 - Health and Safety Plan

The adjustments in this item will be made only if the value of the work or the period for completion were to change due to modifications by the Employer and it is agreed that such adjustments will be in full settlement of the changed compensation for amended general obligations.

Item No.	Description	Unit
B-1002	Allowance for person-hours for Variations	
	a) Project Manager	Person-hrs
	b) Senior Hardware and/or Software Engineer	Person-hrs
	c) Junior Hardware and/or Software Engineer	Person-hrs
	d) Installation and/or Training Manager	Person-hrs
	e) Installer	Person-hrs
	f) Labourer	Person-hrs
	g) Maintenance Technician	Person-hrs
	h) Trainer	Person-hrs
	i) QA Manager	Person-hrs
	j) Testers	Person-hrs

The Contractor shall provide person-hour rates for all the job-types and job-levels as indicated in the Schedule of Payments to enable management, analyst, design, development, coding, maintenance, training and support services and the like as required for this project. These rates shall be used in cases where the Employer instructs the Contractor to provide cost proposals for Variations requested by the Employer.

B-2000 TOLL SYSTEMS – PLAZA/CONTROL CENTRE LEVEL: CONVENTIONAL PLAZAS AND CONVENTIONAL PART OF A CONVENTIONAL / ORT PLAZAS

Item No.	Description	Unit
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B-2001	Provision of Toll System Software and Hardware: Back-Office System.	Lump Sum
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The Lump Sum tendered for under this item, is for the provision of Back Office software and server hardware in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The Lump Sum shall include full compensation for the delivery of the complete software of the Back Office System. It shall include for all the software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.

The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the server/s and work stations and printers, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The server/s will be located at the Control Centre.

Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.

Item No.	Description	Unit
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B-2002	Provision of Toll System Software and Hardware: Video Grabbing System (VGS)	Lump Sum
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The Lump Sum tendered for under this item, is for the provision of Video Grabbing System (VGS) software and server hardware in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The Lump Sum tendered shall include full compensation for the delivery of the complete software of the VGS System. It shall include for all software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.

The Lump Sum tendered shall provide for a phasing for implementation of the VGS System, namely an initial "stand-alone" system before the upgrading/implementation of the new Toll Lanes and thereafter the full integrated VGS implementation.

The Lump Sum tendered shall also provide for the full integrated VGS System with the Lane System together with upgrading/implementation of the new Toll Lanes and thereafter the full integrated VGS implementation.

The Lump Sum tendered shall include for full compensation for the supply, installation, testing and commissioning of the server/s and work stations and printers, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The server/s will be located at the Control Centre.

Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.

Item No.	Description	Unit
B-2003	Provision of Toll System Software and Hardware: Queue Length Monitoring System (QLS)	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of Queue Length Monitoring System (QLS) software and server hardware in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum tendered shall include full compensation for the delivery of the complete software of the QLS System. It shall include for all software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the server/s and work stations and printers, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The server/s will be located at the Control Centre.</p> <p>Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.</p>	

Item No.	Description	Unit
B-2004	Provision of Toll System Software and Hardware: Data Concentrate System (DCS)	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of Data Concentrate System (DCS) software and server hardware in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum shall include full compensation for the delivery of the complete software of the DCS System. It shall include for all software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the server/s and work stations and printers, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The server/s will be located at the Control Centre.</p> <p>Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.</p>	

Item No.	Description	Unit
B-2005	Provision of Toll System Software and Hardware: Provision of Back Office Servers storage hardware and archive system complete	

The Lump Sum tendered for under this item, is for the provision of Back Office Servers storage hardware and archive system in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The Lump Sum amount shall include full compensation for the delivery of the complete software of the storage and archive system. It shall include for all software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.

The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the server/s and work stations and printers, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The server/s will be located at the Control Centre.

Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.

Item No.	Description	Unit
B-2006	Additional software and licences complete	Lump Sum

The Lump Sum tendered for under this item, is for the provision of additional software and licences complete, in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a) in order for the Contractor to fulfil his obligations under the Contract.

The Lump Sum tendered shall include full compensation for the delivery of the complete software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences. The Contractor shall provide a list and detail of additional software implemented.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

Item No.	Description	Unit
B-2007	Provision of Toll System Software and Hardware: Work stations for Customer Service operations at the Control Centre and/or remote Plazas. (If triggered)	No.

The tendered rate for under this item, is for the provision of CS work stations in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The tendered rate shall include for full compensation for the supply, installation, testing and commissioning of the work-stations and 3rd party software including but not limited to all cabling, drivers, Contractor's internal and milestone testing, etc, but including the installation of the application software (priced elsewhere). The workstations shall consist of the computer, screen, keyboard, card reader, mouse, Tag Reader, Barcode Scanner and Integrated POS connected to the Control Centre LAN.

The unit of measurement shall be the number of work stations and printers.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

Item No.	Description	Unit
B-2008	LAN and network connections: Provision and installation of 1000 MBps network for all workstations, printers, network equipment and fail over or standby devices complete	Lump Sum

The Lump Sum tendered under this item in accordance with the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a), for the full-duplex 1000 Mbps or 1 Gigabit Ethernet network (LAN), or better, shall include for full compensation for the fixed rate component for the supply, installation, testing and commissioning of the LAN equipment complete at the Control Centre, including but not limited to, all application and 3rd party software and licences, firmware, hardware, cabling, installation, configuration and segmentation, Contractor's internal and milestone testing, earthing and the like, as indicated in the referenced specification. Trunking or conduits will be supplied in the buildings.

The rate per LAN point shall include for each LAN point supplied with Category 6 cable. The cabling shall be certified for 20 years.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

Item No.	Description	Unit
B-2009	Detection System for Vehicles of Special Interest (VOSI) (If triggered)	Lump Sum

The Lump Sum tendered for under this item, is for the provision of a detection system for Vehicles of Special Interest (VOSI), in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The Lump Sum tendered shall include full compensation for the delivery of the complete software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.

The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of any equipment, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The detection system will be located at the Control Centre and interfaced with external parties as required.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

Item No.	Description	Unit
B-2010	<p>Detection System for Vehicles Exceeding the Legal Vehicle Height. (If triggered)</p> <p>The Lump Sum tendered for under this item, is for the provision of a detection system for vehicles exceeding the legal vehicle height, in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum tendered shall include full compensation for the delivery of the complete software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of any equipment, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The detection system with sensor's within the Toll Lanes will be located at the Control Centre and interfaced with external parties as required.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	Lump Sum

B-3000 TOLL SYSTEMS – LANE AREA RELATED: CONVENTIONAL PLAZAS AND CONVENTIONAL PART OF CONVENTIONAL / ORT PLAZAS

Item No.	Description	Unit
B-3001	<p>Provision of Toll System Software and Hardware: AVC System for Mixed Manual/ETC Lanes and/or Dedicated ETC Lanes.</p> <p>The Lump Sum tendered for under this item, is for the provision of AVC System for Mixed Manual/ETC Lanes and/or Dedicated ETC Lanes in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum tendered shall include full compensation for the delivery of the complete AVC software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p> <p>The Lump Sum tendered under the above item shall include for full compensation for the complete equipment/hardware supply, installation, commissioning and/or upgrade, including but not limited to the AVC Controller, interfacing to the Lane controller and DCS, LAN and Network connections complete; All fixing mechanisms (e.g. clamps, arms, brackets, poles); and any other equipment not included in items above required for the successful AVC functionality and operations.</p> <p>The Lump Sum tendered shall further include for all 3rd party software and licences, contractors internal and milestone testing etc.</p> <p>Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.</p>	Lump Sum

Item No.	Description	Unit
B-3002	<p>Provision of Toll System Software and Hardware: Mixed Manual/ETC Lanes for single direction lanes.</p> <p>The Lump Sum tendered for under this item, is for the provision of Mixed Manual/ETC Lanes for single direction lanes in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum tendered shall include full compensation for the delivery of the complete Mixed Manual/ETC software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p> <p>The Lump Sum tendered under the above item shall include for full compensation for the complete equipment/hardware supply, installation, interfacing to the MIS and AVC, commissioning and/or upgrade, including but not limited to the Lane Controller (computer, screen); Toll Lane Keyboard; Manual Booth Controller (MBC); Card reader; Printer; ETC Tag reader; VGS Camera; SQL Camera; Traffic Light; Over head lane sign (OHLS); Entry Boom (manual); Exit Boom (automatic); User Fare Display (UFD); Loadshift gauge; Tariff board; Panic button; Cash tray; Intercom system (Unit per lane); LAN and Network connections complete; All fixing mechanisms (e.g. clamps, arms, brackets, poles); and any</p>	Lump Sum

other equipment not included in items above for the successful Lane functionality and operations.

The Lump Sum tendered shall further include for all 3rd party software and licences, contractors internal and milestone testing etc.

Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.

Item No.	Description	Unit
B-3003	Provision of Toll System Software and Hardware: Dedicated ETC Lanes	Lump Sum
	The Lump Sum tendered for under this item, is for the provision of Dedicated ETC Lanes for single direction lanes in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	The Lump Sum tendered shall include full compensation for the delivery of the complete Dedicated ETC software supply, installation, commissioning and/or upgrade including any 3 rd party software, database software, etc and the submission of applicable licences.	
	The Lump Sum tendered the above item shall include for full compensation for the complete equipment/hardware supply, installation, interfacing to the MIS and AVC, commissioning and/or upgrade, including but not limited to the Lane Controller (computer, screen); Toll Lane Keyboard; ETC Tag reader; VGS Camera; SQL Camera; Traffic Light; Over head lane sign (OHLS); Entry Boom (manual); Exit Boom (automatic); User Fare Display (UFD); Loadshift gauge; Tariff board; Intercom system (Unit per lane); LAN and Network connections complete; All fixing mechanisms (e.g. clamps, arms, brackets, poles); and any other equipment not included in items above for the successful Lane functionality and operations.	
	The Lump Sum tendered shall further include for all 3 rd party software and licences, contractors internal and milestone testing etc.	
	Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.	

Item No.	Description	Unit
B-3004	Provision of Toll System Software and Hardware: Upgrading of a Mixed ETC -Manual Lane to a Dedicated ETC Lane (If triggered)	No.
	The tendered rate for under this item, is for the upgrading of a Mixed Manual/ETC Lane to a Dedicated ETC Lane in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	The tendered rate tendered under the above item shall include for full compensation for all equipment/hardware supply, installation, testing, commissioning and/or upgrade in order to change a Mixed ETC-Manual Lane to a Dedicated ETC Lane.	
	This tendered rate shall further include for all 3 rd party software and licences, contractors internal and milestone testing etc.	

The unit of measurement shall be the number of Toll Lanes that are upgraded to a Dedicated ETC Lane.

This item is a “if-triggered” item in accordance with Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project-Specific, and payment shall be made in accordance and subject to successful testing and approval by the Employer Representative.

Item No.	Description	Unit
B-3005	Provision of Toll System Software and Hardware: Implementation of reversable toll lanes. (If triggered)	No.
	The tendered rate for under this item, is to implement revisable toll lanes in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).	
	This rate tendered under the above items shall include for full compensation for any additional equipment/hardware supply, installation, testing, commissioning and/or upgrade to implement a revisable Toll Lane to include any additional requirement such as AVC interlocking.	
	This rate as tendered shall further include for all 3rd party software and licences, contractors internal and milestone testing etc.	
	The unit of measurement shall be the number of reversible lanes that are implemented.	
	Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.	

Item No.	Description	Unit
B-3006	Provision of Toll System Software and Hardware: Implementation of Queue Length Cameras.	Lump Sum
	The Lump Sum tendered for under this item, to implement queue length cameras shall be in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems : (Volume 2 Book 4a).	
	The Lump Sum shall include full compensation for the delivery of the complete Queue length camera supply, installation, commissioning and/or upgrade including any 3 rd party software, database software, etc and the submission of applicable licences.	
	This Lump Sum as tendered shall further include for all 3rd party software and licences, contractors internal and milestone testing etc.	
	Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.	

Item No.	Description	Unit
B-3007	Provision of Toll System Software and Hardware: Implementation of VGS	Lump Sum
	The Lump Sum tendered for under this item, to implement VGS cameras shall be in terms of Project Document (Volume 3) Book 1 Part C3: Scope of Works: Project Specific.	

The Lump Sum tendered shall include full compensation for the delivery of the complete VGS camera supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences. The rate shall provide for an initial “stand-alone” VGS implementation for the period before the Lanes are upgraded as well as for the implementation of a fully integrated solution when the Toll Lanes are upgraded.

This Lump Sum tendered shall further include for all 3rd party software and licences, contractors internal and milestone testing etc.

Payment shall be made in accordance and subject to successful completion of the milestone tests during the Design-Build Period.

Item No.	Description	Unit
B-3008	Provision of Documentation	Lump Sum

The Lump Sum tendered for under this item, is for the provision of documentation in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).

The Lump Sum tendered under the above item shall include for full compensation to supply the various documents, which is to be accepted by the Employer, which includes for the updating of the documents as and when required. The approval and delivery of the documentation, except for the As-Build drawings, shall be a pre-requisite for the start of the Operations Service Period.

The As-Build drawings are required within 60 days after the relevant Commission Certificate has been issued.

Payment shall be made in accordance and subject to successful delivery of documentation by the Contractor and followed by approval by the Employers Representative.

B-4000 ELECTRICAL AND MECHANICAL

Item No.	Description	Unit
B-4001	Uninterruptible Power Supply (UPS) units.	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision and/or upgrade of all the Uninterruptible Power Supply (UPS) units in terms of Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Equipment Volume 2 Book 3.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the UPS including but not limited to, hardware, batteries, cabling, installation, Contractor's internal and milestone testing and earthing.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	

Item No.	Description	Unit
B-4002	Electrical: Supply and installation	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision and/or upgrade of all the electrical installations in the Plaza buildings, in the toll lanes and Toll Booths in terms of Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Equipment Volume 2 Book 3.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the electrical systems including but not limited to, the complete units, cabling, installation, and Contractor's internal and final Employer Requirement testing.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	

Item No.	Description	Unit
B-4003	Air-conditioning and ventilation	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of Air-conditioning and ventilation units in terms of Standard Specifications for Operations and Maintenance of CTROM Projects: Electrical and Mechanical Equipment Volume 2 Book 3.</p> <p>The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of the Air-conditioning systems including but not limited to, the complete units, cabling, installation, and Contractor's internal and final ER testing.</p>	

The unit of measurement shall be the number of air-conditioning units at the Control Building and in toll booths.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

B-5000 MISCELLANEOUS: OTHER PAYMENT ITEMS

Item No.	Description	Unit
B-5001	Access control system complete	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of Access control system complete per Control Centre in terms of Standard Specifications for Operations and Maintenance of CTROM Projects: General : Volume 2 Book 2a.</p> <p>The Lump Sum tendered shall include for full compensation for the supply, installation, testing and commissioning of the access control system, as specified in Standard Specifications for Operations and Maintenance of CTROM Projects: General : Volume 2 Book 2a., including but not limited, all software and licences, hardware, cabling, installation, Contractor's internal testing and testing by the Employer, earthing etc.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	
Item No.	Description	Unit
B-5002	Intercom system complete per Control Centre	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of Intercom system complete per Control Centre in terms of the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a).</p> <p>The Lump Sum tendered shall include for full compensation for the supply, installation, testing and commissioning of the intercom system for all the Toll Lanes, security entrance gates to the building areas and buildings, as specified in the Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a), including but not limited, all software and licences, hardware, cabling, installation, Contractor's internal testing and testing by the Employer, earthing etc.</p> <p>Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.</p>	
Item No.	Description	Unit
B-5003	Call Centre System	Lump Sum
	<p>The Lump Sum tendered for under this item, is for the provision of one call centre system on the Toll Road in terms of Standard Specifications for Operations and Maintenance of CTROM Projects: Toll Systems (Volume 2 Book 4a) and the Standard Specifications for Operations and Maintenance of CTROM Projects: General (Volume 2 Book 2a).</p> <p>The Lump Sum tendered shall include full compensation for the delivery of the complete software supply, installation, commissioning and/or upgrade including any 3rd party software, database software, etc and the submission of applicable licences.</p>	

The Lump Sum tendered under the above items shall include for full compensation for the supply, installation, testing and commissioning of any equipment, including but not limited to, hardware, cabling, installation, Contractor's internal and milestone testing and earthing. The call centre system will be located at one Control Centre on the Toll Road for the handling calls from the Road Users and from the TCH.

Payment shall be made in accordance and subject to successful delivery, implementation and commissioning by the Contractor and followed by successful testing and approval by the Employers Representative.

B-6000 PROVISIONAL SUMS

Item No.	Description	Unit
B-6001	Provision for the installation and upgrade of Employers Assets	
	a) Provision for the installation and upgrade of Employers Assets	Prov Sum
	b) Provision for Overhead charges and profit in respect of aforementioned item	Percentage (%)
	<p>The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional installation and upgrade of any Employer's Assets in any Plaza building, in the Toll Lane area and/or Toll Booth</p> <p>The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects" to pay the installation and upgrade of Employers Assets.</p> <p>The Provisional Sum provided under this item a) to cover the cost of the possible additional installation and upgrade of any Employer's Assets shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer's Representative.</p> <p>The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor's procurement and management of quotations and the management of execution of additional installation and upgrade of any Employer's Assets, when requested to do so by the Employer.</p>	

Item No.	Description	Unit
B-6002	Provision for the installation and upgrade of Electrical and Mechanical Assets	
	a) Provision for the installation and upgrade of Electrical and Mechanical Assets	Prov Sum
	b) Provision for Overhead charges and profit in respect of aforementioned item	Percentage (%)
	<p>The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional installation and upgrade of Electrical and Mechanical Assets in any Plaza building, in the Toll Lane area and/or Toll Booth</p> <p>The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects" to pay the installation and upgrade of Electrical and Mechanical Assets.</p> <p>The Provisional Sum provided under this item a) to cover the cost of the possible additional installation and upgrade of Electrical and Mechanical Assets shall be expended in</p>	

accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer’s Representative.

The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor’s procurement and management of quotations and the management of execution of additional installation and upgrade of Electrical and Mechanical Assets, when requested to do so by the Employer.

Item No.	Description	Unit
B-6003	Provision for the installation and upgrade of Toll System Assets	
	a) Provision for the installation and upgrade of Toll System Assets	Prov Sum
	b) Provision for Overhead charges and profit in respect of aforementioned item	Percentage (%)

The Provisional Sum provided under this item will be used by the Contractor, if requested to do so by the Employer, for possible additional installation and upgrade of Toll System Assets in any Plaza building, in the Toll Lane area and/or Toll Booth

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects” to pay the installation and upgrade of Toll System Assets.

The Provisional Sum provided under this item a) to cover the cost of the possible additional installation and upgrade of Toll System Assets shall be expended in accordance with the provisions of Clause 13.5 : Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall provide quotations for the work to be performed for approval by the Employer’s Representative.

The percentage tendered under this item b) for overhead charges and profit shall be applied to the actual expenditure in terms of this item a) and shall cover the Contractor’s procurement and management of quotations and the management of execution of additional installation and upgrade of Toll System Assets, when requested to do so by the Employer.

Item No.	Description	Unit
B-6004	Customer Service Kiosks at Locations Remote from Toll Plazas - Planning, Design, Supply and Installation	
	a) Allowance for Customer Service Kiosk Planning and Design	Prov Sum
	b) Overhead charges and profit iro Planning and Design	Percentage (%)
	c) Procurement of Kiosk Supply and Installation	Prov Sum

- d) Overhead charges and profit iro Supply and Installation Percentage (%)

The Provisional Sum provided under sub-item B-6004 a) will cover the cost of the planning and design of permanent and temporary Customer Service Kiosks to be deployed at selected high volume shopping centres, garages and other locations as detailed in Clause 3.4 of Volume 2 Book 2a Standard Specifications for Operations and Maintenance of CTROM Projects: General.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects” to pay the planning and design fees of an Employer-nominated architect. Payment in terms of the Provisional Sum will only be made upon approval by the Employer of the design of the permanent and/or temporary Customer Service Kiosks.

The percentage tendered under sub-item B-6004 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6004 a).

The Provisional Sum provided under sub-item B-6004 c) to cover the cost of permanent and temporary Kiosks and Kiosk supply and installation ordered by the Employer’s Representative in terms of the approved deployment scheme and design shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall, when required by the Employer’s Representative, provide quotations for the work to be performed.

The Provisional Sum provided under sub-item B-6004 c) will also be used to cover the cost of the possible movement of temporary Kiosks from one location to another and the re-installation of such temporary Kiosks at the new location.

The percentage tendered under sub-item B-6004 d) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6004 c).

Item No.	Description	Unit
B-6005	Customer Service Kiosks at Toll Plazas – Planning, Design, Supply and Installation of Shop-fittings	
	a) Allowance for Toll Plaza Customer Service Kiosks - Planning and Design	Prov Sum
	b) Overhead charges and profit iro Planning and Design	Percentage (%)
	c) Supply and Installation of Customer Service Kiosks Shop-fittings	Prov Sum
	d) Overhead charges and profit iro Supply and Installation	Percentage (%)

The Provisional Sum provided under sub-item B-6005 a) will cover the cost of the planning and design of the shop-fittings of the Customer Service Kiosks at Toll Plazas which shall be a continuation/duplication of the design theme used in the Customer Service Kiosks at locations remote from the toll plazas.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects” to pay the planning and design fees of the Employer-nominated architect.

Payment in terms of the Provisional Sum will only be made upon approval by the Employer of the shop-fitting design of the Customer Service Kiosks at Toll Plazas.

The percentage tendered under sub-item B-6005 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6005 a).

The Provisional Sum provided under sub-item B-6005 c) to cover the cost of the supply and installation of Customer Service Kiosk shop-fittings ordered by the Employer’s Representative in terms of the approved design shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, which requires that the Contractor shall, when required by the Employer’s Representative, provide quotations for the work to be performed.

The percentage tendered under sub-item B-6005 d) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6004 c).

Item No.	Description	Unit
B-6006	Information Points and Desks at Locations Remote from Toll Plazas	
	a) Allowance for Information Points and Desks and associated Furniture – Planning and Design	Prov Sum
	b) Overhead charges and profit in respect of Planning and Design	Percentage (%)
	c) Supply and Installation of Information Points and Desks and the associated Furniture	Prov Sum
	d) Overhead charges and profit in respect of Supply and Installation	Percentage (%)

The Provisional Sum provided under sub-item B-6006 a) will cover the cost of the planning and design of the information/help desks and the associated shop-fitting. The design shall incorporate a continuation/duplication of the design theme used in the Customer Service Kiosks.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the “FIDIC Conditions of Contract for Design, Build and Operate Projects”, to pay the planning and design fees of the Employer-nominated architect.

Payment in terms of the Provisional Sum will only be made upon approval by the Employer of the design of the information/help desks.

The percentage tendered under sub-item B-6006 b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6006 a).

The Provisional Sum provided under sub-item B-6006 c) to cover the cost of the supply and installation of the information/help desks and associated shop-fittings, ordered by the

Employer's Representative in terms of the approved design, shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of the "FIDIC Conditions of Contract for Design, Build and Operate Projects" which requires that the Contractor shall, when required by the Employer's Representative, provide quotations for the work to be performed.

The percentage tendered under sub-item B-6006 d) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item B-6006 c).

Item No.	Description	Unit
B-6007	Fire detection and suppression systems complete per Control Centre	
	a) Fire detection and suppression systems	Prov Sum
	b) Overhead charges and profit in respect of Planning and Design	Percentage (%)

The Provisional Sum provided under sub-item a) will cover the cost of the design, installation, testing and implementation of the fire detection and suppression systems complete per Control Centre.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", to pay the design, installation testing and implementation of the fire detection and suppression systems.

The percentage tendered under sub-item b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item a) and shall cover the Contractor's procurement and management of quotations and the management of execution of the design, installation testing and implementation of the fire detection and suppression systems.

Payment in terms of the Provisional Sum will only be made upon approval by the Employer of the implementation of the fire detection and suppression systems.

Item No.	Description	Unit
B-6008	Provision of PABX telephone system per Control Centre.	
	a) PABX telephone system	Prov Sum
	b) Overhead charges and profit in respect of afore-mentioned item	Percentage (%)

The Provisional Sum provided under sub-item a) will cover the cost of the supply of a PABX telephone system complete per Control Centre.

The Provisional Sum shall be expended in accordance with the provisions of Clause 13.5: Provisional Sums of Volume 1 Book 1, the "FIDIC Conditions of Contract for Design, Build and Operate Projects", to pay the supply of a PABX telephone system.

The percentage tendered under sub-item b) for overhead charges and profit shall be applied to the actual expenditure in terms of sub-item a) and shall cover the Contractor's

procurement and management of obtaining quotations and the management of execution of the supply of the PABX system per control centre.

Payment in terms of the Provisional Sum will only be made upon approval by the Employer of the implementation of the fire detection and suppression systems.