



**AIRPORTS COMPANY OF SOUTH AFRICA**

**CONTRACT NO:** \_\_\_\_\_

**RETURNABLE**

**NOTE:**

- The Form of Offer and Acceptance (C1.1) is on **pages 3-6** of this document.



**THE CLIENT:**

Airports Company South Africa SOC Ltd  
King Shaka International Airport  
La Mercy, KwaZulu-Natal  
South Africa  
440

Tel: +27 (0)32 436 6000

Fax: +27 (0)32 436 6672



**AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED**

**PROJECT NUMBER: 3652**

**TITLE OF PROJECT: APPOINTMENT OF A CONTRACTOR FOR THE  
DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS  
ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**NEC 3: ENGINEERING AND CONSTRUCTION CONTRACT (ECC)**

**Between** AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED  
Applicable at King Shaka International Airport  
(Registration Number: 1993/004149/30)

and \_\_\_\_\_  
(Registration Number: \_\_\_\_\_)

for **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

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<b>Contents:</b>		<b>No of pages</b>
Part C1	Agreements & Contract Data	[26]
Part C2	Pricing Data	[21]
Part C3	Scope of Works	[28]
Part C4	Site Information	[04]

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**Part C1: Agreements and Contract Data**

**C1.1: Form of Offer and Acceptance**

**Offer**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of the DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the **Contractor** under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

**THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:**

(in words)..... Rands;

(in figures) **R**.....

**THE OFFERED PRICES ARE AS STATED IN THE PRICING SCHEDULE**

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the **Contractor** in the conditions of contract identified in the Contract Data.

Signature(s) \_\_\_\_\_

Name(s) \_\_\_\_\_

Capacity \_\_\_\_\_

**For the Bidder:** \_\_\_\_\_

\_\_\_\_\_  
*(Insert name and address of organisation)*

Name & signature of witness \_\_\_\_\_ Date \_\_\_\_\_



**Acceptance**

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the **Contractor** the amount due in accordance with the conditions of contract identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work: Works Information
- Part C4 Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the tenderer (now **Contractor**) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s) \_\_\_\_\_

Capacity \_\_\_\_\_

**the Employer**

\_\_\_\_\_  
*(Insert name and address of organisation)*



Name  
& signature  
of witness

Date

\_\_\_\_\_

**Schedule of Deviations**

1 Subject .....

Details .....

.....  
.....  
.....

2 Subject .....

Details .....

.....  
.....  
.....

3 Subject .....

Details .....

.....  
.....  
.....



By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

	<u>For the Employer</u>	<u>For the Bidder</u>
Signature (s)	_____	_____
Name (s)	_____	_____
Capacity	_____	_____
<b>Name and Address</b>	<b>Airports Company South Africa SOC Limited</b>	
Name & Signature of witness	<i>(Insert name and address of organisation)</i>	<i>(Insert name and address of organisation)</i>
Date	_____	_____



**Part C1.2a Contract Data**

**Part one – Data provided by the Employer**

The Conditions of contract are selected from the NEC3 Engineering and Construction Contract, April 2013.

Each item of data given below is cross-referenced to the NEC3 Engineering Construction Contract which requires it.

Clause	Statement	Data
<b>1</b>	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for Main Option	
	Main Option	<b>A: Priced contract with activity schedule</b>
	Dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	Secondary Options (incorporating amendments)	<b>X2: Changes in the law</b> <b>X7: Delay damages</b> <b>X13: Performance Bond</b> <b>X16: Retention</b> <b>X15: Limitation of contractor’s Liability for his design to reasonable skill and care</b> <b>X18: Limitation of liability</b>
		<b>Z: Additional conditions of contract</b> of the NEC3 Engineering and Construction Contract, April 2013
10.1	The <i>Employer</i> is (Name)	Airports Company South Africa SOC Limited,
	Address	Airports Company South Africa SOC Limited  King Shaka International Airport La Mercy, KwaZulu-Natal South Africa 440
	Telephone	(032) 436 6000
	Fax	(032) 436 6672
10.1	The <i>Project Manager</i> is	TBC on appointment of Joint Monitoring Consulting Team



Contact Person:  
Address:

Telephone  
E-mail address

10.1	The <i>Supervisor</i> is	TBC on appointment of Contractor
	Address	
	Telephone Fax Email	
11.2	The <i>works</i> are	DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT
11.2	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> <li>• Availability of As Built information</li> <li>• Access to Site</li> <li>• Site Constraints and Constructability</li> <li>• Municipal Approval</li> <li>• SACAA approval</li> </ul>
11.2	The <i>Works Information</i> is in	Part C3 'Scope of Works' section of this contract
11.2	The <i>Site Information</i> is in	Part C4 'Works Information' section of this contract
11.2	The <i>boundary of the site</i> is	As indicated on site layout
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period of reply</i> is	Seven (7) days



<b>3</b>	<b>Time</b>	
31.2	The <i>starting date</i> is	On Issue of Purchase Order
11.2	The <i>completion date</i> is	20 months from contractor appointment date (Purchase Order issue date)
30.1	The <i>access date</i> is	On Issue of Purchase Order
31.1	The <i>Contractor</i> submits a first (preliminary) programme with the tender by the tender closing date	(14 days upon appointment)
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	Four (4) weeks
35.1	The <i>Employer</i> is not willing to take over the works before the <i>completion date</i>	The <i>Employer</i> and Others will have access to the <i>works</i> during construction or prior to completion. Such access by the <i>Employer</i> and Others shall not relieve the <i>Contractor</i> from liability for the completion of the <i>works</i> in accordance with the Works Information and in terms of this contract.
<b>4</b>	<b>Testing and Defects</b>	
42.2	The <i>defects date</i> is	Twelve (12) months after Completion of the whole of the <i>works</i>
43.2	The <i>defects correction period</i> is	Two (2) weeks
<b>5</b>	<b>Payment</b>	
50.1	The <i>assessment interval</i> is	Four (4) weeks, on the 25th day of each successive month
50.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payment is made is	Four (4) weeks
51.4	The <i>interest rate</i> is	The prime lending rate of the Nedbank Bank. as determined from time to time
<b>6</b>	<b>Compensation events</b>	
60.1	The <i>weather measurements</i> to be recorded for each calendar month are	the cumulative rainfall (mm) the number of days with rainfall more than 10 mm the number of days with minimum air temperature less than 0 degrees Celsius
60.1	The place where weather is to be recorded (on the Site) is	At the Construction Site Office and the records to be kept on site in a file clearly marked for this purpose



60.1	Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are	Month	Days	Month	Days
		January	1	July	4
		February	1	August	3
		March	2	September	2
		April	2	October	2
		May	3	November	2
		June	3	December	1
<b>7</b>	<b>Title</b>	No data required for this section of the <i>conditions of contract</i>			
<b>8</b>	<b>Risks and Insurance</b>				
84.1	The <i>Employer</i> provides these insurances	Refer to the Insurance Clauses which is attached at the end of the Contract Data			
84.2	The <i>Contractor</i> provides the insurance stated in	The Insurance Clauses which is attached at the end of the Contract Data. The insurances are in the joint names of the Parties and provide cover for events which are at the Contractor's risk from the starting date until the Defects Certificate or a termination certificate has been issued.			
	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the Contractor arising out of and in the course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993			
<b>9</b>	<b>Termination</b>	No data required for this section of the <i>conditions of contract</i>			
<b>10</b>	<b>Data for Main Options</b>				
<b>A</b>	Priced contract with activity schedule	Tenderer to provide activity schedule with pricing information, based on works description			
<b>11</b>	<b>Data for Option W1</b>				
W1.1	The <i>Adjudicator</i> is	The person appointed jointly by the parties from the list of adjudicators contained below			
W1.2	The <i>Adjudicator nominating body</i> is	The current Chairman of KwaZulu-Natal Advocate's Bar Council			
W1.4	The <i>tribunal</i> is	Arbitration			
W1.4	If the <i>tribunal</i> is arbitration, the arbitration procedure is	The <i>arbitration procedure</i> is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)			

Commented [OS1]: IS this site specific

Commented [TT2R1]: Refer to design report

Commented [TT3]: Onkgopotse to refer matter to compliance

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W1.4	The place where arbitration is to be held is	Durban, KwaZulu-Natal South Africa.
W1.4	The person or organisation who will choose an arbitrator	The Arbitrator is the person selected by the Parties as and when a dispute arises in terms of the relevant Z Clause, from the Panel of Arbitrators provided under the relevant Z clause if the arbitration procedure does not state who selects an arbitrator. The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council.
<b>12</b>	<b>Data for Secondary Option Clauses</b>	
<b>X7</b>	<b>Delay Damages</b>	
	Delay damages of the <i>works</i> are	Amount per day is 0.05%, to the maximum of 10% of the Contract value
<b>X13</b>	<b>Performance bond</b>	
X13.1	The amount of the performance bond is	10% of the contract value. Pro-forma draft of a performance bond to be used is attached to this contract.
<b>X16</b>	<b>Retention</b>	
X16.1	The <i>retention percentage</i> is	5% of the Contract value.
<b>X18</b>	<b>Limitation of Liability</b>	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	The total of the Prices
X18.3	The <i>Contractor's</i> total liability to the <i>Employer</i> for defects due to his design which are not listed on the Defects Certificate is limited to	The total of the Prices



X18.4 The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to

The *Contractor's* total direct liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the total of the Prices and applies in contract, tort or delict and otherwise to the extent allowed under the law of the contract.

The excluded matters are amounts payable by the *Contractor* as stated in this contract for

- Loss of or damage to the *Employer's* property,
- Delay damages,
- Defects liability,
- Insurance liability to the extent of the *Contractor's* risks
- loss of or damage to property (other than the *works*, Plant and Materials),
- death of or injury to a person;
- damage to third party property; and
- infringement of an intellectual property right

**Z The Additional conditions of Z1 – Z20 contract are**

**Amendments to the Core Clauses**

**Z1 Interpretation of the law**

**Z1.1 Add to core clause 12.3:**  
Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Project Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

**Z2 Providing the Works:**

**Z2.1 Delete core clause 20.1 and replace with the following:**  
The *Contractor* provides the works in accordance with the Works Information and warrants that the results of the Works, when complete, shall be fit for their intended purpose

**Z3 Other responsibilities:**

**Add the following at the end of core clause 27:**

**Z3.1** The *Contractor* shall have satisfied himself, prior to the Contract Date, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the Contract Date

**Z3.2** The *Contractor* shall be responsible for the correct setting out of the *Works* in accordance with the original points, lines and levels stated in the Works Information or notified by the *Project Manager*, *Supervisor* or the *Employer*. Any errors in the positioning of the *Works* shall be rectified by the *Contractor* at the *Contractor's* own costs.

**Z4 Extending the defects date:**

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**Add the following as a new core clause 46:**

- Z4.1** If the *Employer* cannot use the *works* due to a Defect, which arises after Completion and before the *defects date*, the *defects date* is delayed by a period equal to that during which the *Employer*, due to a Defect, is unable to use the *works*
- Z4.2** If part of the *works* is replaced due to a Defect arising after Completion and before the *defects date*, the *defects date* for the part of the *works* which is replaced is delayed by a period equal to that between Completion and the date by when the part has been replaced
- Z4.3** The *Project Manager* notifies the *Contractor* of the change to a *defect date* when the delay occurs. The period between Completion and an extended *defects date* does not exceed twice the period between Completion and the *defects date* stated in the Contract Data
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**Z5 Termination**

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- Z5.1** Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words “assets or”: “business rescue proceedings are initiated or steps are taken to initiate business rescue proceedings”.

**Amendment to the Secondary Option Clauses**

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**Z6 Performance Bond**

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- Z6.1** Amend the first sentence of clause X13.1 to read as follows:  
The *Contractor* gives the *Employer* an unconditional, on-demand performance bond, provided by a bank which the *Project Manager* and the *Employer* have accepted, for the amount stated in the Contract Data and in the form set out in Annexure C.ii of this Contract Data.
- Z6.2** Add the following new clause as Option X13.2:  
The *Contractor* ensures that the performance bond is valid and enforceable until the end of the *contract period*. If the terms of the performance bond specify its expiry date and the end of the *contract period* does not coincide with such expiry date, four weeks prior to the said expiry date, the *Contractor* extends the validity of the performance bond until the end of the *contract period*. If the *Contractor* fails to so extend the validity of the performance bond, the *Employer* may claim the full amount of the performance bond and retain the proceeds as cash security
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**Z7 Limitation of liability:**

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**Insert the following new clause as Option X18.6:**

- Z7.1** The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00
- Z7.2** Notwithstanding any other clause in this contract, any proceeds received from any insurances or any proceeds which would have been received from any insurances but for the conduct of the *Contractor* shall be excluded from the calculation of the limitations of liability listed in the contract
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**Additional Z Clauses**

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**Z8 Cession, delegation and assignment**

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**Z8.1** The *Contractor* shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*, which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or not) of the *Contractor*

**Z8.2** The *Employer* may cede and delegate its rights and obligations under this contract to any person or entity

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**Z9 Joint and several liability**

**Z9.1** If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons, these persons are deemed to be jointly and severally liable to the *Employer* for the performance of the Contract.

**Z9.2** The *Contractor* shall, within 1 week of the Contract Date, notify the *Project Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on their behalf.

**Z9.3** The *Contractor* does not materially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without prior written consent of the *Employer*.

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**Z10 Ethics**

**Z10.1** The *Contractor* undertakes:

**Z10.1.1** not to give any offer, payment, consideration, or benefit of any kind, which constitutes or could be construed as an illegal or corrupt practice, either directly or indirectly, as an inducement or reward for the award or in execution of this contract;

**Z10.1.2** to comply with all laws, regulations or policies relating to the prevention and combating of bribery, corruption and money laundering to which it or the *Employer* is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.

**Z10.3** The *Contractor's* breach of this clause constitutes grounds for terminating the *Contractor's* obligation to Provide the Works or taking any other action as appropriate against the *Contractor* (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.

**Z10.4** If the *Contractor* is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices, including but not limited to the making of offers (directly or indirectly), payments, gifts, gratuity, commission or benefits of any kind, which are in any way whatsoever in connection with the contract with the *Employer*, the *Employer* shall be entitled to terminate the contract in accordance with the procedures stated in core clause 92.2. the amount due on termination is A1.

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**Z11 Confidentiality**

**Z11.1** All information obtained in terms of this contract or arising from the implementation of this contract shall be treated as confidential by the *Contractor* and shall not be used or divulged or published to any person not being a party to this contract, without the prior written consent of the *Project Manager* or the *Employer*, which consent shall not be unreasonably withheld.



- Z11.2** If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the *Project Manager*.
- Z11.3** This undertaking shall not apply to –
  - Z11.3.1** Information disclosed to the employees of the *Contractor* for the purposes of the implementation of this agreement. The *Contractor* undertakes to procure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;
  - Z11.3.2** Information which the *Contractor* is required by law to disclose, provided that the *Contractor* notifies the *Employer* prior to disclosure so as to enable the *Employer* to take the appropriate action to protect such information. The *Contractor* may disclose such information only to the extent required by law and shall use reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed;
  - Z11.3.3** Information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time);
- Z11.4** The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*
- Z11.5** The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

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**Z12 Employer's Step-in rights**

- Z12.1** If the *Contractor* defaults by failing to comply with his obligations and fails to remedy such default within 2 weeks of the notification of the default by the *Project Manager*, the *Employer*, without prejudice to his other rights, powers and remedies under the contract, may remedy the default either himself or procure a third party (including any subcontractor or supplier of the *Contractor*) to do so on his behalf. The reasonable costs of such remedial works shall be borne by the *Contractor*
- Z12.2** The *Contractor* co-operates with the *Employer* and facilitates and permits the use of all required information, materials and other matter (including but not limited to documents and all other drawings, CAD materials, data, software, models, plans, designs, programs, diagrams, evaluations, materials, specifications, schedules, reports, calculations, manuals or other documents or recorded information (electronic or otherwise) which have been or are at any time prepared by or on behalf of the *Contractor* under the contract or otherwise for and/or in connection with the *works*) and generally does all things required by the *Project Manager* to achieve this end.

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**Z13 Liens and Encumbrances**

- Z13.1** The *Contractor* keeps the Equipment used to Provide the Services free of all liens and other encumbrances at all times. The *Contractor*, vis-a-vis the *Employer*, waives all and any liens which he may from time to time have, or become entitled to over such Equipment and any part thereof and procures that his Subcontractors similarly, vis-a-vis the *Employer*, waive all liens they may have or become entitled to over such Equipment from time to time



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**Z14 Intellectual Property**

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- Z14.1** Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
- Z14.2** IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *works*.
- Z14.3** The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *works* for the purposes of constructing, repairing, demolishing, operating and maintaining the works
- Z14.4** The written approval of the *Contractor* is to be obtained before the *Contractor's* IP made available to any third party which approval will not be unreasonably withheld or delayed. Prior to making any *Contractor's* IP available to any third party the *Employer* shall obtain a written confidentiality undertaking from any such third party on terms no less onerous than the terms the *Employer* would use to protect its IP
- Z14.5** The *Contractor* shall indemnify and hold the *Employer* harmless against and from any claim alleging an infringement of IP rights ("**the claim**"), which arises out of or in relation to:
- Z14.5.1** the *Contractor's* design, manufacture, construction or execution of the Works
- Z14.5.2** the use of the *Contractor's* Equipment, or
- Z14.5.3** the proper use of the Works.
- Z14.6** The *Employer* shall, at the request and cost of the *Contractor*, assist in contesting the claim and the *Contractor* may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it.

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**Z15 Dispute resolution:**

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**Z15.1 Appointment of the Adjudicator**

An *Adjudicator* is appointed when a dispute arises, from the Panel of Adjudicators below. The referring party nominates an Adjudicator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Adjudicator*, the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Adjudicator* listed in the Panel of Adjudicators below

The Parties appoint the *Adjudicator* under the NEC3 Adjudicator's Contract, April 2013

Name	Location	Contact details (phone & e mail)
Adv. Ghandi Badela	Gauteng	+27 11 282 3700 <a href="mailto:ghandi@badela.co.za">ghandi@badela.co.za</a>
Mr. Errol Tate Pr. Eng.	Durban	+27 11 262 4001 <a href="mailto:Errol.tate@mweb.co.za">Errol.tate@mweb.co.za</a>
Adv. Saleem Ebrahim	Gauteng	+27 11 535-1800 <a href="mailto:salimebrahim@mweb.co.za">salimebrahim@mweb.co.za</a>
Mr. Sebe Msutwana Pr. Eng.	Gauteng	+27 11 442 8555 <a href="mailto:sebe@civilprojects.co.za">sebe@civilprojects.co.za</a>
Mr. Sam Amod	Gauteng	<a href="mailto:sam@samamod.com">sam@samamod.com</a>
Adv. Sias Ryneke SC	Gauteng	083 653 2281 <a href="mailto:ryneke@duma.nokwe.co.za">ryneke@duma.nokwe.co.za</a>
Mr. Emeka Ogbugo (Quantity Surveyor)	Pretoria	+27 12 349 2027 <a href="mailto:emeka@gosiame.co.za">emeka@gosiame.co.za</a>

**Z15.2 Appointment of the Arbitrator**

An *Arbitrator* is appointed when a dispute arises from the Panel of Arbitrators below. The referring party nominates an Arbitrator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Arbitrator*, the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Arbitrator* listed in the Panel of *Arbitrators* below

Panel of Arbitrators

Name	Location	Contact details (phone & e mail)
Adv. Ghandi Badela	Gauteng	+27 11 282 3700 <a href="mailto:ghandi@badela.co.za">ghandi@badela.co.za</a>
Mr. Errol Tate Pr. Eng.	Durban	+27 11 262 4001 <a href="mailto:Errol.tate@mweb.co.za">Errol.tate@mweb.co.za</a>
Adv. Saleem Ebrahim	Gauteng	+27 11 535-1800 <a href="mailto:salimebrahim@mweb.co.za">salimebrahim@mweb.co.za</a>
Mr. Sebe Msutwana Pr. Eng.	Gauteng	+27 11 442 8555 <a href="mailto:sebe@civilprojects.co.za">sebe@civilprojects.co.za</a>
Mr. Sam Amod	Gauteng	<a href="mailto:sam@samamod.com">sam@samamod.com</a>
Adv. Sias Ryneke SC	Gauteng	083 653 2281 <a href="mailto:reyneke@duma.nokwe.co.za">reyneke@duma.nokwe.co.za</a>
Mr. Emeka Ogburo (Quantity Surveyor)	Pretoria	+27 12 349 2027 <a href="mailto:emeka@gosiame.co.za">emeka@gosiame.co.za</a>

**Z16 Notification of a compensation event**

**Z16.1** Delete "eight weeks" in clause 61.3 and replace with "four weeks". Delete the words "unless the event arises from the Project Manager or the Supervisor giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption."

**Z17 BBBEE Certificate**

**Z17.1** The *Contractor* shall be expected to annually present a compliant BEE Certificate. Failure to do adhere to these requirements shall be considered a material breach of the conditions of this Contract, the sanction for which may be a cancellation of this Contract.

**Z18 Communication**

**Z18.1 Add a new Core Clause** 14.5 and 14.6 to read as follows:  
The *Project Manager* requires the written consent of the Employer if an action will result in a change to the design, scope, and Works information that is 5% or more

**Z18.2** The *Project Manager* requires the written consent of the Employer if an action will result in the Completion Date being extended by more than 30 days.

**Z19 Delegation**



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As stipulated by Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 as amended the *Contractor* agrees to the following:

- Z19.1** As part of this contract the *Contractor* acknowledge that it (mandatory) is an employer in its own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended and agree to ensure that all work being performed, or Equipment, Plant and Materials being used, are in accordance with the provisions of the said Act, and in particular with regard to the Construction Regulations
-



**PART C1.2b CONTRACT DATA**

**PART TWO – DATA PROVIDED BY THE CONTRACTOR**

Clause	Statement	Data
10.1	The Contractor is (Name): Address:  Telephone No. Fax No.	
11.2	The <i>working areas</i> are	King Shaka International Airport site Area. See C4 'Site Information'
24.1	The <i>Contractor's Key people</i> are:	<b>CV's to be appended to Tender Schedule</b>
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	

**Commented [TT5]:** Refer to - appointment requirement through the contract period



Name:

Job:

Responsibility:

Qualifications:

Experience:

11.2	The <i>completion date</i> is	28 months from contractor appointment date (Purchase Order issue date)
11.2	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> <li>• Existing Services</li> <li>• Access to Site</li> <li>• Delay in supply of material and/or equipment</li> <li>• Program management</li> <li>• Cash flow management</li> </ul>
11.2	The <i>Works Information</i> is in	Part C3 'Scope of Works' section of this contract
31.1	The programme identified in the	Programme listed in Schedule 6 of Part T2.2



**Part C1: Agreements and Contract Data**

**C1.3: Form of Guarantee**

**PRO FORMA FOR PERFORMANCE BOND**

**PERFORMANCE BOND**

**[TO BE REPLICATED ON BANK'S LETTERHEAD]**

Brief description of contract.....

Name and address of Beneficiary.....

..... (whom the contract defines as the Contractor).

We, the undersigned ..... and..... in our capacities as Guarantor's..... of ..... (**Registration Number: ....**) (hereinafter called "the Bank") have been informed that ..... hereinafter called the 'Principal') is your Contractor under such contract, which requires him to obtain an irrevocable, unconditional performance security.

At the request of the Principal, we .....(name of bank) hereby irrevocably undertake to pay you, the Employer, any sum or sums not exceeding in total the amount of .....(the "Guaranteed Amount") upon receipt by us of your first written demand stating that such an amount (or lesser amount) as may be claimed is due and payable to the Employer.

This guarantee constitute an irrevocable, unconditional, non-negotiable and non-transferable undertaking to pay in accordance with the above, subject to the proviso that this Letter will not be interpreted as extending the Bank's liability to anything more than the Guaranteed Amount.

Notwithstanding anything to the contrary herein contained, the Bank's obligation shall be construed as principal and not as accessory to the contract and shall not be delayed or discharged by the fact that a dispute exists between the Employer and the Contractor.

We undertake to pay you such Guaranteed Amount upon receipt by us, within such period of 14 days, of your first written demand stating that such an amount (or lesser amount) as may be claimed is due and payable to the Employer.

The guarantee shall be governed by and construed in accordance with the laws of the Republic of South Africa

Signed at \_\_\_\_\_ on \_\_\_\_\_ 20....

For:  
**Registration Number:**



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**Name & Position**

As witnesses:

1. \_\_\_\_\_

2. \_\_\_\_\_



**PART C1: AGREEMENTS AND CONTRACT DATA**

**C1.4: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT**

**OCCUPATIONAL HEALTH AND SAFETY AGREEMENT**

**AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH & SAFETY ACT (ACT 85 Of 1993) & CONSTRUCTION REGULATION 5.1(k)**

**OBJECTIVES**

To assist Airport Company South Africa (ACSA) in order to comply with the requirements of:

1. The Occupational Health & Safety (Act 85 of 1993) and its regulations and
2. The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993) also known as the (COID Act).

**To this end an Agreement must be concluded before any contractor/ subcontracted work may commence**

**The parties to this Agreement are:**

<b>Name of Organisation:</b>  <b>AIRPORTS COMPANY SOUTH AFRICA</b> <b>King Shaka International Airport</b>
<b>Physical Address:</b> <b>Airport Company South Africa</b> <b>King Shaka International Airport</b> <b>La Mercy</b> <b>KwaZulu- Natal</b>

**Hereinafter referred to as "Client"**

<b>Name of organisation:</b>
<b>Physical Address</b>

**Hereinafter referred to as "the Mandatary/ Principal Contractor"**





## MANDATORY'S MAIN SCOPE OF WORK

### **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

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#### **GENERAL INFORMATION FORMING PART OF THIS AGREEMENT**

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepealed REGULATIONS promulgated in terms of the former Machinery and Occupational Safety Act No.6 of 1983 as amended as well as other REGULATIONS which may be promulgated in terms of the Act and other relevant Acts pertaining to the job in hand.
2. "Mandatory" is defined as including as agent, a principal contractor or a contractor for work, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant
3. Section 37 of the Occupational Health & Safety Act potentially punishes Employers (PRINCIPAL CONTRACTOR) for unlawful acts or omissions of Mandataries (CONTRACTORS) save where a Written Agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATARY.
4. All documents attached or refer to in the above Agreement form an integral part of the Agreement.
5. To perform in terms of this agreement Mandataries must be familiar and conversant with the relevant provisions of the Occupational Health & Safety Act 85 of 1993 (OHS Act) and applicable Regulations.
6. Mandatories who utilise the services of their own Mandatories (contractors) must conclude a similar Written Agreement with them.
7. Be advised that this Agreement places the onus on the Mandatory to contact the CLIENT in the event of inability to perform as per this Agreement.
8. This Agreement shall be binding for all work the Mandatory undertakes for the client.
9. All documentation according to the Safety checklist including a copy of the written Construction Manager appointment in terms of construction regulation 8, must be submitted 7 days before work commences.

#### **THE UNDERTAKING**

The Mandatory undertakes to comply with:

#### **INSURANCE**

1. The Mandatory warrants that all their employees and/or their contractor's employees if any are covered in terms of the COID Act, which shall remain in force whilst any such employees are present on the Client's premises. A letter is required prior commencing any work on site confirming that the Principal contractor or contractor is in good standing with the Compensation Fund or Licensed Insurer.
2. The Mandatory warrants that they are in possession of the following insurance cover, which cover shall remain in force whilst they and /or their employees are present on the Client's premises, or which shall remain in force for that duration of their contractual relationship with the Client, whichever period is the longest.
  - a. Public Liability Insurance Cover as required by the Subcontract Agreement.
  - b. Any other Insurance cover that will adequately makes provision for any possible losses and/or



claims arising from their and /or their Subcontractors and/or their respective employee's acts and/or omissions on the Client's premises.

#### **COMPLIANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT 85 OF 1993**

The Mandatary undertakes to ensure that they and/or their subcontractors if any and/or their respective employees will at all times comply with the following conditions:

1. All work performed by the Mandatary on the Client's premises must be performed under the close supervision of the Mandatary's employees who are to be trained to understand the hazards associated with any work that the Mandatary performs on the Client's premises.
2. The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the OHSAct 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.
3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the OHSAct 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.
4. The Mandatary shall ensure that a baseline risk assessment is performed by a competent person before commencement of any work in the Client's premises. A baseline risk assessment document will include identification of hazards and risk, analysis and evaluation of the risks and hazards identified, a documented plan and safe work procedures to mitigate, reduce or control the risks identified, and a monitoring and review plan of the risks and hazards.
5. The Mandatary shall appoint competent persons who shall be trained on any Occupational Health & Safety aspect pertaining to them or to the work that is to be performed.
6. The Mandatary shall ensure that discipline regarding Occupational Health & Safety shall be strictly enforced.
7. Any personal protective equipment required shall be issued by the Mandatary to his/her employees and shall be worn at all times.
8. Written safe working practices/procedures and precautionary measures shall be made available and enforced and all employees shall be made conversant with the contents of these practises.
9. No unsafe equipment/machinery and/or articles shall be used by the Mandatary or contractor on the Client's premises.
10. All incidents/accidents referred to in OHSAct shall be reported by the Mandatary to the Provincial Director: Department of Labour as well as to the Client.
11. No user shall be made by the Mandatary and/or their employees and or their subcontractors of any of the Client's machinery/article/substance/plant/personal protective equipment without prior written approval.
12. The Mandatary shall ensure that work for which the issuing of permit is required shall not be performed prior to the obtaining of a duty completed approved permit.
13. The Mandatary shall ensure that no alcohol or any other intoxicating substance shall be allowed on the Client's premises. Anyone suspected to be under the influence of alcohol or any other intoxicating substance shall not be allowed on the premises. Anyone found on the premises suspected to be under the influence of alcohol or any other intoxicating substance shall be escorted off the said premises immediately.
14. Full participation by the Mandatary shall be given to the employees of the Client if and when they inquire into Occupational Health & Safety.



**FURTHER UNDERTAKING**

1. Only a duly authorised representative appointed in terms of Section 16.2 of the OHS Act is eligible to sign this agreement on behalf of the Mandatary. The signing power of this representative must be designated in writing by the Chief Executive Officer of the Mandatary. A copy of this letter must be made available to the Client.
2. The Mandatary confirms that he has been informed that he must report to the Client's management, in writing anything he/she deems to be unhealthy and /or unsafe. He has versed his employees in this regard.
3. The Mandatary warrants that he/she shall not endanger the health & safety of the Client's employees and other persons in any way whilst performing work on the Client's premises.
4. The Mandatary understands that no work may commence on the Client's premises until this procedure is duly completed, signed and received by the Client.
5. Non-compliance with any of the above clauses may lead to an immediate cancellation of the contract.

**ACCEPTANCE BY MANDATARY**

In terms of section 37(2) of the Occupational Health & Safety Act 85 of 1993 and section 5.1(k) of the Construction Regulations 2014,

I ..... a duly authorised 16.2 Appointee acting for and on behalf of ..... (company name) undertake to ensure that the requirements and the provision of the OHSAct 85 of 1993 and its regulations are complied with.

Mandatary – WCA/ Federated Employers Mutual No.....

Expiry date .....

\_\_\_\_\_  
**SIGNATURE ON BEHALF OF MANDATARY**  
(Warrant his authority to sign)

\_\_\_\_\_  
**DATE**

\_\_\_\_\_  
**SIGNATURE ON BEHALF OF THE CLIENT**  
**AIRPORT COMPANY SOUTH AFRICA**

\_\_\_\_\_  
**DATE**



## PART C1: AGREEMENTS AND CONTRACT DATA

### 2 C1.4: ACSA INSURANCE CLAUSES

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#### INSURANCE CLAUSES FOR CAPEX PROJECTS

The insurance clauses in this document should be extracted and attached to tender documents and to contracts.

##### SECTION A: DEFINITIONS

**Landside** refers to:

- Areas of the airport before the security points; and
- The restricted area beyond the security points but, within the perimeter of gatehouses, passenger terminals and cargo buildings.

**Airside** refers to:

- The Apron / manoeuvring areas; and
- Area within the airside boundary/perimeter fence, excluding the internal areas of the passenger terminals, perimeter gatehouses and cargo buildings.
- Fuel Farm Area

##### SECTION B: INSURANCE CLAUSES

Commented [OS7]: Do we leave them both?

#### 1. Insurance requirements for construction projects with a value below R150 million (Excluding VAT) at award and a construction period not exceeding 36 months on the LANDSIDE

- Projects with a value below R150 million are automatically covered under an ACSA umbrella insurance.
- But please note that details of all projects with a value below R150 million, and with a duration that exceeds 36 months should be forwarded to ACSA Treasury as soon as the contractor is awarded (Email: [nokulunga.masiza@airports.co.za](mailto:nokulunga.masiza@airports.co.za)) as these projects are not automatically covered under an ACSA umbrella insurance.

##### 1.1 Contract Works

- The contractor must secure a contract works insurance cover in respect of all loss or damage for a minimum limit of R150 000, each and every claim.
- The contractor must secure a contract works insurance cover in respect of loss or damage arising from testing or commissioning for a minimum limit of R250 000, each and every claim.
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.

##### 1.2 Contract Works SASRIA

- The contractor must secure a contract works SASRIA insurance cover for a minimum limit of R25 000, each and every claim.

##### 1.3 Public Liability

- The contractor must secure Public Liability insurance cover for 3<sup>rd</sup> party property damage, for a minimum limit of R75 000 for each and every claim.
- The contractor must secure Public Liability insurance cover for removal of lateral support, for a minimum limit of R75 000 for each and every claim.
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.



#### 1.4 Professional Indemnity

- All consultants must secure Professional Indemnity cover for a limit of not less than **R5 million** for contracts **under R50 million** at award.
- All consultants must secure Professional Indemnity cover for a limit not less than **R10 million** for contracts **over R50 million** at award.
- The above is also applicable to contractors who have a material design element, excluding typical P & G related work, as part of their scope.
- Proof of cover in the form of a certificate of insurance must be submitted to ACSA before a contract is signed between ACSA and the service provider.

#### 2. Insurance requirements for **construction projects with a value below R150 million (Excluding VAT) at award and construction period not exceeding 36 months on the AIRSIDE.**

- Projects with a value below R150 million are automatically covered under an ACSA umbrella insurance.
- But please note that details of all projects with a value below R150million, and with duration that **exceeds 36 months** should be forwarded to ACSA Treasury as soon as the contractor is awarded (Email: [nokulunga.masiza@airports.co.za](mailto:nokulunga.masiza@airports.co.za)) as these projects are not automatically covered under an ACSA umbrella insurance.

#### 2.1 Contract Works

- The contractor must secure a contract works insurance cover in respect of all loss or damage for a minimum limit of R150 000, each and every claim;
- The contractor must secure a contract works insurance cover in respect of loss or damage arising from testing or commissioning for a minimum limit of R250 000, each and every claim;
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.

#### 2.2 Contract Works SASRIA

- The contractor must secure a contract works SASRIA insurance cover for a minimum limit of R25 000, each and every claim;
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.

#### 2.3 Public Liability

- The contractor must secure Public Liability insurance cover for 3rd party property damage, for a minimum limit of R75 000 for each and every claim;
- The contractor must secure Public Liability insurance cover for removal of lateral support, for a minimum limit of R75 000 for each and every claim;
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.

#### 2.4 Aviation Liability

- The contractor must secure Aviation Liability insurance cover for 3rd party property damage and injury, for a minimum limit of USD250 000 (Two hundred and fifty US Dollars) for each and every claim.
- The contractor must submit to ACSA proof of cover in the form of a certificate of insurance before a contract is signed between ACSA and the contractor.



## 2.5 Professional Indemnity

- All consultants must secure Professional Indemnity cover for a limit of not less than **R5 million** for contracts **under R50 million** at award
  - All consultants must secure Professional Indemnity cover for a limit not less than **R10 million** for contracts **over R50 million** at award
  - The above is also applicable to contractors who have a material design element, excluding typical P & G related work, as part of their scope
  - Proof of cover in the form of a certificate of insurance must be submitted to ACSA before a contract is signed between ACSA and the service provider.
3. **Insurance requirements for construction projects with a value above R150 million (Excluding VAT), and/or projects with a construction period that exceed 36 months on the LANDSIDE and AIRSIDE.**
- Projects with a value of more than R150 million, and projects with a construction period that exceeds 36 months are not automatically covered under the annual construction policies. A separate quote and deductibles are provided by insurers per project. Details of these projects should be forwarded to ACSA Treasury as soon as the contractor is awarded (Email: [nokulunga.masiza@airports.co.za](mailto:nokulunga.masiza@airports.co.za)).



## AIRPORTS COMPANY OF SOUTH AFRICA

**CONTRACT NO: \_\_\_\_\_ – DESIGN AND CONSTRUCTION OF TARRED  
EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

### C3.1 Pricing Assumptions and General Notes

1. The contractor shall, as per the NEC3, contract option B: Priced contract with Bill of Quantities provide a fully priced bill of quantities, to be handed in with this tender.
2. A bill of quantities is provided with the documentation. The bill of quantities aims provide information to the contractor in regard to measured quantities, distances, etc.
7. The responsibility for the accuracy of the quantities written into the bill of quantities remains with the party who prepared the bill of quantities. The Bidder are to ensure that the measuring of quantities at the tender stage, and the Bid Sum submitted are correct and include all items required for the installation of the works, as described in the works information section of this document.

Commented [TT8]: Investigate applicable option

The measurement and payment clauses of the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 shall be deemed to form part of and included in the Pricing Instructions.

#### C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES

C2.1.1.1 The Contract Data, the Scope of the Work and the Site Information are to be read in conjunction with the Bill of Quantities. Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. The payment Clause of each Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised or Scope of Work, as applicable, shall prevail.

C2.1.1.2 The Bill of Quantities comprises items covering the Contractor's profit and costs of general liabilities and of construction of temporary and permanent Works.

C2.1.1.3 The clauses in a specification in which further information regarding the billed item can be obtained appear under "Payment Refers" in the Bill. The reference clauses indicated are not necessarily the only sources of information in respect of billed items. Further information and set specifications may be found elsewhere in the contract documents.



Standardised Specifications are identified by the item item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).

- C2.1.1.4 The Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill but his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional Works carried out and that the Employer's Agent is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the Bill.
- C2.1.1.5 The measurement and payment clauses of each Specification, read together with the relevant clauses of the Specification Data, set out what ancillary or associated activities are included in the rate for the operations specified.
- C2.1.1.6 The Bill of Quantities has been drawn up generally in accordance with the latest issue of the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998. Descriptions in the Bill are abbreviated and must be read in conjunction with the measurement and payment clauses of the applicable Specifications.
- C2.1.1.7 Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.
- C2.1.1.8 All the rates tendered and inserted in the Bill of Quantities shall be **exclusive** of VAT. Provision has been made on the Summary Page of the Bill of Quantities for the addition of VAT. Except that they shall not include Value Added Tax (VAT), the rates to be inserted in the Bill of Quantities are to be the full inclusive rate to the Employer for the work described under each item. Such rates shall cover all costs and expenses that may be required in and for the construction of the work described and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based.
- **C2.1.1.9 Notwithstanding C2.1.1.8 above, all rates tendered and inserted in the Bill of Quantities against each item shall be deemed to be inclusive of the Contractor's labour cost for all permanent unskilled, semi-skilled, skilled and supervisory staff. All other labour costs in terms of local labour employed in terms of Sub Clauses 4.3.5 and 4.3.6 of the Conditions of Contract, shall be payable to the Contractor as listed and detailed under Section 1: Preliminary and General of the Bill of Quantities.**
- C2.1.1.10 A rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no rate has been entered will be considered to have a rate of R 0, 00.





- C2.1.1.11 The Tenderer must price and extend each item, total each page and carry the total of each section in the Bill of Quantities to the Summary page.
- C2.1.1.12 Attention is drawn to Clause 6.7 of the Conditions of Contract and the Contractor must not order the quantities of materials stated in the Bill of Quantities until he has confirmed from the construction drawings or measurement on Site that such quantities are in fact the correct quantities. The quantities set out in the Bill of Quantities are the estimated quantities of the Contract Works but the Contractor will be required to undertake whatever quantities may be directed by the Employer's Agent from time to time. The final Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
- C2.1.1.13 The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- C2.1.1.14 Except where rates only are required, the Tenderer shall insert all amounts to be included in his total tendered price in the "Amount" column and show the corresponding total tendered price.
- C2.1.1.15 Arithmetical errors of responsive tenders shall be corrected in the manner specified under the Standard Conditions of Tender. **(Refer also CIDB Practice Note No. 2 dated August 2006)**
- C2.1.1.16 Abbreviations The units of measurement described in the Bill of Quantities are metric units.

Commented [TT9]: ncl note to instruct to complete provided excl ver.

used in the Bill of Quantities are as follows:

%	=	percent
hr	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
m <sup>2</sup>	=	square metre
m <sup>2</sup> -pass	=	square metre-pass



**AIRPORTS COMPANY**  
SOUTH AFRICA

m <sup>3</sup>	=	cubic metre
m <sup>3</sup> -km	=	cubic metre-kilometre
MN	=	meganewton
MN.m	=	meganewton-metre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
L/sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	work day
months	=	months
veh/month	=	vehicle month
man-day	=	each flagman per day



**CONTRACT NO: \_\_\_\_\_ – DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**C2.3.1 Schedule A: Roadworks**

**C2.3.2 Schedule B: Professional Services Team**

**C2.3.3 Summary of Schedules**



Schedule A: Roadworks

SECTION 1300

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Commented [OS10]: Should we not put this in excel?

Commented [TT11R10]: To provide excel ver. Note: request bidder to send via electronic.

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
13.00	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS					
PS B13.01	Contractor's general obligations					
	(a) Fixed obligations	L/sum	1.0			
	(b) Value-related obligations	L/sum	1.0			
	(c) Time-related obligations	month	9.0			
PS B13.02	Occupational Health and Safety Act and Construction Obligations					
	(a) Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	L/sum	1.0			
	(b) Submission of the Health & Safety File to the Employer complete, and to the satisfaction of the Employer	L/sum	1.0			
	(c) Time-related obligations for the updating and mending the risk assessments, the safe work procedures, the project H&S file and the H&S plan, and for full compliance with all H&S matters during construction of the works under the contract.	month	9.0			
PS B13.03	Location of Underground Services by Non-Destructive Means					
	(a) by Specialist Sub-contractor	Prov sum	1.0			
	(b) Contractor's mark-up on (a)	%	30 000.00		300 000.00	
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 1400

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
14.00	HOUSING, OFFICES AND LABORATORY FOR THEENGINEER'S SITE PERSONNEL					
PS B14.01	Office and laboratory accommodation					
	(a) Offices (interior floor space only)	m <sup>2</sup>	18.0			
14.02	Office and laboratory furniture					
	(a) Chairs	No	4.0			
	(d) Desks, complete with drawers and locks	No	2.0			
14.03	Office and laboratory fittings Installations and equipment					
	(a) Items measured by number					
	(11) Air conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	No	2.0			
	(14) General-purpose steel cupboards with shelves	No	1.0			
	(15) Steel filing cabinets with drawers	No	1.0			
	(17) Bookcases	No	2.0			
	(c) Items measured by area					
	(8) Notice boards as specified	m <sup>2</sup>	2.0			
14.04	Car ports					
	(a) Car ports, as specified, at offices and laboratory buildings	No	2.0			
14.08	Services					
	(a) Services at office and laboratories					
	(1) Fixed costs	L/sum	1.0			
	(2) Running costs	month	12.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 1500

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
15.00	ACCOMMODATION OF TRAFFIC	L/sum	1.0			
PS B15.01	Accommodating traffic and maintaining temporary deviations					
Total Carried Forward To Summary						



**CONTRACT NO:** \_\_\_\_\_ **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 1600

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
16.00	OVERHAUL					
16.01	Overhaul on material hauled in excess of a free-haul distance of 0,5 km for haul up to or through 1,0 km (restricted overhaul)	m³	13 200.0			
16.02	Overhaul on material hauled in excess of 1,0 km (ordinaryoverhaul)	m³-km	65 700.0			
Total Carried Forward To Summary						



CONTRACT NO: \_\_\_\_\_ **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 1700

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
17.00	CLEARING AND GRUBBING					
17.01	Clearing and grubbing	ha	3.0			
17.02	Removal and grubbing of large trees and tree stumps					
	(a) Girth exceeding 1m up to and including 2m	No	0.0			
17.05	Cleaning out of hydraulic structures					
	(a) Pipes with an internal diameter up to and including 750mm	m <sup>3</sup>	4.0			
17.06	Removal and storage of selected vegetation:					
	(a) Cost of removal, storing, protection and replanting in a protected and fenced-off area of selected vegetation	Prov sum	1.0		20 000	00





	(b) Charge on provisional sum	%	20 000.00			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 2100

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
21.00	DRAINS					
21.01	Excavation for open drains:					
	(a) Excavating soft material situated within the following depth ranges below the surface level:					
	(1) 0 m up to 1,5 m	m <sup>3</sup>	340.0			
	(2) Exceeding 1,5 m and up to 3,0 m	m <sup>3</sup>	1 630.0			
	(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	220.0			
21.02	Clearing and shaping existing open drains	m <sup>3</sup>	100.0			
21.03	Excavation for subsoil drainage systems:					
	(a) Excavating soft material situated within the following depth ranges below the surface level:					
	(1) 0 m up to 1,5 m	m <sup>3</sup>	670.0			
	(b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m <sup>3</sup>	80.0			
21.04	Impermeable backfilling to subsoil drainage systems	m <sup>3</sup>	90.0			
21.05	Banks and dykes	m <sup>3</sup>	1 000.0			
21.06	Natural permeable material in subsoil drainage systems (crushed stone):					
	(b) Crushed stone obtained from commercial sources					
	(2) Coarse-Grade 19mm	m <sup>3</sup>	240.0			
21.07	Natural permeable material in subsoil drainage systems (sand):					
	(b) Sand from commercial sources					
	(1) Coarse Grade 4.75mm	m <sup>3</sup>	60.0			
21.08	Pipes in subsoil drainage systems:					
	(b) Unplasticised PVC pipes and fittings, normal duty complete with couplings					
	(1) 100 mm internal dia. perforated or slotted	m	1 330.0			
	(2) 100 mm internal dia. unperforated	m	300.0			
21.10	Synthetic-fibre filter fabric					
	(a) Type non-woven needle punched Grade A2 (Bidim or similar)	m <sup>2</sup>	2 780.0			
Total Carried Forward						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 2100

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
Brought Forward						
21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:					
	(a) Outlet structures	No	5.0			
21.17	Test flushing of pipe subsoil drains	No	5.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 2200**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
22.00	PREFABRICATED CULVERTS					
22.01	Excavation (a) Excavating soft material situated within the following depth ranges below the surface level: (1) 0 m up to 1.5 m	m <sup>3</sup>	180.0			
	(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	20.0			
22.02	Backfilling: (a) Using the excavated material	m <sup>3</sup>	100.0			
	(b) Using imported selected material	m <sup>3</sup>	70.0			
	(c) Using coarse sand from commercial sources	m <sup>3</sup>	40.0			
22.03	Concrete pipe culverts: (a) On class A bedding					
	(2) 450mm dia. Type Spigot and Socket 100D	m	30.0			
	(3) 600mm dia. Type Spigot and Socket 100D	m	30.0			
22.07	Cast in situ concrete and formwork (a) In class A bedding, screeds and the encasing for pipes, including formwork					
	(2) Class 30/19	m <sup>3</sup>	30.0			
	(c) In inlet and outlet structures, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including class U2 surface finish					
	(1) Class 30/19	m <sup>3</sup>	20.0			
	(d) Formwork of concrete under subitem 22.07(c) above					
	(2) Vertical formwork for F2 surface finish	m <sup>2</sup>	20.0			
22.14	Removing and stacking existing prefabricated culverts (type and size indicated) (a) Concrete, 600mm dia	m	20.0			
22.18	Brickwork (b) 230 mm thick	m <sup>2</sup>	200.0			
	(c) 345 mm thick	m <sup>2</sup>	30.0			
22.23	Service ducts: (a) Ordinary pipes					
Total Carried Forward						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 2200**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
Brought Forward						
	(3) Unplasticised PVC pipes					
	(i) 110 mm dia.	m	220.0			
	(iii) 160 mm dia.	m	220.0			
22.24	Duct marker blocks					
	(a) Concrete as per drawing	No	20.0			
PS B22.26	Hand excavation to determine the positions of existingservices	m³	300.0			
PS B22.29	Adjustments to existing stormwater infrastructure					
	(a) Convert existing stormwater catchpit to grid inlet with HDCast-iron grid (Flat, 450 x 760 or similar) complete	No	1.0			
	(b) Lower existing MH cover complete with new HD cast ironlid (Type 2A or similar)	No	1.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 2300

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
23.00	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS					
23.02	Concrete kerbing-channelling combination (c) Precast kerb to SABS 927 and cast-in-situ channel (concrete class 20/19) (6) Figure 6 kerb	m	50.0			
23.07	Trimming of excavations for concrete-lined open drains (a) In soft material (b) In hard material	m <sup>2</sup> m <sup>2</sup>	60.0 20.0			
23.08	Concrete lining for open drains (a) Cast in situ concrete lining class 25/19 for (3) Trapezoidal (i) 100mm thick to sides and base (b) Class U2 surface finish to cast in situ concrete for (3) Trapezoidal	m <sup>3</sup> m <sup>2</sup>	10.0 60.0			
23.09	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish) (c) To ends of slabs	m <sup>2</sup>	10.0			
23.10	Sealed joints in concrete linings of open drains (a) Polysulphide sealants	m	30.0			
23.12	Steel reinforcement (a) Mild steel bars (b) High-tensile steel bars (c) Welded steel fabric	t t kg	0.1 0.1 280.0			
23.13	Polyethylene sheeting (0,15 mm thick) for concrete-lined open drains	m <sup>2</sup>	60.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 3300**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
33.00	MASS EARTHWORKS					
33.01	Cut and borrow to fill, including free-haul up to 0.5km (a) Soil or gravel material in compacted layer thickness of 200mm and less: (2) Compacted to 93% of modified AASHTO density (minimum G9)	m <sup>3</sup>	450.0			
33.03	Extra over item 33.01 for excavating and breaking down material in: (a) Intermediate excavation (b) Hard excavation	m <sup>3</sup> m <sup>3</sup>	50.0 50.0			
33.04	Cut to spoil, including free-haul up to 0,5 km. Material obtained from: (a) Soft excavation (b) Intermediate excavation (c) Hard excavation	m <sup>3</sup> m <sup>3</sup> m <sup>3</sup>	9 100.0 1 670.0 840.0			
33.07	Removal of unsuitable material (including free-haul of 0.5 km): (a) In layer thicknesses of 200 mm and less: (1) Stable material (2) Unstable material (b) In layer thicknesses exceeding 200mm (1) Stable material (2) Unstable material	m <sup>3</sup> m <sup>3</sup> m <sup>3</sup> m <sup>3</sup> m <sup>3</sup>	200.0 200.0 400.0 400.0			
33.10	Roadbed preparation and the compaction of material (a) Compaction to 93% of modified AASHTO density	m <sup>3</sup>	1 850.0			
33.12	In situ treatment of roadbed: (a) In situ treatment by ripping	m <sup>3</sup>	190.0			
33.13	Finishing-off cut and fill slopes, medians and interchange areas: (a) Cut slopes (b) Fill slopes (c) Medians and interchange areas	m <sup>2</sup> m <sup>2</sup> m <sup>2</sup>	6 000.0 6 000.0 2 000.0			
Total Carried Forward						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 3300

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
Brought Forward						
33.14	Extra over item 33.01 for excavating material from the pavements and fills of existing roads:					
	(a) Non-cemented material	m <sup>3</sup>	60.0			
	(b) Cemented material	m <sup>3</sup>	60.0			
PS B33.20	Temporary backfilling and re-excavation of works areas within restricted airside areas	m <sup>3</sup>	500.0			
PS B33.21	Trimming of areas to create a temporary 1:100 deviation from grade batter within restricted airside areas	m <sup>2</sup>	15 000.0			
Total Carried Forward To Summary						





**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 3400**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
34.00	PAVEMENT LAYERS OF GRAVEL MATERIAL					
34.01	Pavement layers constructed from gravel taken from cut or borrow, including free haul up to 1,0 km					
	(a) Gravel selected layer compacted to:					
	(1) 95% of modified AASHTO density, 150mm thick G7	m³	1 700.0			
	(2) 95% of modified AASHTO density, G7 infill below shoulders / verges in 150mm thick layers	m³	450.0			
	(f) Gravel base (chemically stabilized material) compacted to:					
	(2) 97% of modified AASHTO density, 150mm using G4	m³	2 700.0			
	(g) Gravel shoulder compacted to:					
	(2) 95% of modified AASHTO density, 150mm G5	m³	250.0			
	(h) Gravel wearing course compacted to:					
	(2) 95% of modified AASHTO density, 200mm G6	m³	350.0			
34.11	Watering the pavement excavation floor	kl	70.0			
B34.14	Extra over item 33.10 for make up of deficiency or levelling of roadbed by addition of G5 material	m³	900.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 3500

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
35.00	STABILIZATION					
35.01	Chemical stabilization extra over unstabilised compacted layers  (b) Sub-base  (2) 150mm thickness (stabilised G4, with 5% cement by mass)	m <sup>3</sup>	2 680.0			
35.02	Chemical stabilising agent:  (a) Ordinary portland cement	t	70.0			
35.04	Provision and application of water for curing	kl	450.0			
35.05	Curing by covering with the subsequent layer	m <sup>2</sup>	13 000.0			
PS B35.14	Extra over 35.05 for curing by covering with the temporary layer	m <sup>2</sup>	4 000.0			
PS B35.15	Trial sections for working in restricted zones	m	60.0			
PS B35.16	Working in the restricted zone	m	600.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 4100

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
41.00	PRIME COAT					
41.01	Prime coat: (b) MSP-1	litre	10 000.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 4200

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND  
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Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
42.00	ASPHALT BASE AND SURFACING					
42.01	Asphalt base (a) Using 80/100 pen. bitumen (1) Continuously graded (maximum size 26,5 mm) (i) 80 mm thick	m <sup>2</sup>	8 000.0			
42.02	Asphalt surfacing (state specified thickness and type of bitumen) (a) Continuously graded (2) Medium graded (iv) 40 mm thick	m <sup>2</sup>	7 700.0			
42.04	Tack coat of 30% stable-grade emulsion	litre	8 300.0			
42.05	Binder variations (a) Penetration grade bitumens	t	1.0			
42.08	100 mm cores in asphalt paving	No	50.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 5100

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND  
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Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
51.00	PITCHING, STONEMWORK AND PROTECTION AGAINSTEROSION					
51.01	Stone pitching:					
	(b) Grouted stone pitching	m <sup>2</sup>	50.0			
51.05	Concrete edge beams					
	(a) Class 20/38	m <sup>3</sup>	4.0			
51.07	Foundation trenches	m <sup>3</sup>	4.0			
Total Carried Forward To Summary						



**CONTRACT NO:** \_\_\_\_\_ **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 5200

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
52.00	GABIONS					
52.01	Foundation trench excavation and backfilling: (b) In all other classes of materials	m <sup>3</sup>	280.0			
52.02	Surface preparation for bedding the gabions	m <sup>2</sup>	780.0			
52.03	Gabions: (b) PVC-coated gabion boxes (3) 1,0 m wide by 1,0 m high (i) by 2,0 m long mesh 80mm 2.7mm galavanised wire	m <sup>3</sup>	60.0			
	(d) PVC-coated gabion mattresses (2) 0,6 m diaphragm spacing, 6,0 m long by 2,0 m wide (i) by 0,23 m deep mesh 80mm 2.7mm galavanised wire	m <sup>3</sup>	110.0			
52.05	Filter fabric (b) Synthetic-fibre, non-woven needle punched Grade A4(Bidim or similar)	m <sup>2</sup>	930.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 5400**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
54.00	GUARDRAILS					
54.01	Guardrails on timber posts:					
	(a) Galvanised	m	100.0			
54.03	Extra over items 54.01, 54.02 and 54.11 for horizontally curved guardrails factory bent to a radius less than 45m	m	30.0			
54.04	End treatments:					
	(a) End wings	No	6.0			
54.05	Additional guardrail posts:					
	(a) Timber	No	20.0			
54.06	Reflective plates	No	25.0			
54.07	Removing existing guardrails	m	25.0			
54.09	Re-erection of guardrails with recovered and/or new material:					
	(a) Single guardrail	m	25.0			
54.10	Re-erection of end treatments with recovered material:					
	(a) End wings	No	1.0			
54.11	New material required for the re-erection of guardrails with recovered materials:					
	(b) Timber posts	No	10.0			
	(d) Reflective plates	No	5.0			
	(e) Spacer blocks	No	10.0			
	(f) Splice bolt complete with nut and washer	No	5.0			
	(g) Post bolt complete with nut and washer	No	10.0			
	(h) Reinforcing plates	No	5.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 5500

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
55.00	FENCING					
55.01	Clearing the fence line, 2m wide strip	km	0.1			
PS B55.10	Fencing and gates by specialist fencing contractor					
	(a) Emergency Gate 1: Raise existing gate and adjacent fencepanels by up to 200mm to match new road levels	Prov sum	1.0		20 000	00
	(b) Realign existing security fencing and add new double leafgate crossing the Northern Road	Prov sum	1.0		50 000	00
	(c) Contractor's mark-up on (a) and (b)	%	70 000.0			
Total Carried Forward To Summary						





**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 5600

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND  
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Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
56.00	ROAD SIGNS					
56.01	Road sign boards with painted or colored semi-matt background. Symbols, lettering and borders in semi-matt blackor in Class 1 retro-reflective material, where the sign board is constructed from:  (e) Aluminium sheet regulatory warning and information signs (1) Octagonal (i) 610 mm (2) Triangular (i) 900 mm side (3) Round (i) 600 mm (4) Rectangular (i) 200 mm wide x 800 mm high (Type W401/ W402) (ii) 2700 mm wide x 450mm high (Type W410 - split into 2 x1350mm lengths and mounted on gates) (iii) 2700 mm wide x 450mm high (Type W409) (iv) 450 mm wide x 450mm high (Type W405 / W406)	No	10.0			
		No	9.0			
		No	4.0			
		No	10.0			
		No	6.0			
		No	1.0			
		No	20.0			
56.03	Road sign supports (overhead road sign structures excluded): (c) Timber (1) 100 mm dia. (2) 150 mm dia.	m	50.0			
		m	150.0			
56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m <sup>3</sup>	20.0			
56.08	Dismantling, storing and re-erecting road signs with a surfacearea of: (a) Up to 2 m <sup>2</sup>	No	4.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SECTION 5700**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
57.00	ROAD MARKINGS					
57.02	Retro-reflective road marking paint:					
	(a) White lines (broken or unbroken)					
	(1) 100 mm wide	km	1.5			
	(2) 150 mm wide	km	0.2			
	(4) 300 mm wide	km	0.2			
	(b) Yellow lines (broken or unbroken)					
	(1) 100 mm wide	km	0.2			
	(2) 150 mm wide	km	0.2			
	(c) Red lines (broken or unbroken) (width of line indicated)					
	(2) 150 mm wide	km	0.2			
	(d) White lettering and symbols	m <sup>2</sup>	23.0			
	(e) Yellow lettering and symbols	m <sup>2</sup>	5.0			
	(f) Transverse lines, painted island and arrestor bed markings(any colour)	m <sup>2</sup>	20.0			
57.04	Variations in rate of application:					
	(a) White paint	litre	100.0			
	(b) Yellow paint	litre	10.0			
	(c) Red paint	litre	10.0			
	(d) Retro-reflective beads	kg	10.0			
57.05	Road studs					
	(b) Bi-directional					
	(1) Stimsonite or similar	No	100.0			
57.06	Setting out and premarking the lines (Excluding traffic-islandmarkings, lettering and symbols)	km	2.5			
57.07	Re-establishing the painting unit at the end of themaintenance period	L/su m	1.0			
57.08	Removal of existing, temporary or permanent road markingsby:					
	(a) Sandblasting	m <sup>2</sup>	10.0			
57.09	Removal of existing roadstuds	No	5.0			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

**SECTION 5800**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
58.00	LANDSCAPING AND PLANTING PLANTS					
58.01	Trimming					
	(a) Machine trimming	m <sup>2</sup>	10 000.0			
	(b) Hand trimming	m <sup>2</sup>	5 000.0			
58.03	Preparing the areas for grassing:					
	(b) Scarifying for loosening topsoil	ha	15 000.0			
	(c) Topsoiling within the road reserve, where the following materials are used:					
	(1) Topsoil obtained from within the road reserve or borrowareas (free haul 1,0 km)	m <sup>3</sup>	1 200.0			
	(f) Stockpiling of topsoil (free-haul 1,0 km)	m <sup>3</sup>	1 200.0			
58.04	Grassing:					
	(a) The planting of grass cuttings					
	(1) Kweek grass (Cynodon Dactolyn)	ha	1.0			
	(b) Sodding by using the following types of sods:					
	(3) Kweek grass (Cynodon Dactolyn) sods	m <sup>2</sup>	1 000.0			
	(c) Hydroseeding:					
	(3) Hydroseeding (Cynodon Dactolyn)	ha	2.0			
58.05	Watering the grass when established by topsoiling only	kl	100.0			
PS B58.12	Installation of shade netting over newly planted areas	m <sup>2</sup>	50.0			
Total Carried Forward To Summary						



**CONTRACT NO:** \_\_\_\_\_ **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 5900

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
59.00	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS					
59.01	Finishing the road and road reserve: (b) Single carriageway road	km	1.5			
59.02	Treatment of old roads and temporary deviations	km	0.2			
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 8100

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
81.00	TESTING MATERIALS AND WORKMANSHIP					
81.02	Other special tests requested by the engineer	Prov sum	1.0		100 000	00
Total Carried Forward To Summary						



**CONTRACT NO: \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

SECTION 8400

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND  
ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Number	Item Description	Unit	Quantity	Rate	Amount	
					R	c
84.00	PAINTING					
PS B84.01	Painting: (a) Marking of obstacles in accordance with ICAO requirements	m <sup>2</sup>	250.0			
Total Carried Forward To Summary						



**C.2.3.2 Schedule B: Professional Services Team**

**BIDDER TO COMPLETE BILL OF QUANTITY IN EXCEL DOCUMENT PROVIDED AND ATTACH PDF COPY AS ANNEXTURE TO THIS SUBMISSION**

Item	Description	Amount R
<b>1</b>	<b><u>Construction Project Manager</u></b>	
Percentage (%) of the construction value, total amount of <b>Schedule A</b> Bill of Quantity, of R _____ (excl VAT) for Construction Project Manager		
Project Manager services fee is _____%		
1.1	Stage 3 - Design Development	
1.2	Stage 4 - Design Documentation	
1.3	Stage 5 - Construction	
1.4	Stage 6 - Close-Out	
1.5	<b>Subtotal 1</b>	
<b>2</b>	<b><u>Civil Engineer</u></b>	
Percentage (%) of the construction value, total amount of <b>Schedule A</b> Bill of Quantity, of R _____ (excl VAT) for Civil Engineer		
Engineer services fee is _____%		
2.1	Stage 3 - Design Development	
2.2	Stage 4 - Design Documentation	
2.3	Stage 5 - Construction	
2.4	Construction Monitoring (Level 2 @ 8hrs per week)	
2.5	Collation of information; municipal inspections, tests, site and other investigations.	
2.6	Stage 6 - Close-Out	
2.7	<b>Subtotal 2</b>	
<b>3</b>	<b><u>Quantity Surveyor</u></b>	
Percentage (%) of the construction value, total amount of <b>Schedule A</b> Bill of Quantity, of R _____ (excl VAT) for (quantity survvor)		
Quantity Surveyor services fee is _____%		
3.1	Stage 3 - Design Development	
3.2	Stage 4 - Design Documentation	
3.3	Stage 5 - Construction	

Commented [TT12]: Should be construction offer value



3.4	Stage 6 - Close-Out	
3.5	<b>Subtotal 3</b>	
<b>4</b>	<b><u>Construction Health and Safety Agent</u></b>	
Percentage (%) of the construction value, total amount of <b>Schedule A</b> Bill of Quantity, of R _____ (excl VAT) for Construction Health and Safety		
Construction Health and Safety Agent services fee is _____ %		
4.1	Stage 3 - Design Development	
4.2	Stage 4 - Design Documentation	
4.3	Stage 5 - Construction	
4.4	Stage 6 - Close-Out	
4.5	<b>Subtotal 4</b>	
<b>5</b>	<b>Subtotal 5 (Sum subtotal 1-4)</b>	
<b>6</b>	<b>*Add Disbursements</b>	
<b>7</b>	<b>Add Contingencies (10% of item 5 – Subtotal 5)</b>	
	<b>Subtotal 7 (item 5 to 7)</b>	
	<b>Add 15% VAT</b>	
	<b>TOTAL (export to form of offer C1.1)</b>	

\*Provide detailed breakdown of all items catered for under the disbursement:  
(Include once off cost of **R10,000.00** for airport personal permits for staff dedicated to the project)





**C2.3.3 Summary of Schedules**

**SUMMARY OF SECTIONS**

Section	Description	Amount (Rand)
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	.....
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	.....
1500	ACCOMMODATION OF TRAFFIC	.....
1600	OVERHAUL	.....
1700	CLEARING AND GRUBBING	.....
2100	DRAINS	.....
2200	PREFABRICATED CULVERTS	.....
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	.....
3300	MASS EARTHWORKS	.....
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL	.....
3500	STABILIZATION	.....
4100	PRIME COAT	.....
4200	ASPHALT BASE AND SURFACING	.....
5100	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION	.....
5200	GABIONS	.....
5400	GUARDRAILS	.....
5500	FENCING	.....
5600	ROAD SIGNS	.....
5700	ROAD MARKINGS	.....
5800	LANDSCAPING AND PLANTING PLANTS	.....
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	.....
8100	TESTING MATERIALS AND WORKMANSHIP	.....
8400	PAINTING	.....
Total Carried Forward To Summary Of Schedules		=====



CONTRACT NO: \_\_\_\_\_ **DESIGN AND CONSTRUCTION OF TARRED EMERGENCY  
ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT**

**SUMMARY OF SCHEDULES**

Schedule / Line	Description	Amount (Rand)
A	SCHEDULE A	..... _____
B	SECHEDULE B	..... _____
1	TOTAL OF SCHEDULES ABOVE	.....
2	CONTINGENCIES (10% OF LINE 1 ABOVE)	.....
3	CONTRACT PRICE ADJUSTMENT (Provisional Sum)	1 500 000.00
4	SUBTOTAL OF LINES 1, 2 AND 3 ABOVE	.....
5	VALUE ADDED TAX (15% OF LINE 4 ABOVE)	..... _____

TOTAL OF LINES 4 AND 5 ABOVE (CARRIED FORWARD TO FORM OF OFFER)



**C2.3 DECLARATION (In respect of completeness of Tender)**

I/we, the undersigned, do hereby declare that these are the properly priced according to part C2.2 of this Contract Document in consecutive order upon which my/our tender for **BID NO. : \_\_\_\_\_ DESIGN AND CONSTRUCTION OF TARRED EMERGENCY ACCESS ROADS AT KING SHAKA INTERNATIONAL AIRPORT** has been based.

-----  
SIGNATURE OF TENDERER/S

-----  
DATE

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### **C3: Employer's Works Information**

Commented [TT13]: Note Reference to GCC

- C3.1 Introduction
- C3.2 Description of the Works
- C3.3 Professional Services Scope  
of Work
- C3.4 Engineering
- C3.5 Procurement
- C3.6 Construction
- C3.7 Management
- C3.8 Particular Specifications

Contract  
Part C3: Scope of Work  
Contract No.

C3-

**C3.2  
Engineering**

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## TERMS AND ABBREVIATIONS

**Engineer:** "Engineer" referred to in the works information also refer to the Supervisor for this contract, the details thereof as stated in Part C1.2 Contract data.

**The Client:** "The Client" referred to in the works information is synonymous to the The Employer for this contract, the details thereof as stated in Part C1.2 Contract data.

### C.3.1 Introduction

The emergency access routes from the runway ends leading to the two airport's emergency access gates at King Shaka International Airport (KSIA) are not fit for purpose. Emergency roads from both ends of Runway 06/24 are not in line with the designated emergency gates – Runway 06 emergency access road is not in line with Emergency gate 3 and Runway 24 emergency access road is not in line with Emergency gate1. This affects the necessary response time required for emergency vehicles to react to an incident.

On Emergency gate 3 - Ambulances and other emergency LDV's cannot gain access to emergency gate no 3 due to the raised concrete curb being too high. Currently a temporary solution is in place by which sandbags are being used to enable these LDVs to mount the curb. Again, this is unacceptable and warrants a permanent solution providing a hardstand surface between the M65 and the gate capable of withstanding a carrying capacity of 80 ton. Due to erosion, the gravel emergency access road to Emergency Gate 1 has deteriorated to the extent that is unserviceable. It is envisaged that future rain and weather conditions will result in deterioration of this gravel road, this is unacceptable as this is an emergency access road that is required 24/7.

The project started in November 2017 for the full implementation of phase, work within the airport airside boundary. Successful implementation continued up to stage 4 with the approval of the business decision on the agreed scope. Stage 5 was partially completed with the appointment of a contractor on the works, however the contract was terminated in August 2021 prior to the contractor commencing with actual work on site and deferred to future years.

Tenderers should note that all the works are located within the airport's airside. All contractor personnel and vehicles will require permits and adhere to ACSA's requirements for working at airside.

Tenderers are advised to visit the site and acquaint themselves with all local conditions pertaining to the execution of the construction before the tender closing date. Arrangement with ACSA will be required for this purpose.

'Document' shall mean the complete set of contract documents, including the tender conditions, the reference specifications, the drawings, and the sample BoQ.

The contractor appointed according to this document shall serve as the main contractor for this project. All subcontractors employed by the contractor shall fall under the responsibility of the contractor and the contractor shall manage and report on their works accordingly.

### **C.3.2 Description of Works**

#### **C3.2.1 Overview of The Works**

The contract comprises:

- approximately 1.2km of new asphalted roads, 6m width
- approximately 300m of reinstated gravel roads, 6m width
- Installation of concrete stormwater pipes (up to 600mm dia), and associated inlet and outlet structures
- Associated signage and road markings.

A significant portion of the works falls within the airport airside and the associated restrictions on access and methodologies form an important aspect of this contract.

In addition, there is a programming restriction for the Southern Road in Part C3-4 Section PS-2 Clause 2.9

#### **C3.2.3 Extent of The Works**

Detailed description of the scope as follows:

1. Southern road
  - linking the south end of Runway 06E to Dube Boulevard, via Emergency Gate 3
  - approximately 350m long, 6m wide asphalt surfacing with gravel shoulders
  - Tie-in at runway edge
  - New bell-mouth at Dube Boulevard
  - Replacement of stormwater culvert near Dube Boulevard
  - Associated permanent signage and markings
2. Northern road
  - linking the north end of Runway 24E to existing gravel road via Emergency Gate 1
  - Approximately 800m long, 6m wide asphalt surfacing with gravel shoulders
  - Reinstatement of approximately 300m of gravel road, 6m wide, linking new asphalt road to T-junction on gravel road
  - Installation of new 600mm dia. concrete pipe culverts at + Ch 0+450 and Ch 0+680
  - Associated permanent signs and markings
3. Existing services
  - Determination of location of existing services by non-destructive means as well as careful hand excavation
  - Protection of services
4. Accommodation of traffic / pedestrians
  - Temporary access or alternative routes shall be available at all times
  - Appropriate temporary roadworks signage at all work locations
5. As-built surveys
  - As-built survey of all permanent works, including buried services located during construction

### C3.3 Professional Services scope of Work

#### C3.3.1 Project Manager

Standard and full project management services for the Tarred Emergency Access Roads scope of work as per the Guidelines for Scope of Services in respect of services for such work rendered by persons registered in terms of the Project and Construction Management Professions Act, 2000 (Act No. 48 of 2000).

Project Manager will be the project lead for our professional services appointed on the project.

#### Extent of the Project Management Services:

- Planning, programming, reporting and management of the condition assessment process (Due Diligence).
- Planning, programming, reporting and management of the phasing and interface of construction so as not to interfere with normal operation of existing terminal spaces.
- Planning, programming and management of operational readiness of areas under the project scope and interface areas.
- Liaison with internal and external project stakeholders to ensure approval and delivery of the project timeously.
- Risk identification, management and reporting during life of the project

#### C3.3.2 Engineers

Standard and full engineering services under each engineering discipline for the Tarred Emergency Access Roads scope of work as per the latest Guideline for Scope of Service for such Persons Registered in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000).

#### Extent of the Engineering Service:

- Planning, design, management of implementation, handover and close out for the multiple disciplines to be provided in the project as tendered and to included but not limited to the following;
- Planning, programming, management and reporting of all condition assessment required to execute all pertinent phases of the project (Due Diligence exercise).
- Planning, programming, management and reporting of the phasing and interfaces of services installations so as not to interfere with normal operations of existing engineering installations and terminal spaces.
- Planning, programming and management of operational readiness of all engineering installations in areas under the project scope and the interface areas.
- Liaison with internal and external project stakeholders to ensure specific compliances crucial to the delivery of the project.
- Risk identification, management and reporting during life of the project.

Contract  
Part C3: Scope of Work  
Contract No.

C3-

C3.2  
Engineering

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- Design and specification of engineering services for overall improved life cycle of all engineering services.

### **C3.3.3 Quantity Surveyor**

Standard and full Quantity Surveying services for the alterations and additions work for the Tarred Emergency Access Roads scope of work as per the Guidelines for Scope of Service in respect of services rendered by persons registered in terms of Section 34(2) of the Quantity Surveying Profession Act, 2000 (Act 49 of 2000) guideline of professional fees.

#### **Extent of the Quantity Surveying Services**

- Project financial risk assessment, management and reporting.
- Pro-active project budget management and reporting.
- Implement project cost saving solutions on behalf of Client.
- Diligent and proactive project cash-flow management and reporting.
- Project Capitalisation at completion stages of the project.

### **C3.3.4 Construction Health and Safety Agent**

Standard and full project management services for the Tarred Emergency Access Roads scope of work as per the Guidelines for Scope of Services in respect of services for such work rendered by persons registered in terms of Construction Health and Safety Professionals Registered in terms of the Project and Construction Management Professions Act, 2000 (Act No. 48 of 2000).

Contract  
Part C3: Scope of Work  
Contract No.

C3-

C3.2  
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**C3.3 ENGINEERING****C3.3.1 Design Services and Activity MatrixWorks signed by, per design stage:**

(a)	Inception	Employer (Engineer)
(b)	Concept, feasibility and overall process	Employer (Engineer)
(c)	Basic engineering and detail layout to tender stage	Employer (Engineer)
(d)	Final design to approved for construction stage	Employer (Engineer)
(e)	Temporary works	Contractor
(f)	Information for preparation of "as built" drawings	Contractor
(g)	Preparation of as-built drawings and closeout	Employer (Engineer)

**C3.3.2 DRAWINGS**

The drawings listed below are provided and shall form part of the contract documentation. Additional or revised construction drawings will be issued to the Contractor by the Engineer/Employer on the commencement date and from time to time as required. See Volume 2 of the Bid Documentation pack.

Drawing No.	Title
300713-00-CI-DGA-0001-001	GENERAL ARRANGEMENT
300713-00-CI-DAL-0001-001	ROAD LAYOUT AND LONGITUDINAL SECTION SOUTH
300713-00-CI-DAL-0001-002	ROAD LAYOUT AND LONGITUDINAL SECTION NORTH SHEET 1 OF 3
300713-00-CI-DAL-0001-003	ROAD LAYOUT AND LONGITUDINAL SECTION NORTH SHEET 2 OF 3
300713-00-CI-DAL-0001-004	ROAD LAYOUT AND LONGITUDINAL SECTION NORTH SHEET 3 OF 3
300713-00-CI-DCR-0001-001	SOUTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 1 OF 2
300713-00-CI-DCR-0001-002	SOUTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 2 OF 2
300713-00-CI-DCR-0001-003	NORTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 1 OF 5
300713-00-CI-DCR-0001-004	NORTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 2 OF 5
300713-00-CI-DCR-0001-005	NORTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 3 OF 5
300713-00-CI-DCR-0001-006	NORTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 4 OF 5
300713-00-CI-DCR-0001-007	NORTH ROAD CROSS SECTIONS AT 10m INTERVALS SHEET 5 OF 5
300713-00-CI-DRD-0001-001	CONSTRUCTION DETAILS

Contract  
Part C3: Scope of Work  
Contract No.

C3-

C3.2  
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### **C3.4: PREFERENTIAL PROCUREMENT PROCEDURES**

#### **C3.4.1 Requirements**

This contract shall be procured in accordance with the preferential procurement policies and requirements of the Airports Company South Africa and the National Government. These documents shall be made available from the Employer on request.

**Contract  
Part C3: Scope of Work  
Contract No.**

**C3-**

**C3.2  
Engineering**

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### **C3.5: CONSTRUCTION**

#### **C3.4.1 Standard Specifications**

For the purposes of this Contract the latest issues of the following specifications shall be applicable:

- COLTO Standard Specifications for Road and Bridge Works for State Road Authorities B1300 CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS
- SANS 10396: 2003: Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures
- SANS 1914-1 to 6 (2002): Targeted Construction Procurement
- SANS 1921 - 1 (2004): Construction and Management Requirements for Works Contracts
- South African Road Traffic Signs Manual (May 2102)
- International Civil Aviation Organization – Aerodromes Volume 1 – Aerodrome Design and Operations

#### **STATUS**

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A (below) contains a general description of the works, the site and the requirements to be met. Part B (in Section C3.6) contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for road contracts, and they may therefore cover items not applicable to this particular contract.

#### **PART A: GENERAL**

##### **PS-1 GENERAL DESCRIPTION OF THE PROJECT**

Construction of emergency access roads at the northern and southern ends on the runway.

##### **PS-2 DESCRIPTION OF THE WORK**

This description is a broad outline of the contract works and does not limit the work to be executed by the Contractor in terms of the Contract. The quantities of some of the major items indicated in this section are indicative, not absolute, and are provided to define in general terms, the overall scope of the project.

Approximate quantities of each type of work to be carried out in accordance with the contract documents are listed in the Schedule of Quantities of this Document.

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

## 2.1 Location of the project

The project is situated within and adjacent to King Shaka International Airport. The airport is approximately 35km north of Durban In Kwa-Zulu Natal. The extents of the works is shown on the drawings.

## 2.2 The Site

The Contractor shall confine his site area to the alignments of the roads as shown on the drawings and to the areas immediately adjacent to those alignments. Haul roads or working space shall be adjacent to the alignments or other construction works, and shall only be wide enough to allow for reasonable vehicular access or operations to proceed. No other areas of the airport property, particularly within the airside may be disturbed or utilised for construction or storage activities without the written approval of the Airports management or his representative. The location for the site camp will be at a location to be agreed by the Employer.

## 2.3 Access to the Site

Access to the site shall be as follows:

- All airside works areas shall be accessed via the Gate that will be identified by ACSA.
- Southern area outside of airside – access is from Dube Boulevard
- Northern area outside of airside – access is from Watson Highway via an existing gravel road. This gravel road crosses property owned by Tongaat Hulett Developments (THD) and permission to use this road must be obtained from THD.

Any request to access or leave the airside via either of the Emergency Gates (1 and 3) shall be made timeously and in writing to the Airports management. It must be noted that these requests will only be granted in exceptional circumstances or if the nature of the works adjacent to the gates requires that vehicles or staff pass through the gate opening. The passing of objects through, under or over the fence or gates shall also be prohibited.

Access within the airside shall only done via the contractor's haul roads (see 2.2 above) or via the existing airport road network. No other road or access ways shall be constructed or permitted. Access to and use of public roads and areas outside of the airside shall be governed by the relevant Road Traffic ordinance of the relevant authorities or by limitations imposed by land owners. The operation of construction vehicles and plant on existing roads shall be limited to traffic with an axle load not exceeding that allowed by the Road Traffic Ordinance of the authority concerned, or any amendment thereof.

The Contractor, in making use of existing roads for hauling of materials to or from the site, shall be held responsible to clear any spillage caused by his activities on or near the roads by whatever means necessary, within one (1) days of such spillage occurring, except for

airside areas, where the spillage shall be cleared immediately. No additional payment will be made for the clearance of spillage and all relevant costs will be deemed to be covered under the relevant items.

#### 2.4 Nature of the work

The nature of the work included in this Contract is new surfaced roads, reinstatement of existing gravel roads and associated stormwater infrastructure. The work is to be undertaken by Contractors with the necessary expertise, resources and previous experience of constructing civil engineering works of a similar nature and order. The Contractor's previous experience shall also include the ability to work in restricted access areas and within restricted working hours.

#### 2.5 Detailed description of the project

The detailed description of the works shall be as per C3.1 above.

#### 2.6 Areas for Stockpiling or Spoiling of Material

Construction materials may be temporarily stockpiled in areas as agreed by the Engineer / Employer. Stockpiling of materials within the airside will be strictly controlled in accordance with the requirements of the Employer and air traffic control authorities. All materials stockpiles or storage areas shall be kept in a neat manner and shall be controlled / protected / contained from wind or rain, so as not to cause damage to adjacent areas or to reduce visibility. On completion of the works or when an area is no longer required for stockpiling, it shall be rehabilitated to its previous state to the satisfaction of the Engineer. The cost of rehabilitation of the areas shall be deemed to be included in the Contractor's rates for site establishment.

All spoil material shall be hauled to and disposed of at sites agreed by the Engineer and on completion of the work the sites are to be landscaped and vegetated.

#### 2.7 Liaison with Interested and Affected Parties

There are a number of interested and affected parties related to this project and liaison meetings will be held on a fortnightly basis to allow concerns to be raised / addressed and for information to be distributed to them. These meetings will be held at a venue to be agreed and the Contractor shall make himself or a representative available to attend these meetings.

The following is a list of persons or parties that have an interest in or are affected by this contract.

Dube Trade Port (adjacent land owner and developer)  
La Mercy Joint Venture (land owner and infrastructure manager) Tongaat Hulett's Development (adjacent land owner)  
Air Traffic Control Airside Safety Environmental Agencies

#### 2.8 Materials Information

A geotechnical investigation was undertaken in September and October 2018 and an electronic copy of the report shall be made available on request. It will also be issued as part of the contract documentation on award of this contract.

The materials encountered vary from silty and clayey sands to clay rich gravels. None are suitable for use as structural layerworks, but some could be used as subgrade material. Rock was not

encountered. It is likely that undercutting and replacement of the subgrade will be needed in some parts.

The majority of the finished road levels match the existing ground and with minimal fill areas, a significant amount of excess material will be generated. While some can be used in the small fill areas, it is assumed that most of the excavated material will need to be spoiled at a location to be agreed with the Employer.

The existing topsoil is to be stripped and either stockpiled for re-used or spoilt at a location to be agreed with the Employer. It is not envisaged that any of the excavated material will be suitable in sufficient quantities to be used as layerworks on this project. Therefore, all layerworks materials shall be obtained from a commercial source or alternative sources. The cost of sourcing / testing and transporting shall be included in the rates for the relevant items. Under no circumstances, is material to be borrowed from within the airport or adjacent properties without the express permission of the airport or adjacent landowners.

Where materials excavated from the site are to be re-used on the site, including cut to fill, it is the contractor's responsibility to ensure that the materials are suitable for the intended purpose. The cost of testing to ensure suitability shall be included in the rates tendered for the item.

## 2.9 Proposed Construction Programme

Tenderers must submit with their Tender comprehensive details of their proposed construction programme for the works.

The Tenderer shall state in the Appendix to the Form of Tender the time for completion. Within 7 days after awarding the contract, the Contractor shall submit his programme to the Engineer for approval, in the form of a bar chart, showing clearly in addition to the requirements of Clause 12 of the General Conditions of Contract:

- (a) the proposed rate of progress in order to complete the works within the required period as stated in the Appendix, stating the various activities and their duration for each element of the works in sufficient detail to be able to gauge construction progress;
- (b) the Contractor's plant commitment on the contract;
- (c) critical path activities;
- (d) his anticipated value of work (cash flow) to be done during each month;

When preparing a construction programme, the Contractor must note the following:

- (a) All work is to be completed within 8 (8) months, inclusive of any number of 'Construction Industry Holidays' in December and January which may occur, and all 'Special non-working days'
- (b) The time for achieving Practical Completion is 8 months. It must be noted that the 'Southern Road' is currently subject to an environmental approval process.
- (c) The environmental process has been completed on the site and the report shall be made available.

- (g) Allowance must be made for expected delays due to normal inclement weather as defined in PS 2.10.
- (h) Allowance must be made for 'Special non-working days' as described in C1.2: Contract Data Provided by the Employer.
- (i) Allowance for any time required for accommodation of vehicular or pedestrian traffic to comply with the stated requirements in terms of maintaining access
- (j) Allowance for any time required for accommodation of aircraft or airfield related operations and for working within an operational airport as described in Volume 3: Procedure Manual

#### 2.10 Climate

The rainfall records applicable in respect of this Contract are those recorded by the meteorological department at King Shaka International Airport and shall be those used for calculating the extension of the Time for Completion on account of abnormal rainfall.

Claims for extension of time shall be adjudicated in terms of Method (ii) (Critical-path method) as detailed in Clause 1215 in the Standard Specifications.

#### 2.11 Contract Participation Goals/ Transformation Specification

Airports Company South Africa aims to contract predominantly with Empowering Suppliers per the definition in P010 004P (ACSA internal transformation policy) were this relates to:

- an increase in local production,
- raw material beneficiation
- retention and employment of black people
- the transfer of skills to black owned EME's and QSE's.

##### 1. Contract Participation Goals (CPG)

CPG refers to the extent to which the contracted resources achieve predetermined transformation objectives, expressed as a percentage (%) of the contract value. Bidders are expected to achieve this target by the end of the project.

2. Bidders are to submit to submit a transformation proposal meeting the CPG target for all contracts over R1m including VAT.

3. CPG for this contract will be at 50% which will consist of the following B-BBEE elements:

- 3.1. Equity (Target 50%): 40% weighting.
- 3.2. Management (Target 50%): 40% weighting
- 3.3. Skills development: 5% weighting
- 3.4. Enterprise and supplier development: 10% weighting
- 3.5. Socio economic development: 5% weighting

4. To facilitate achievement of targets set out in 3, and transfer of skills, the tenderer must subcontract more than 30% of the contract value to CIDB Grade 2 to 6 CE contractors that are women owned, youth owned, PWPDO, or allocate to EME, QSE that are 51% black owned entities.

5. In the event that the Contractor/consultant fails to substantiate that any failure to achieve the contract participation goal relating to the granting of a preference was due to quantitative underruns, the elimination of items, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor/Consultant shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = (0,15 \times (D - Do) \times CA) / 100$$

- where D is the tendered contract participation goal percentage;
- Do is the contract participation goal which the Employer's representative, certifies based on the credits passed, as being achieved upon completion of the contract;
- CA is the contract amount.
- P is the monetary value of penalty payable No financial award is due for over performance on CPG.

6. Sample CPG template

Transformation score sheet (C3.7.3.3(6))						
<i>(Only Populate the white blocks)</i>						
Ownership target 51%	Method 1	% of contract executed by prime contractor	% Black Ownership	Total CPG Element	Weighting CPG	Overall CPG
	Method 2	% contract being executed by targeted JV Partners	% Black Ownership	[ ]	40%	
	Method 3	% on contract being executed by targeted subcontracts	% Black Ownership			
Management target 51	Method 1	% of contract executed by prime contractor	% Black Management	Total CPG Element	Weighting	
	Method 2	% contract being executed by targeted JV Partners	% Black Management	[ ]	40%	
	Method 3	% on contract being executed by targeted subcontracts	% Black Management			
Skills Development	Method 2	% contract being executed by targeted JV Partners	% Black Management	Total CPG Element	Weighting	
	Method 3	% on contract being executed by targeted subcontracts	% Black Management	[ ]	5%	
ESD	Method 2	% contract being executed by targeted JV Partners	% Black management	Total CPG Element	Weighting	
	Method 3	% on contract being executed by targeted subcontracts	% Black management	[ ]	10%	
SED	Method 2	% contract being executed by targeted JV Partners	% Black Management	Total CPG Element	Weighting	
	Method 3	% on contract being executed by targeted subcontracts	% Black management	[ ]	5%	
				<b>CPG Score:</b>		[ ]

2.12 Existing Services

Contractor is to prove, protect and maintain all existing services encountered on site for the duration of the contract and would be required to remove, realign or temporarily replace services as required under this contract.

In the case of specialist services (eg fibre optic or data) where the service owner is required to relocate their services, the contractor shall liaise with the service owner to determine the extents and timeframe of the relocation and to incorporate this information in his own programme and works methodology. The contractor may not refuse the service owner access to the site and shall provide



the service owner sufficient space to do the relocations in a safe and logical method. The programming of the relocations shall be negotiated between the contractor and service provider.

Where necessary, the relocation / protection of services shall be done by the contractor under the supervision of the service owner.

### 2.13 Security

The provision of security for the Contractor's Site Establishment shall be his own responsibility, and no claims for additional security measures taken during the currency of the contract will be considered.

It is the responsibility of the Contractor to provide adequate security for the material on site and the works. Together with good community liaison and involvement, it is possible to maintain the risk at an acceptable level and have a successful project.

### PS-3 ENVIRONMENTAL IMPACT CONTROL

Respect for the environment is important for this Contract. The environmental control of the site shall be governed by the Environmental Management Programme (EMPr) included in section C3.5 Management portion of this document, which provides inter alia, for:

- (i) The Contractor must make provision for the prevention of excessive erosion and siltation in the construction area and in particular on adjacent areas.
- (ii) Should excessive erosion and/or siltation take place outside the works area as a direct result of the Contractor's construction activities it will be the Contractor's responsibility to make good the erosion/siltation to the satisfaction of the landowner and the Engineer, all at the cost of the Contractor.
- (iii) No littering by construction workers shall be allowed. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the Engineer.
- (iv) Adequate provision shall be made for temporary toilet requirements in construction areas. Use of the veld for this purpose shall not be allowed under any circumstances.
- (v) Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants, such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate tailings, wash water, organic materials and bituminous products. In the event of spillage, prompt action shall be taken to clear the affected area. Emergency measures in the event of spillage must be set out and the responsible person made aware of the required action.
- (vi) Bituminous and/or other hazardous products shall not be spoiled on site and may only be disposed of in licensed, authorised disposal facilities.
- (vii) Control of invader species of plants.
- (viii) Clearing shall be limited to the road prism / works site and, where applicable, detours, which shall be sited in consultation with the Engineer and affected parties

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No separate payment will be made for observing these requirements as it is deemed to be included in the amount tendered for Item 13.01(c) but any avoidable noncompliance with these rules may be considered sufficient grounds for withholding payment of part or all of the amounts to be paid for the above item.

#### PS-4 CONTRACTOR'S CAMP SITE

Possible locations for the Contractor's camp site will be indicated at the site inspection.

The Contractor must take full cognizance of the regulations regarding the clearing of bush and felling of trees and no tree may be removed without the written permission of the Engineer and Employer. In establishing and maintaining the camp site, due cognizance is also to be taken of Section 1200 of the Standard Specifications.

The standard of the Contractor's camp, offices, accommodation, ablutions and other facilities must comply with the regulations of the relevant authority. Details of the facilities to be provided are to be submitted to the Engineer for approval.

The Contractor is to familiarize himself and comply with, all local by-laws and Government Regulations pertaining to the employment, transport and accommodation of labour.

#### PS-5 FACILITIES FOR THE ENGINEER

The facilities required by the Engineer are detailed in **C3.6** Particular Specifications of this document. The cost of maintenance and provision of services of these facilities shall be deemed to be included in the Contractor's Establishment and General Obligations payment items.

All quality control tests will be undertaken by a commercial laboratory. Payment for the tests requested by the Engineer shall be paid for by the Contractor who shall claim these amounts in the monthly progress payments.

#### PS-6 POWER SUPPLY AND OTHER SERVICES

The Contractor shall make his own arrangements for the supply of electricity and other services. No direct or additional payment shall be made for the provision of such services. The cost thereof shall be deemed to be included in the rates tendered for the various items of work for which these services are required or in the Contractor's Establishment and General Obligations payment items.

#### PS-7 RECORD DRAWINGS

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract. The true positions, invert levels and ground levels of all services exposed or encountered, as well as the cover levels, shall be indicated on the drawings.

Record drawings are to be completed as work progresses and will be signed at progress meetings. The completion certificate shall only be issued after the Engineer has received a properly marked up set of record drawings and a ground and services survey in a format to be agreed. The survey shall be based on the same datum and trigonometric points as the issued construction drawings.

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Should this aspect not be strictly adhered to, the Engineer may withhold payment of all related items and / or release of retention amounts until the Contractor complies with this clause. No separate payment has been allowed for this service, and all costs related thereto shall be deemed to be included in the either the related item or the Contractor's Establishment and General Obligations item.

#### PS-10 PROTECTION OF PRIVATE PROPERTY

The Contractor shall take all the necessary steps to protect private and airport property during construction. All fences, buildings, lean-tos, etc. shall be protected against damage that may arise as a result of the Contractor's operations on site. The Contractor shall bear the cost of the repair of any damage to any private property, damaged as a result of the Contractor's operations on site.

The Contractor shall also provide access to the existing dwellings / businesses at all times. Where it is necessary to restrict access, the contractor shall obtain written permission from residents / business owners describing the extents and duration of the restriction. Full access shall always be provided outside of working hours or on non-working days.

The contractor shall nominate a safety representative who shall be available at all times to deal with incidents or problems on the site, whether caused by the contractors works or not. The contact details of the representative shall be provided to the Employer, Engineer, local traffic / policing authorities and local community representatives. This requirement shall also apply should the contract extend across any site closure periods.

#### PS-11 COMMUNICATIONS EQUIPMENT

The Contractor is to arrange for his own telephone / cell phone / fax on site, which is to be made available to the Engineer or his representative for official purposes during working hours. All costs associated hereto shall be the responsibility of the Contractor.

- It must be noted that there are restrictions to the type and use of radio or communications systems in and around the airport precinct and the contractor is to obtain permission for the installation and use of these prior to use (Refer to Procedure Manual for Working on Airside in Volume 3 of these documentations)

#### PS-12 DEALING WITH WATER

The contractor shall be responsible for dealing with all water during the construction from whatever source, and the cost of all de-watering, unless otherwise itemised in the Schedule of quantities, shall be deemed to be included in the tender price.

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### **C3.6: MANAGEMENT**

The following shall be form part of the contract documentation and shall be adhered to for the duration of the contract and maintenance period.

These sections are bound separately in Volume 3 of the Contract Documentation.

C3.6.1 Environmental Management Programme (EMPr)

C3.6.2 Project Health and Safety Specification

C3.6.3 Procedure Manual for Working on Airside

The contractor is to note that these specifications may be updated or amended at any time and the latest version of the specifications shall be utilised at all times. The effect of the changes on program or costs, shall be agreed by the Contractor and Engineer at the time of implementation of any changes.

**C3.7: PARTICULAR SPECIFICATIONS**

**PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS**

In certain clauses in the Standard Specifications, allowance is made for a choice to be specified in the Project Specifications between alternative materials or methods of construction, and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this Contract are contained in this part of the Project Specifications. It also contains the necessary additional specifications required for this Contract.

The clauses and payment items dealt with in this part of the Project Specifications are numbered 'PS' with a number corresponding to the relevant clause or item number in the Standard Specifications.

New clauses and payment items not covered by clauses or items in the Standard Specifications have been included here and have also been designated with the prefix 'PS'. Such clauses and items have been given a new number following upon the last number used in the particular section referred to in the Standard Specifications.

COLTO Standard Specifications for Road and Bridge Works for State Road Authorities B1300  
CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS  
PS B13.01 Contractor's general obligations

Add the following:

The Contractor shall make available a meeting room for the regular progress or other meetings. The contractor and employer/engineer shall both have access to the meeting room at other times and the use of it shall be by mutual agreement prior to use. The room shall have a boardroom table with chairs for to accommodate 15 people. The cost of providing this shall be deemed to be included in the contractor's establishment costs.

Add the following:

The price tendered for the contractor's general obligations shall include for the cost and time required of induction training, issuing of permits and vehicle inspections. This shall also include for any re-issuing of permits or repeating of induction training should this be required. The indicative costs of training and permits is given in Volume 3 – Section C3.5.3 (Procedure Manual for Working on Airside).

Add the following new item:

Number	Item Description	Unit
PS B13.02	Occupational Health and Safety Act and Construction Obligations	
(a)	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Lump Sum
(b)	Submission of the Health & Safety File to the Employer complete, and to the satisfaction of the Employer	Lump Sum

(c) Time-related obligations for the updating and mending the risk assessments, the safe work procedures, the project H&S file and the H&S plan, and for full compliance with all H&S matters during construction of the works under the contract.

Payment of the rates tendered under this item shall for include full compensation for all the contractor's charges and obligations in respect of compliance with the relevant OHS Act and the Construction Regulations and in accordance with the Project Health and Safety Specification and the Procedure Manual for Working on Airside in Volume 3 of this documentation.

(i) The lump sum tendered under sub item (a) shall represent full compensation for the fixed part of the contractor's obligations, ie that part which is substantially fixed and is not a function of the time required for completion of the contract and includes, but not limited to the following:

- Preparation of risk assessments,
- Safe work procedures,
- Project Health and Safety file,
- Health and Safety plan, and
- Any other Health and Safety matters that the contractor deems necessary.

Payment shall only be made once the Employer or Engineer are satisfied that all the conditions have been put in place or approved.

(ii) The lump sum tendered under sub item (b) shall represent full compensation for the completing and checking of the Project Health and Safety file and handing over to the Employer on completion of the Works.

Payment shall only be made once the Employer or Engineer are satisfied that the file is complete and have acknowledged this in writing to the Contractor.

(iii) The tendered rate per month for sub item (c) represents full compensation for that part of the contractor's obligations which are mainly a function of time and includes, but not limited to, the following:

- Updating and amending
  - o The risk assessment,
  - o Safe work procedures,
  - o The Project Health and Safety file,
  - o The Health and Safety plan, and
- Full compliance with all Health and Safety matters during construction of the Works.
- Employment (or appointment) of a Safety Officer

The Safety Officer shall be available and contactable on a full-time basis to deal with any issues as they arise. The Safety Officer may have other duties on the project, but these duties shall not prohibit them from performing the requisite Health & Safety functions, as required, in a timeous and responsible way. The Safety Officer shall also attend all project and progress meetings.

Add the following new items:

Number	Item Description	Unit
PS B13.03	Location of Underground Services by Non-Destructive Means	
	(a) by Specialist Sub-contractor	Prov Sum

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

(b) Contractor's mark-up on (a) %

Sub items (a) is a Provisional Sum to be used to procure a specialist underground services subcontractor to do the work as described here. The amount paid from the Provisional Sum shall be as per the amount(s) invoiced by the sub-contractor(s). The main contractor will need to obtain at least two (3) quotes for the work. Work can only commence once the Employer has approved the quote and sub-contractor. The quotations obtained shall be deemed to include all necessary costs, permits, authorisations and compliance with the relevant OHSE conditions prevailing for this contract, for the subcontractor to access and work on the site.

Sub item (a) shall cover the work required to locate all existing underground services by non-destructive means and produce an electronic 3-D model of the services. The specification for the work, the area to be investigated and the deliverables shall be agreed by Employer (i) prior to any request for quotes being made. Prior to the appointment of the sub-contractor, the methods and equipment to be used / proposed by the sub-contractor shall be approved by ACSA and airport operational management so as to avoid any impact on navigational or operational installations

The unit of measure for sub-item (b) shall be the % and shall be a mark-up on the amounts invoiced for the work by the specialist sub-contractor. The rate tendered shall be deemed to include all charges and effort required by the main contractor to procure the sub-contractor (including obtaining quotations from 2 independent entities for each portion of the works), managing the process of access to the site by the subcontractor, supervision and administration of the work and payment on completion.

Further confirmation of the positions of the services as located by the sub-contractor shall be done by careful hand excavation as described elsewhere in this document. The locations of these excavations shall be agreed between the contractor and the employer and shall be paid elsewhere.

#### B1400 HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL

##### PS B14.01 Office and laboratory accommodation

Add the following

The office space for the Engineer shall comprise the following:

2No. adjacent offices, with a plan area of approximately 3.0m x 3.0m with 1 exterior door each and an interleading door, each with furniture fittings as listed in the Schedule of Quantities.

#### B1500 ACCOMMODATION OF TRAFFIC

##### PS B15.01 Accommodating traffic and maintaining temporary deviations

Add the following:

The rate tendered shall also include for the use of the contractor's own haul / access roads or works areas as temporary access routes by ACSA personnel or vehicles. In the event of an incident or emergency, these routes shall be made immediately available to ACSA emergency response vehicles and personnel.

#### B2200 PREFABRICATED CULVERTS

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Number	Item Description	Unit
PS B22.26	Hand excavation to determine the positions of existing services	m3

Add the following paragraph:

The work done under this item shall also cover the careful excavation to expose the existing layers at the edge of the runway. These existing layers are not to be disturbed without an instruction from the Engineer.

Add the following new item:

Number	Item Description	Unit
PS B22.29	Adjustments to existing stormwater infrastructure	
	(a) Convert existing stormwater catchpit to gr Cast-iron grid (Flat, 450 x 760 or similar) inlet with HD Lump Sum complete	id
	(b) Lower existing MH cover complete with (Type 2A or similar) new HD cast iron lid Lump Sum	new HD cast iron lid

These lump sum items cover the demolition and reconstruction of existing stormwater or services infrastructure necessary to adjust the manhole or catchpit to the new road alignment and levels at each location.

Payment of the rates tendered under this item shall for include full compensation for all the plant, labour and materials necessary to carry out the work, including demolition and

disposal, of the portion of the existing manhole or catchpit affected by the changes, new brickwork, backfill, provision and installation of reducer slabs, covers / grids and frames.

Demolition of the structure is to be done in such a way that the integrity of the portion to remain is not affected. No additional payment will be made if the structure needs to be replaced entirely if inappropriate demolition methods are used.

The portion of the manhole replaced shall be constructed according to the 'upper' portion of the manhole shown on the details drawings.

#### B3300 MASS EARTHWORKS

Add the following item:

Number	Item Description	Unit
PS B33.20	Temporary backfilling and excavation of works areas within restricted airside areas	m3

Contract  
Part C3: Scope of Work  
Contract No.

C3-

C3.2  
Engineering

Confidential



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The unit of measurement shall be the cubic meter of compacted earthworks material used to temporarily backfill an open excavation at the end of a shift, and then re-excavate it again when work commences in the area.

The rate tendered shall include for the hauling from stockpile, placing, compacting in layers not exceeding 200mm and trimming to match adjacent ground levels, re-excavating and hauling back to stockpile or to spoil as required. The compaction of the material shall be to match that of the adjacent undisturbed ground but shall not be less than 93% MoD AASHTO. The rate shall also include for cleaning of the underlying layer or component to allow for the next layer or component to be placed or installed.

The contractor shall be responsible for managing the stockpile of temporary backfill material for this purpose. No additional payment will be made for disposal of excess material after the completion of operations requiring the material.

This item shall not be used for the backfilling of road layer works areas or for the curing of cemented layers by covering (which is paid elsewhere), unless on the direct instruction on the Engineer or Employer. The contractor shall program the road layerworks operations within the restricted areas such the full depth of layerworks (excluding asphalt layers) is concluded in one work shift.

Number	Item Description	Unit
PS B33.21	Trimming of areas to create a temporary 1:100 deviation from grade batter within restricted airside areas	m2

The unit of measurement shall be the square meter of plan area trimmed to create a transition area from the top of completed layerworks to NGL at a maximum deviation from grade of 1:100.

The rate tendered shall include for the trimming, compaction of insitu material to 90% MoD AASHTO and disposal of excess material to stockpile or spoil. This trimming operation shall only be done on completion of the road layers and prior to the installation of the asphalt layers, where the maximum depth below NGL at road edge is approximately 120mm. The width of trimming on each side of the road shall then be approximately 12m.

The contractor shall be responsible for managing the stockpile of excess material. No additional payment will be made for disposal of excess material after the completion of operations requiring the material. This item shall only be paid once per location and re- trimming of areas or overlapping of trimmed areas shall not be considered for payment.

#### B3400 PAVEMENT LAYERS OF GRAVEL MATERIAL

Add the following item:

Number	Item Description	Unit
PS B34.14	Extra over item 33.10 for make up of deficiency or levelling of roadbed by addition of G5 material	m3

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

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The unit of measurement shall be the cubic meter of compacted G5 material used to make up any deficiency in road bed material or to aid in obtaining the correct levels in the road bend.

The tendered rate shall include full compensation for any additional work or procurement of material required to assist the achievement of the correct roadbed levels in a quick and efficient manner. This item shall only be applicable to the roadbed within the restricted zones and the maximum depth of material payable under this item shall be 100mm. Should additional material be required, the cost of this shall be to the contractor's account.

#### B3500 STABILISATION

Add the following item:

Number	Item Description	Unit
PS B35.14	Extra over item 35.05 for curing by covering with the temporary layer	m2

The unit of measurement shall be the square meter of completed cemented layer covered with G5 material and as specified in 35.05, except that the cover material shall be considered temporary.

The tendered rate shall include full compensation for any additional work or procurement of material required to place and spread the material and to remove it on completion of the curing process. It shall also cover the cost of cleaning of the covered layer on removal and the disposal of the cover material or re-use elsewhere on the project. The depth of the cover

material shall be a minimum of 100mm and shall be bladed and lightly compacted to form a smooth trafficable surface.

Add the following item:

Number	Item Description	Unit
PS B35.15	Trial sections for working in restricted zones	m

The unit of measurement shall be the meter length of completed trial section as described below.

The trial section shall be used to check and approve the contractor's methodology for construction of the layerworks in the restricted zones where there is a limit on the time allowed for completion of a section of road. The section shall comprise a full road width section of all excavation and layerworks but excluding the asphalt base and surfacing.

All references to a maximum of 300m of trial section shall be omitted and replaced with 'a maximum of 2 No trial sections of 30m each'.

The trial sections shall be conducted as follows:

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

Confidential

- Trial sections are to be done outside of the restricted zone areas to allow the contractor to achieve the required production rates and quality. This will also identify any shortcomings in their methodology prior to committing to working in the restricted zone.
- Should the trial sections be acceptable in terms of quality, then they can remain as part of the permanent work. Failing this, they are to be removed at the contractor's cost.
- 2No. trial sections are to be done.
  - o The first to be done in daylight which will allow for the methodology to be worked through.
  - o The second will be done at night to help identify particular issues related to working under artificial light conditions.
- The cost of these trial sections shall exclude all materials, plant, supervision, lighting etc and any other costs, and these costs shall be covered under the rates tendered for the items constructed.
- Payment will only be made for 2No trial sections. Should the contractor require additional trial sections in order to achieve the required rates of progress and quality (to the satisfaction of the engineer or ACSA), then they will be to the contractor's account.

Add the following item:

Number	Item Description	Unit
PS B35.16	Working in restricted zones	m

The unit of measurement shall be the meter length of completed road constructed within the restricted zone.

The rate tendered shall include for all additional costs related to working within the restricted zone that are not covered under other items. It shall be deemed as full compensation for all items and additional costs related to constructing layer works or asphalt layers in short sections during night work. It shall include for the provision of lighting, additional supervision and safety personnel / precautions etc. The costs of the road section, as if constructed under normal conditions, shall be paid elsewhere.

630m of the total sum of the road can be constructed during the day (unrestricted).

#### B5500 FENCING

Add the following new item:

Number	Item Description	Unit
PS B55.10	Fencing and gates by specialist fencing contractor	
	(a) Emergency Gate 1: Raise existing gate and adjacent fence panels by up to 200mm to match new road levels	
Prov Sum	(b) Realign existing security fencing and add new double leaf gate crossing the Northern Road	
Prov Sum	(c) Contractor's mark-up on (a) and (b)	%

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

Confidential

Sub items (a) and (b) are Provisional Sums to be used to procure a specialist fencing subcontractor to do the work as described here. The amount paid from the Provisional Sums shall be as per the amount(s) invoiced by the sub-contractor(s). The main contractor will need to obtain at least two (3) quotes for each portion of the work. Work can only commence once the Employer has approved the quote and sub-contractor. The quotations obtained shall be deemed to include all necessary costs, permits, authorisations and compliance with the relevant OHSE conditions prevailing for this contract, for the subcontractor to access and work on the site. The gate and locking mechanisms shall only be those approved by the Employer. Payment by the main contractor to the subcontractor shall only take place once the works have been completed to the satisfaction of the Employer.

Sub item (a) shall cover all the work required to raise Emergency Gate 1 (and adjacent fence panels if required) by an amount to be determined to accommodate the new final road levels. The works may require the installation of temporary fencing or measures to maintain the integrity of the airport security during the adjustments to the gate / fence. These measures are to be discussed and approved by the Employer and they shall be provided by the same specialist sub-contractor and included in the quotations.

Sub item (b) shall cover all the work required to install a new gate on the existing fence where it crosses the Northern Road. The realignment of the existing fence may also be

necessary. The works may require the installation of temporary fencing or measures to maintain the integrity of the airport security during the installation / realignment. These measures are to be discussed and approved by the Employer and they shall be provided by the same specialist sub-contractor and included in the quotations.

The unit of measure for sub-item (c) shall be the % and shall be a mark-up on the amounts invoiced for the work by the specialist fencing sub-contractor.

The rate tendered shall be deemed to include all charges and effort required by the main contractor to procure the sub-contractor (including obtaining quotations from 2 independent entities for each portion of the works), managing the process of access to the site by the subcontractor, supervision and administration of the work and payment on completion.

#### B5800 LANDSCAPING AND PLANTING PLANTS B5805 GRASSING

(c) Hydroseeding

Add the following:

During seeding, the seed mixture shall be regularly mixed by hand in order to prevent the separation of smaller and larger seeds in the mixture. After seeding, the soil surface shall be lightly raked parallel to the contours in order to cover the seed. During raking, care shall be taken to prevent the redistribution or removal of seed from any area. Seeding to comply with supplier's guidelines and all additional costs are deemed to be included in tendered rates.  
This includes shade netting at areas close to runway thresholds."

#### B5806 PLANTING AND MAINTAINING THE PLANTS

(a) Watering, weeding, mowing and replanting

Add the following to the second paragraph:

**Contract**  
**Part C3: Scope of Work**  
**Contract No.**

C3-

**C3.2**  
**Engineering**

Confidential

"The Contractor shall remain off newly grassed areas or areas that have been prepared for grassing. Any damages caused by the Contractor to newly grassed areas or areas that have been prepared for grassing shall be repaired to the satisfaction of the Engineer, at the Contractor's own expense."

(c) Maintenance period

Add the following before the first paragraph:

"In this subclause all reference to the maintenance period in respect of grass shall mutatis mutandis also apply to the maintenance of the shade netting required to protect the grass sods or newly planted hydroseed against the damage caused by jet blast. The maintenance period is also one (1) year and comprises the repair and securing of the netting as and when required by the Engineer. The Contractor may be required to remove the netting before the maintenance period has expired."

Add the following new item:

Number	Item Description	Unit
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PS B58.12	Installation of shade netting over newly planted areas	m <sup>2</sup>
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The unit of measurement shall be the square meter of shade netting installed and as instructed by the Employer.

The tendered rate shall include full compensation for provision, installation and maintenance of the shade netting in the the areas specified. The shade netting shall be an HDPE knitted substrate with 80% coverage and coloured green. The rate shall also include for the staking of the netting to the ground using short frangible stakes on a grid with an approximate spacing of 1.0m. The use of stones, poles or similar heavy items to retain the netting in place will not be permitted.

The method of installation of the netting is to be agreed with the Employer prior commencing with installation. The type / shape of stake used shall be such that the shade netting shall remain in place after being subject to strong winds or jet-blast

Add the following new item:

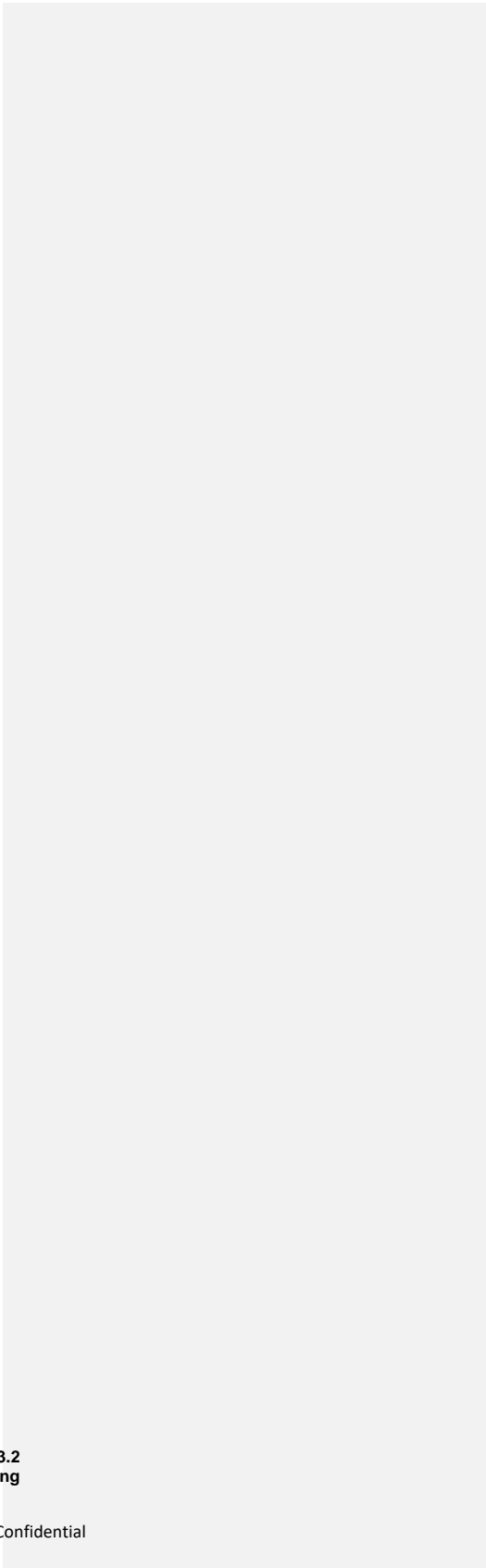
Number	Item Description	Unit
PS B84.01	(a) Marking of obstacles in accordance with ICAO requirements	m <sup>2</sup>

The unit of measurement shall be the square meter of area marked as specified. The items to be marked and extents of the marking shall be agreed with the Employer. The COLTO specification 8409 for PAINTING CONCRETE shall apply here.

The tendered rate shall cover the full compensation for the marking of the area, including cleaning / preparation of surface of the surface for painting, application of sealer, primer, undercoat and 2 finishing coats in the colours specified.

The finishing coats shall be in alternating red and white bands as specified in ICAO Annex 14 Aerodromes. The angle, direction and width of the colour bands shall be agreed by the Employer prior to application.

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**Contract  
Part C3: Scope of Work  
Contract No.**

C3-

**C3.2  
Engineering**

Confidential

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**PART C4: SITE INFORMATION**

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**C4.1 Location of The Project**

The site is situated at the King Shaka International Airport, approximately 35km north of Durban. Access to the airport is from the N2 (or R102) and M65 (Dube Boulevard). Access to the airside portion of the works areas is restricted and a permit system is in operation.

