AIRPORTS COMPANY SOUTH AFRICA

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

PROJECT NAME AND NUMBER: APPOINTMENT OF A CONTRACTOR FOR THE REPLACEMENT OF A3 AND A4 PASSENGER LOADING BRIDGES TO FABRICATE REMOVE AND COMISSION THE FOR A PERIOD OF 36 MONTHS AT CAPE TOWN INTERNATIONAL AIRPORT AIRBRIDGE A3 AND A4 REPLACEMENT AT CAPE TOWN INTERNATIONAL AIRPORT.

NEC 3: ENGINEERING AND CONSTRUCTION CONTRACT (ECC)

Between **AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED**

Applicable at: Cape Town International Airport

(Registration Number: 1993/004149/30)

and _____

(Registration Number : _____)

for **AIRBRIDGE A3 AND A4 REPLACEMENT AT CAPE TOWN INTERNATIONAL AIRPORT,**

Contents: **No of pages**

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:
A contractor for the assessment, safely decommissioning/demolish and removal from site (and disposal of the old loading bridge and tunnel components), design, construction of the fixed tunnel, installation of the movable bridge, testing, commissioning of new passenger loading bridges, at Cape Town International Airport. During the defect's liability period, the contractor shall be responsible for all required maintenance/ servicing and inspections at Cape T own 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).

(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:		
Name & signature of witness	*(Insert name and address of organisation)*	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		
for 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.

	For the Employer	**For the Bidder**
Signature (s)		
Name (s)		
Capacity		
Name and Address	**Airports Company South Africa SOC Limited** Airports Company South Africa, Cape town International Airport Administration office Southern Office Block South Africa 7525	
Name & Signature of witness	*(Insert name and address of organisation)*	*(Insert name and address of organisation)*

Date .....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	**B: Priced contract with bill of quantities**
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	**X2 Changes in the law** **X7: Delay damages** **X15: Limitation of *Contractor's* liability for design to reasonable skill and care** **X16: Retention** **X18: Limitation of liability** **Z: *Additional conditions of contract***
		of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)
10.1	The *Employer* is (Name):	Airports Company South Africa SOC Limited (reg. no: 1993/004149/06),
	Address Telephone	Airports Company South Africa, Cape town International Airport Administration office Southern Office Block South Africa 7525 021 937 1200
10.1	The *Project Manager* is: (Name)	TBC
	Address	

	Tel	
	Fax	
	e-mail	
10.1	The *Supervisor* is: (Name)	TBC
	Address	TBC
	Tel No.	TBC
	Fax No.	TBC
	e-mail	TBC
11.2(13)	The *works* are	**Assessment, safely decommissioning/demolish and removal from site (and disposal of the old loading bridge and tunnel components), design, construction of the fixed tunnel, installation of the movable bridge, testing, commissioning of new passenger loading bridges, at Cape Town International Airport. During the defect's liability period, the contractor shall be responsible for all required maintenance/ servicing and inspections at Cape T own International Airport.** During the defect's liability period, the contractor shall be responsible for all required maintenance/ servicing and inspections. Refer to Part C3 - Scope of Works, for detailed project scope.
11.2(14)	The following matters shall be included in the Risk Register	• Unknown Services • Availability and accuracy of As Built information Access to Site (approvals and permits, police clearance required) • Tie-in with existing infrastructure. • Security and guarantee approvals • Live Operational environment • Weather conditions • Statutory approvals • Site Constraints and Constructability • The Method Statement • Notification of compensation events and ACSA approvals • Limited project budget • Payment delays • Procurement of material or sub-contractors • Refer to Annexure C5.2 for more risks • Night works
11.2(15)	The *boundaries of the site* are	Cape Town International Airport – Airside, Restricted areas, Landside (Electrical Complex, Terminal Building & Nearby Operational bridges)
11.2(16)	The Site Information is in	Part C4: Site Information
11.2(19)	The Works Information is in	Part C3: Scope of Work and all documents and drawings to which it makes reference to.

12.2	The *law of the contract* is the law of	the Republic of South Africa		
13.1	The *language of this contract* is	English		
13.3	The *period for reply* is	Two (2) weeks		
2	**The *Contractor's* main responsibilities**	Data required by this section of the core clauses is provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.		
3	**Time**			
11.2(3)	The *completion date* for the whole of the *works* is	3 years after contract start date		
11.2(9)	The *key date*s and the *condition*s to be met are:	***Condition* to be met**		***key date***
		1	Start Date	3 weeks after contract award
		2	Submission of Programme	2 weeks after contract start date
		3	Programme Updates	At intervals no longer than 4 weeks
30.1	The *access dates* are:	**Part of the Site**		**Date**
		1	Electrical Complex	Contract start date
		2	Airside	Contract start date
		3	Restricted areas	Contract start date
31.1	(a) The Contractor submits a first (preliminary) programme for acceptance within	**Two (2) weeks after the contraction start date**		
31.2	The *starting date* is	**3 weeks after contract award**		
32.2	The *Contractor* submits revised programmes at intervals no longer than	**4 weeks.**		
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.			
4	**Testing and Defects**			
42.2	The *defects date* is	52 weeks (12 months) after Completion of the whole of the *works*.		
43.2	The *defect correction period* is	4 (Four) weeks		
47	The Contractor submits a quality plan for acceptance within:	**Two (2) weeks after the Contract Start Date.**		
5	**Payment**			

50.1	The *assessment interval* is	Between the 15th and 22nd day of each successive month.
51.1	The *currency of this contract* is the	South African Rand**.**
51.2	The period within which payments are made is	Four (4) weeks.
51.4	The *interest rate* is	The prime lending rate of Nedbank at any given time.
6	**Compensation events**	
60.1(13)	The place where weather is to be recorded is:	At the Construction Site Office and the records to be kept on site in a file clearly marked for this purpose
	The *weather measurements* to be recorded for each calendar month are,	the cumulative rainfall (mm) the number of days with rainfall greater than 10 mm the number of days with minimum air temperature of less than 0 degrees Celsius the number of days with snow lying at 09:00 hours South African Time and these measurements:
	The *weather measurements* are supplied by	South African Weather Service
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	Cape Town International Airport
	and which are available from:	the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer*
60.1(13)	Assumed values for the ten-year return *weather data* for each *weather measurement* for each calendar month are:	As stated in Annexure C1.A to this Contract Data provided by the *Employer*.
7	**Title**	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**Refer to ACSA insurance clauses in Annexure C1.D.**
81.1	The Contractor's Risk	**Add:** *Definition of Force Majeure -* *The following additional conditions must satisfied:* *(1) The Contractor has engaged with the persons responsible for the riot, commotion, disorder, strike or lockout; has met with the persons or leaders; and has recorded the persons or leaders details, their grievances, the organisations involved, all threats*

		made; and has requested the persons or leaders to cease all unlawful conduct; and *(2) The Contractor has obtained proof of the riot, commotion, disorder, strike or lockout, and of any unlawful conduct; and* *(3) The Contractor has reported all threats and unlawful conduct to the South African Police Service; and* *(4) The Contractor has brought an urgent application to the court on an ex parte basis that correctly identify the respondents and define the unlawful conduct to be interdicted; and* *(5) The Contractor has ensured that the court order is enforced.*
84.1	The *Employer* provides these insurances from the Insurance Table	Refer Annexure C1.D to this Contract Data provided by the Employer.
84.1	The *Employer* provides these additional insurances	Refer to Insurance Schedule in Annexure C1.D provided by the Employer.
84.1	The *Contractor* provides these additional insurances	Refer to Insurance Schedule in Annexure C1.D to this Contract Data provided by the Employer.
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the *works*, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract for any one event is	Refer to Insurance Schedule in Annexure C1.D to this Contract Data provided by the Employer.
84.2	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.
9	**Termination**	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	**Data for main Option clause**	
A	**Priced contract with Price List**	
20.5	The contractor prepares forecasts of **4 weeks.** The final total of the Prices for the whole of the services at intervals of no longer than	
11	**Data for Option W1**	
W1.1	The *Adjudicator* is (Name)	The person appointed jointly by the parties from the list of adjudicators contained below.
	Address	TBC

	Tel No.	TBC
	Fax No.	TBC
	e-mail	TBC
W1.2(3)	The *Adjudicator nominating body* is:	The Chairman of the Johannesburg Society of Advocates, or his successor or his nominee.
W1.4(2)	The *tribunal* is:	Arbitration.
W1.4(5)	The *arbitration procedure* is	The latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	George, South Africa
	The person or organisation who shall choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
12	**Data for secondary Option clauses**	
X1	**Price adjustment for inflation**	
X1.1(a)	The *base date* for indices is	The starting date of the contract.
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	The full value of year 1 pricing in the contract
X2	**Changes in the law**	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
X7	**Delay damages (but not if Option X5 is also used)**	
X7.1	Delay damages for Completion of the whole of the *works* are	0.05% per day up to the maximum of 10% of the Contract value.
X13	**Performance bond**	
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 the contract. Refer to C1.C
X15	**Limitation of the *Contractor*'s liability for his design to reasonable skill & care**	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
X16	**Retention (not used with Option F)**	
X16.1	The *retention percentage* is	5% of the Contract value, 2.5% shall be released at Completion of the works and the remaining 2.5% shall be released after the Defects Period.
X18	**Limitation of liability**	

X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	Refer to insurance clauses in Annexure C1.D, ACSA Insurance Clauses.
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	Refer to insurance clauses in Annexure C1.D, ACSA Insurance Clauses.
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	As per professional indemnity clause in Annexure C1.D, ACSA Insurance Clauses.
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 total of the Prices other than for the additional excluded matters. The *Contractor's* total liability for the additional excluded matters is not limited. The additional excluded matters are amounts for which the *Contractor* is liable under this contract for • Defects due to his design which arise before the Defects Certificate is issued, • Defects due to off-site manufacture and fabrication, • 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.
X18.5	The *end of liability date* is	52 weeks after Completion of Works.
Z	**The *Additional conditions of contract* are**	Z1 to Z24 below.

AMENDMENTS TO THE CORE CLAUSES

Z1 **Interpretation and 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.

Z1.2 **Add the following as a new core clause 12.5:**

Z1.2.1 In this contract:

Z1.2.1.1 references to any Party to the Contract include its successors or permitted assigns;

Z1.2.1.2 references to the Contractor include the obligations of its personnel;

Z1.2.1.3 the references to the provisions of any law include such provisions as amended, re-enacted or consolidated from time to time in so far as such amendment, re-enactment or consolidation applies or can apply to any works under this Contract;

Z1.2.1.4 references to this Contract and any deed, Contract or instrument are deemed to include references to this Contract or such other deed, agreement or instrument as amended, novated, supplemented, varied or replaced from time to time;

Z1.2.1.5 references to a "person" include a natural person, company or any other artificial person or other corporate entity, a charity, trust, partnership, joint venture, syndicate, or any other association of persons;

Z1.2.1.6 references to “month” means a calendar month;

Z1.2.1.7 headings are for convenience only and are not taken into consideration in the interpretation of the Contract;

Z1.2.1.8 where any number of days is prescribed, those days are reckoned exclusively of the first and inclusively of the last day unless the last day falls on a day that is not a working day, in which event the last day is the next succeeding working day;

Z1.2.1.9 any provision in Contract that is or may become illegal, invalid or unenforceable in any jurisdiction is ineffective to the extent of such prohibition or unenforceability in such jurisdiction and is treated as severed from the balance of Contract in such jurisdiction, without invalidating the remaining provisions of Contract in such jurisdiction or affecting it in any other jurisdiction;

Z1.2.1.10 references to any amount means that amount exclusive of VAT, unless the amount expressly includes VAT;

Z1.2.1.11 the rule of construction that if general words or terms are used in association with specific words or terms that are a species of a particular genus or class, the meaning of the general words or terms shall be restricted to that same class shall not apply, and whenever the word "including" is used followed by specific examples, such examples shall not be interpreted so as to limit the meaning of any word or term to the same genus or class as the examples given;

Z1.2.1.12 the rule of construction that the Contract is interpreted against or to the disadvantage of the party responsible for the drafting or preparation of Contract does not apply;

Z1.2.1.13 words and abbreviations that have well known technical or trade meanings are used in the Contract in accordance with such recognized meanings;

Z1.2.1.14 references to a "*subsidiary*" or a "*holding company*" is references to a direct or indirect subsidiary or holding company as defined in the law of the jurisdiction of the place of incorporation of the company that has a subsidiary or holding company and "affiliate" is any company that is under common control with such subsidiary or holding company;

Z1.2.1.15 time is of the essence in the performance of the parties’ respective obligations.

Z2 **The Project Manager and Supervisor: add the following at the end of core clause 14.2:**

Z2.1 The Project Manager and the Supervisor may take an action which they have delegated.

Z3 **Early Warning: add the following at the end of core clause 16.2:**

Z3.1 The Contractor ensures that a subcontractor attends risk reduction meetings if its attendance would assist in deciding the actions to be taken.

Z4 **Providing the Works: Delete core clause 20.1 and replace with the following:**

Z4.1 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 as stated in the Works Information, and if no such purposes is stated, the ordinary purpose of the Works.

Z5 **Subcontracting:**

Z5.1 **The following clause is added as a new core clause 26.4:** “Within 5 days of request by the *Project*

Manager, the Contractor provides proof to the *Project Manager* that the Contractor's payment obligations towards its Subcontractors have been discharged. Failure by the Contractor to provide such proof to the satisfaction of the *Project Manager* entitles the *Employer* to instruct the *Project Manager* to certify payment directly to any such Subcontractor and the *Contractor* shall have no recourse to recover such amounts from the *Employer*. Such direct payment do not create privity of contract between the Employer and such Subcontractor. The *Employer* may recover such direct payment from the *Contractor*."

Z6 **Other responsibilities: add the following at the end of core clause 27:**

Z6.1 The *Contractor* has 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.

Z6.2 The *Contractor* is 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* are rectified by the *Contractor* at the *Contractor's* own costs.

Z7 **Acceleration: add the following new provisions at the end of core clause 36:**

Z7.1 The Project Manager's reply is either:

Z7.1.1 A notification that the quotation is accepted, in which case, the *Project Manager* changes the Prices, Completion Date and Key Dates and accepts the revised programme; or

Z7.1.2 A notification that the quotation is not accepted and that the Prices, Completion Date and Key Dates are not changed.

Z8 **Extending the defects date: add the following as a new core clause 46:**

Z8.1 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.*

Z8.2 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.

Z8.3 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.

Z9 **Quality Management System: add the following as a new core clause 47:**

Z9.1 The *Contractor* implements and maintains a quality management system with the requirements stated in the Works Information.

Z9.2 Within the period stated in the Contract Data, the *Contractor* provides the *Project Manager* with a quality plan for acceptance. A reason for not accepting the quality plan is that it does not allow for the *Contractor* to Provide the Works.

Z9.3 If any changes are made to the quality plan, the *Contractor* provides the *Project Manager* with the changes quality plan for acceptance.

Z9.4 The *Project Manager* may instruct the *Contractor* to correct a failure to comply with the quality plan. This instruction is not a compensation event.

Z10 **Assessing the amount due:**

Z10.1 **Delete the second bullet point of core clause 50.1 and replace with the following:** "within thirteen weeks of termination of this Contract"

Z11 **Final assessment: add the following as a new core clause 53:**

Z11.1 The *Project Manager* makes a final assessment and certifies final payment in accordance with the Contract. The final payment is made within four weeks of the assessment.

Z11.2 An assessment of the final amount due is conclusive evidence of the final amount due under or in connection with the Contract, unless a Party raises a dispute in relation to the assessment of the final amount due.

Z11.3 The assessment of the final amount due is changed to include any agreement the Parties reached and/or a decision of the Adjudicator which has not been referred to the tribunal within four weeks of that decision. The changed assessment becomes conclusive evidence of the final amount due under or in connection with the Contract.

Z12 Notifying compensation events:

Z12.1 Delete the last sentence in core clause 61.3 and replace with the following: "If the *Contractor* does not notify a compensation event within four weeks of becoming aware of the event, he is not entitled to a change in the Prices, the Completion date or a Key Date and the *Employer* is absolved from all liability in relation to such event."

Z13 Assessing compensation events:

Z13.1 The following is added at the end of core clause 63.4: "the *Contractor* shall only be entitled to changes to the Prices, the Completion Date and/or the Key Date if the compensation event affects the critical path."

Z14 Termination

Z14.1 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 recue proceedings".

AMENDMENTS TO THE SECONDARY OPTION CLAUSES

Z15 Changes in Law: Add the following clause to secondary option X2 as X2.2:

Z15.1 A change in law is defined as:

Z15.1.1 the adoption, enactment, promulgation, coming into effect, repeal, amendment, reinterpretation, change in application or other modification after the Contract Date of any law, excluding (i) the enactment of any bill inside the country, but only if such bill is enacted without any material changes being made to the contents of such bill from the form published in the Gazette (as defined in the Interpretation Act, 1957) as at the Contract Date, and (ii) any such modification in law relating to any taxes, charges, imposts, duties, levies or deductions that are assessed in relation to a person's income

Z15.1.2 any permit being terminated, withdrawn, amended, modified or replaced, other than (i) in accordance with the terms upon which it was originally granted, (ii) as a result of the failure by the *Contractor* to comply with any condition set out therein, or (iii) as a result of any act or omission of the *Contractor*, any Subcontractor or any affiliate to the *Contractor*.

Z16. Delay damages: add the following to secondary Option X7 (if applicable in this contract)

Z16.1 If the amount due for the *Contractor*'s payment of delay damages reaches the limits stated in this Contract Data for Option X7, the *Employer* may, at its sole discretion, terminate the *Contractor*'s obligation to Provide the Works.

Z16.2 If the *Employer* terminates in terms of this clause, the procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table under core Clause 90.2.

Z17 Performance Bond

Z17.1 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 or insurer 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 C1.C of this Contract Data.

Z17.2 **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

Z18 **Limitation of liability: Insert the following new clause as Option X18.6:**

Z18.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (Nil).

Z18.2 Notwithstanding any other clause in this contract, any proceeds received from the security bonds and guarantees provided by the *Contractor* in terms of this Contract and 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.

ADDITIONAL Z CLAUSES

Z19 **Cession, delegation and assignment**

Z19.1 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*.

Z19.2 The *Employer* may, on written notice to the *Contractor*, cede and delegate its rights and obligations under this contract to any person or entity.

Z20 **Joint and several liability**

Z20.1 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.

Z20.2 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.

Z20.3 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*.

Z21 **Ethics**

Z21.1 The *Contractor* undertakes:

Z21.1.1 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;

Z21.1.2 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.

Z21.2 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.

Z21.3 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.

Z22 Confidentiality

Z22.1 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.

Z22.2 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*.

Z22.3 This undertaking shall not apply to –

Z22.3.1 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;

Z22.3.2 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 shallbe afforded to the information so disclosed;

Z22.3.3 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);

Z22.4 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*.

Z22.5 The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

Z23 Liens and Encumbrances

Z23.1 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.

Z24 Intellectual Property

Z24.1 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.

Z24.2 IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *works.*

Z24.3 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.

Z24.4 The written approval of the *Contractor* is to be obtained before the *Contractor*'s IP made available to any third party which approval shallnot 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.

Z24.5 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:

Z24.5.1 the *Contractor's* design, manufacture, construction or execution of the Works;

Z24.5.2 the use of the *Contractor's* Equipment, or

Z24.5.3 the proper use of the Works.

Z24.6 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.

Annexure C1.A: If any one of these *weather measurements* recorded within a calendar month, before the Completion Date for the whole of the *works* and at the place stated in this Contract Data is shown to be more adverse than the amount stated below then the *Contractor* may notify a compensation event.

	Weather measurement				
Month	Cumulative rainfall (mm) *	Number of days with rain more than 10mm *	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT	[Other measurements if applicable]
January	**79**	**2**	**0**	**0**	
February	**60**	**2**	**0**	**0**	
March	**49**	**3**	**0**	**0**	
April	**47**	**4**	**0**	**0**	
May	**27**	**3**	**0**	**0**	
June	**40**	**2**	**0**	**0**	
July	**43**	**3**	**0**	**0**	
August	**55**	**4**	**0**	**0**	
September	**61**	**4**	**0**	**0**	
October	**77**	**4**	**0**	**0**	
November	**75**	**5**	**0**	**0**	
December	**45**	**3**	**0**	**0**	

* Typical / notional values have been entered for tendering purposes, but the actual one-in-ten-year return statistical data has been requested from Weather SA and shall be made available to all bidders if received before the close of queries or to the successful bidder upon award.

Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event.

Annexure C1.B: ACSA Panel of Adjudicators

One of the following adjudicators shall be selected by the referring party as and when a dispute arises. This panel is valid for a period of three years, commencing on 1 May 2020.

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

Annexure C1.C: Form of Guarantee (Pro forma Security Bonds and Guarantee)

Pro forma Performance Bond

For use with the NEC3 Engineering and Construction Contract (April 2013)

The Airports Company South Africa SOC Limited

O.R. Tambo International Airport, The Maples, 24 Johnson Road, Bedfordview 2008.

Guarantor's reference No.

Date:

Dear Sirs,

Performance Bond – Demand Guarantee for [insert name of *Contractor*]
required in terms of contract [insert *Contractor's* contract reference number or title]

1. In this Guarantee the following words and expressions shall have the following meanings:-

1.1	"**Guarantor**"	means **[insert]**
1.2	"**Guarantor's Address**"	means**[insert]**
1.3	"**Contract**" means	means the construction contract entered into between the Employer and the Contractor (Contract Reference No._____ and such amendments or additions to the Contract as may be agreed in writing between the parties.
1.4	"**Contractor**"	means **[insert]**
1.5	"**Employer**"	means the Airports Company South Africa SOC Limited, a company registered in accordance with the laws of the South Africa
1.6	"**Expiry Date**"	means the earlier of • the date that the Bank receives a notice from the Employer stating that all amounts due from the Contractor as certified in terms of the contract have been received by the Employer and that the Contractor has fulfilled all his obligations under the Contract, or • the date that the Bank issues a replacement Bond for such lesser or higher amount as may be required by the Employer.
1.7	"**Guaranteed Sum**"	means **[insert]**
1.8	"**Works**"	means [insert]

2. The Guarantor's liability shall be limited to the Guaranteed Amount.

3. The Guarantor's period of liability shall be from and including the date of issue of this Guarantee and up to and including the Expiry Date or the date of payment in full of the Guaranteed Amount, whichever occurs

first. The Project Manager and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

4. The Guarantor hereby acknowledges that:

   a. any reference in this Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship; and

   b. its obligation under this Guarantee is restricted to the payment of money.

5. The Guarantor hereby undertakes to pay the Employer any sum or sums not exceeding the Guarantee Amount in total, upon receipt of a written demand delivered to the Guarantor's Address, stating that the Contractor is in breach of its obligations under the Contract (without being required to prove the nature of the breach and the amount claimed. The written demand shall be signed by the Employer and be accompanied by the original Guarantee.

6. Payment by the Guarantor, in terms of this Guarantee, shall be made within seven (7) calendar days upon receipt of the Employer's written demand to the Guarantor.

7. The obligations under this Guarantee constitute direct primary, irrevocable and unconditional obligations, do not require any previous notice to or claim against the Contractor, and shall not in any way be released or discharged or otherwise absolved of liability hereunder by reason of any arrangement or change in relationship made between the Contractor and the Employer and/or between the Guarantor and Contractor; nor any alteration in the obligations undertaken by the Contractor or in the terms of the Contract; nor any indulgence, failure, delay by the Employer as to any matter; nor any dissolution or liquidation or such other analogous event of the Contractor (whether or not the Guarantor has notice thereof).

8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

9. All payments made by Guarantor shall be due and payable in the amount specified in any payment demand made in respect hereof by the Employer and shall be made free and clear of and without any deduction for or on account of any tax or future taxes, levies, imposts, duties, charges, fees, set off, counterclaims, deductions or withholdings of any nature whatsoever and by whomever imposed. All charges of the Guarantor related to the issuance or performance of this Guarantee (including, but not limited to, the negotiation, payment, extension or transfer hereof) shall be borne by the Contractor and under no circumstances shall be charged to the Employer by the Guarantor.

10. This Guarantee shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the High Court of the Republic of South Africa.

11. This Guarantee, with the required demand notice, shall be regarded as a liquid document for the purposes of obtaining a court order.

12. The Guarantor chooses as its *domicilium citandi et executandi* for all purposes in connection with this Guarantee at the Guarantor's Address.

13. If at any time any one or more of the provisions of this Guarantee is or becomes illegal, invalid or otherwise unenforceable in any respect neither the legality, validity or enforceability of the remaining provisions of this Guarantee, nor the legality, validity or enforceability of such provision, under the law shall in any way be affected or impaired as a result.

SIGNED at _____on _____Day of_____ 202__

For and on behalf of the **GUARANTOR**, duly authorised and warranting such authority

Full Name: _____

Capacity: _____

Witness: _____

[Insert Guarantor's stamp]

Annexure C1.D: ACSA Insurance Clauses

INSURANCE CLAUSES FOR AIRSIDE CONSTRUCTION CONTRACTS WHERE THE AWARDED CONTRACT VALUE DOES NOT EXCEED R150 MILLION, AND THE CONSTRUCTION PERIOD DOES NOT EXCEED 36 MONTHS, AND THE DEFECTS LIABILITY PERIOD DOES NOT EXCEED 24 MONTHS

Each Party shall be responsible for effecting and maintaining the relevant insurances as specified below and to the extent relevant to the Contract.

1. Insurance Effected by the Employer (Principle Controlled Insurance ("PCI"))

1.1 Notwithstanding anything elsewhere contained in this Contract and without limiting the obligations, liabilities or responsibilities of the Contractor in anyway whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances) the **Employer** shall effect and maintain for the duration of the construction and maintenance periods of the Contract - as appropriate in the joint names of the Employer, the Contractor and where relevant Sub-Contractors the following insurances which are subject to the terms, limits, exceptions and conditions of the Policy:

a) Contract Works/Contractors Public Liability/ Removal Of Lateral Support Liability

Section 1 Of The Policy – Contract Works

Contract Works Insurance for the full value of the Works to provide cover against accidental physical loss of or damage to the Works, Temporary Works and materials intended for incorporation in the Works all being the subject matter of this Contract including to the extent provided for in the policy whilst in transit or temporarily stored at any premises en route to or from the Site (other than where this is a continuation of Marine Transit) within the territorial limits of the policy.

This insurance may specifically exclude any cost necessary to replace or rectify any of the property insured, which is in a defective condition due to defect in design, plan specification, material or workmanship.

This insurance contains the following limitations and warrantees ;

Open Trench Limitation

In respect of loss or damage to open trenches and pipes, conduits or cables laid therein, caused directly or indirectly by rain, inundation or flood, Insurers liability shall be limited in respect of the aggregate length of open trenches at any one time to 2,500 meters.

Exposed Layer Works (applicable to works involving paving, roadways, bulk earthworks and runways and taxiways)

In respect of loss or damage to Exposed Layer Works relating to paving, roadways and runways (including taxiways) caused directly or indirectly by rain, inundation or flood, Insurers liability shall be limited in respect of the aggregate length of Exposed Layer Works at any one time to 2,500 meters.

Section II of the Policy – Contractors Public Liability

Public Liability Insurance which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising from the execution of the Contract with a limit of indemnity of **R100,000,000** in respect of any one occurrence or series of occurrences consequent on or attributable to one source or original cause.

Section III of the Policy – Removal Of Lateral Support Liability

Removal Of Lateral Support Liability which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising out of or in connection with shock or vibration or the removal or weakening of or interference with support to property in the vicinity of the Contract Site and arising out of or in connection with the Insured Contract (but not in respect of tunneling works) and occurring during the Period of Insurance.

The Limit of Indemnity being limited to R50,000,000 attributable to one source or original cause.

b) Contract Works SASRIA – Providing physical loss of or damage to the Works, Temporary Works and materials intended for incorporation in the Works as covered by the underlying Contract Works policy as noted in (a) above due to perils as covered in terms of the SASRIA Contract Works wording as issued by SASRIA SOC.

The Contract Works SASRIA cover excludes consequential or indirect loss or damage of any kind or description whatsoever.

The SASRIA Contract Works policy is limited to **R500,000,000 (Incl VAT)** in the aggregate during the policy period of insurance.

The Contract Works SASRIA policy wording can be obtained from the SASRIA website http://www.sasria.co.za/ which notes the covers and policy exclusions.

c) Aviation Liability Insurance which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising from the execution of the Contract with a limit of indemnity **of R2,000,000,000** in respect of any one occurrence or series of occurrences consequent on or to one source or original cause.

This insurance is in respect of liability relating to aircrafts.

d) Design & Construct Professional Indemnity Insurance which provides indemnity against legal liability to pay compensation as a result of any actual or alleged negligent act, error or omission in the performance of the Professional Duties of the insured and arising from the execution of this project. The limit of indemnity under this insurance shall be ***R25,000,000 in the aggregate during the annual policy period of insurance that ACSA effect such cover during the policy period from 1 April to 31 March during each policy period of insurance.**

The limits of indemnity applies to all ACSA contracts as a whole and does not apply specifically to this contract. The aggregate limit could be exhausted by claims under other ACSA contracts and there is no guarantee that this insurance cover shallprovide sufficient cover to this specific contract should the aggregate limit be exhausted.

The Policy only covers the rectification of the works and excludes all consequential losses.

Professional Duties do not include:

a) Labour and construction work which would normally be the responsibility of the building or engineering contractor.

b) Supervision of the construction works usually undertaken by a building or engineering contractor.

1.2 The **Contractor** shall familiarise itself fully with the details of such insurance effected by the Employer. The Contractor shall comply to all the terms and conditions of the Employer arranged policies and the Contractor shall be deemed to be fully aware of all the conditions, limits, limitations, exclusions/exceptions and deductibles that are contained in the Employer arranged policies. Copies of the Employer arranged policies are obtainable on request from the Employer and if the Contractor is of the opinion that additional insurance is required, such shall be for the Contractors account.

1.3 The Employer shall pay the premium in connection with the insurances effected by the Employer. The Employer is entitled to all return premiums, dividends, discounts, or adjustments in connection with the insurances effected by the Employer.

1.4 The Contractor shall not include any premium charges for this insurance except to the extent, which he may deem necessary in his own interests to effect supplementary insurance to the insurance effected by the Employer. The Employer reserves the right to call for full information regarding insurance costs included by the Contractor.

In the event that the Contractor purchases any insurances in addition to those indicated above, the premium and taxes, duties, etc. shall be borne entirely by the contractor.

1.5 Any further clarification of the scope of cover provided by the Policies arranged by the Employer should be obtained from the Employer.

1.6 The Contractor and/or any other party who obtains indemnity under the policies effected under 1.1 shall become liable for the deductibles (first amount payable) which are applicable in respect of each and every occurrence or series of occurrences attributable to one source or cause giving rise to loss or damage or indemnifiable liability. The deductibles applicable to the policies effected under 1.1 are as follows:

a) Contract Works/Contractors Public Liability/ Removal Of Lateral Support Liability

Unless stated otherwise in the Policy Extensions the Deductibles shall be as follows which shallapply in respect of each and every occurrence or series of occurrences arising out of or in connection with any one event giving rise to loss or damage:

Section 1 Of The Policy – Contract Works

In respect of all loss or damage **R150,000** but increased to **R250,000** in respect of loss or damage arising out of or in connection with testing and commissioning.

Section 2 Of The Policy – Contractors Public Liability

R75,000 each and every claim in respect of Property Damage.

Section 3 Of The Policy – Removal Of Lateral Support Liability

R75,000 each and every claim.

b) Contract Works SASRIA

In respect of theft as a result of the SASRIA perils insured - **R25,000** each and every occurrence.

c) Aviation Liability Insurance ;

In respect of each and every loss or damage or injury - **US$250,000.**

d) Design & Construct Professional Indemnity Insurance

a) In respect of contracts under R50 million at award – **R5,000,000.**

b) **In respect of contracts over R50 million at award – R10,000,000**

1.7 In the event of any occurrence which is likely to give rise to a claim under the insurance arranged by the Employer, the Contractor shall:

a) In addition to any statutory requirement or other requirements contained in the Contract immediately notify the Employer and the Employer's Insurance Brokers by telephone, mobile phone or email giving the circumstances, nature and an estimate of the loss or damage or liability. The Contractor must also complete the Claim Advice Form (Appendix “A”).

The following persons/insurers must be advised immediately on the occurrence of a claim on site or even a possibility of a claim arising due to an incident occurring on site:

Airports Company South Africa :

Nokulunga Masiza

Tel: +27 (0)11 723 1400

M: +27 (0)79 512 0532

Nokulunga.Masiza@airports.co.za

Buhle Mnguni

D:+27(0)11 723
1400
M:+27 (0)74 535
9075

Buhle.Mnguni@airports.co.za

b) Preserve damage and make it available for inspection by a representative of the Insurers.

c) Wherever possible, photographs of damage should be taken.

d) Inform the police authorities promptly in the event of loss or damage by theft, burglary or any malicious persons(s) for the purpose of recovering any property so lost, discovering the guilty person or persons, and having him, her or them duly prosecuted.

e) Advise the Insurers of any other insurance(s) which may cover the same loss, damage or injury, or any part thereof.

f) Give to the Insurers every assistance to enable the Insurers to settle or resist any claim against the Insured, or institute any proceedings;

g) On completion the Claims Advice Form, the form must be sent to the Employers Insurance Brokers for further action (the original may be emailed to the Employers Insurance Broker). (Please do not remove the Claims Advice Form out of this document. Rather photocopy the form and send the copy to the Employers Insurance Brokers).

h) The Employer and the employers Insurance brokers / Insurers or their appointed loss adjusters shall have the right to make all and any enquiry's on the Site of the Works or elsewhere as to the cause and results of any such occurrence and the Contractor shall co-operate in carrying out such enquiry's.

f) The Contractor, Project Managers and Consultants must allow free access to Insurers' assessors for the purpose of investigating and assessing the loss or damage.

i) The Contractor must not proceed with the making good any off the loss without the prior authorisation of the Insurers.

j) The Contractor must keep separate records of the costs involved in making good any loss or damage and these records should be available at all times for inspection by Insurers. Such records should include inter alia the entire cost of labour, materials, transport and equipment.

k) Where required by the Employer, negotiate the settlement of claims with the Insurer or their appointed loss adjusters through the Employer's Insurance Brokers and shall obtain the Employer's approval of such settlement.

l) Once the amount of a claim is agreed by the Insurers and the Contractor, an "Agreement of Loss" form must be signed by the Contractor and if required this shall be counter signed by the Employer or the Project Managers.

m) The proceeds of such claim will, if required by the Employer, be paid net of any Deductible applicable under the policy by the Insurers to the Employer who on receipt thereof shallarrange for payment to be made in terms of the Conditions of Contract. In the event that it is agreed by

the Employer that such claims payment be made directly to the Contractor, the Contractor shall arrange for the Employer to endorse the “Agreement of Loss” to this effect.

2. **Insurance Effected by the Contractor.**

In addition to Clause 1.1 in respect of the insurances effected by the Employer the following Insurances to be effected by the Contractor:

2.1 Without limiting the Contractor’s obligations, responsibilities and liabilities, the Contractor and Sub-contractor shall maintain at the Contractor's and Subcontractor’s expense and where applicable provide as a minimum the following insurances:

a) Insurance of Construction Plant and Equipment (including tools offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.

The Employer shall be named as additional insured and a waiver of subrogation shall be provided to the Employer.

b) Contractor’s Common Law Liability/ Worker’s Compensation Insurance

The Contractor shall take out and maintain employer's liability insurance with a limit of indemnity of not less than **R20,000,000** and/or workmen's compensation insurance covering personal injury to or death of the employees of the Contractor engaged in connection with the Works to the minimum value required by applicable law.

The Contractor shall procure that its Subcontractors take out and maintain similar insurance in respect of its Subcontractor’s personnel performing the Works.

In the event that a claim is made against the Employer in connection with such insurance, the Contractor shall indemnify and hold harmless the Employer against any such claim. The Employer shall be named as additional insured and a waiver of subrogation shall be provided to the Employer.

c) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability indemnity with a limit of indemnity of not less than **R5 000 000** for all owned, non-owned, leased and hired vehicles.

d) Insurance For Buy-Down Cover Of Employer’s Deductibles

Should the Contractor believe that the Employer effected Contract Works, Public Liability and Design & Construct Professional Indemnity deductibles as noted in Clause 1.6 (a),(c) and (d) be considered to be unacceptable to the Contractor, then the Contractor must obtain Buy Down cover for these deductibles to a deductible considered by the Contractor as being acceptable in respect of the works being undertaken.

e) Where the Contract involves manufacturing and/or fabrication of the Works or parts thereof at premises other than at the Contract Site the Contractor shall satisfy the Employer that all

materials and equipment for incorporation in the Works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such Works during manufacture or fabrication then such interest shall be noted by endorsement to the relevant Policies of Insurance.

Such insurance shall name Employer as an additional insured and shall be primary to any insurance maintained by the Employer.

f) **Public Liability** insurances in excess of the Employers Public Liability insurances as stated under clause 1.1(a).

g) **Aviation Liability** insurances in excess of the Employers Aviation Liability insurances as stated under clause 1.1(c).

h) **Contractor's Professional Indemnity Insurance** in excess of the Employers Design & Construct Professional Indemnity insurances as stated under clause 1.1(d) and if applicable to cover the deductible that applies to the Employer effected insurance.

i) **Marine Cargo Insurance (If Applicable)**

Cover: Imports of cargo, equipment, goods, plant, machinery and materials ("**Insured Property**") to the site where the Permanent Works shall be constructed.

Sum Insured: Not less than the value of the largest single cargo shipment, conveyance or the value in storage, whichever is the greater (CIF plus 10%).

Marine / Air Cargo Insurance covering the Insured Property against all risks of physical loss or damage while in transit by land, sea or air from country of origin anywhere in the world to the site where the Permanent Works shallbe constructed including loading, or vice versa, from the commencement of the time the insured items are loaded prior leaving the warehouse or factory for shipment to the said site.

The insured parties are the Employer, the Contractor and its Subcontractors, and all their personnel involved in the execution of any Works on the construction site.

j) **Miscellaneous Insurance**

Other insurance as is customary, desirable or necessary to comply with applicable Laws in the Country.

2.2 The insurances to be provided by the Contractor and his Sub-contractor shall be affected with Insurers and on terms approved by the Employer (which approval shall not be unreasonably withheld) and shall be maintained in force for the duration required (including any period of maintenance/defects liability period). The Contractor shall within twenty-eight (28) days of commencement of the contract produce to the Employer the relevant Policy or Policies of Insurance.

2.3 In the event that the Contractor or his Sub-contractor receives any notice of cancellation or restrictive modification to the insurance provided to them they shall immediately notify the Employer in writing of such cancellation or restriction and shall advise what action the Contractor or his Sub-contractor shal ltake to remedy such action.

If the Contractor fails to effect and keep in force the insurances referred to then the Employer may effect and keep in force any such insurances and pay such premium or premiums as may be necessary for

that purpose and from time to time deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.

2.4 **Sub-Contractors.**

The Contractor shall:

a) ensure that all potential and appointed Sub-contractors are aware of the whole contents of these Insurance Clauses, and

b) enforce the compliance by subcontract agreement between the Contractor and Sub-Contractor and where applicable that the Subcontractor effect similar insurance relating to the insurances required to be effected by the Contractor under Clause 2 (Contractor effected insurances).

APPENDIX A

CONTRACTORS CLAIMS ADVICE FORM - FOR ACSA INSURED CONTRACTS UNDER THE ANNUAL POLICY

Send to: Airports Company South Africa

*****.....
.....
.....
.....
.....
…….....

E-Mail The Following People:

Nokulunga.Masiza@airports.co.za

Buhle.Mnguni@airports.co.za

***** (Please provide name of contracting company, site address, telephone numbers and e-mail address).

RE: ACSA CONTRACTORS: CAR/PL/PI: CLAIM

Date of loss: _____

Reported to site agent by: _____ Date: _____

Reported to Insurance Broker by: _____ Date: _____

How did the loss occur (cause)? _____

Details and nature of loss or damage to Contract Works _____

Details of other property damaged _____

_____

Names and address of witnesses _____

Estimated cost of repairs (Separate records of all costs must be kept) R_____

Person whom assessor should contact _____

Telephone/Mobile Numbers Of Contact Person_____

Email Address of Contact Person_____

C1.2 Contract Data

Part two - Data provided by the *Contractor*

[Instructions to the contract compiler: (delete this notes before issue to tenderers with an enquiry) Whenever a cell is shaded in the left hand column it denotes this data is optional and would be required in relation to the option selected. In the event that the option is not required select and delete the whole row.]

Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)[1] in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 152 to 154 of the ECC3 Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [ ] appears, data is required to be inserted relevant to the option selected. Click on the form field ***once*** and type in the data. Otherwise complete by hand and in ink.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(8)	The *direct fee percentage* is The *subcontracted fee percentage* is	**%** **%**
11.2(18)	The *working areas* are the Site and	**Refer to C4 'Site Information'**
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	 **Project Manager** **Electrical Engineer**

[1] Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

	3 Name: Job Responsibilities: Qualifications: Experience:	**Construction Manager/ Site Supervisor** **CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .**		
11.2(3)	The *completion date* for the whole of the *works* is			
11.2(14)	The following matters shallbe included in the Risk Register			
11.2(19)	The Works Information for the *Contractor*'s design is in:			
31.1	The programme identified in the Contract Data is			
B	**Priced contract with bill of quantities**			
11.2(21) 11.2(31)	The *bill of quantities* is in The tendered total of the Prices is	**(in figures)** **(in words), excluding VAT**		
	Data for Schedules of Cost Components	**Note "SCC" means Schedule of Cost Components starting on page 60 of ECC3, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3.**		
B	**Priced contract with bill of quantities**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	**Minus %**		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	**Category of employee**		**Hourly rate**

	Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. **Please insert another schedule if foreign resources may also be used**	
62 in SSCC	The percentage for design overheads is	**%**
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:	

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	4
C2.2	The *Price list*	7

C2.1 Pricing assumptions: Option A

T The *conditions of contract*

How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 (ECC3) Option A states:

Identified and defined terms	11 11.2	(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract. (27) The Price for Work Done to Date is the total of the Prices for • each group of completed activities and • each completed activity which is not in a group. A completed activity is one which is without Defects which would either delay or be covered by immediately following work. (30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering contractor as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

Function of the Activity Schedule

Clause 54.1 in Option A states: “Information in the Activity Schedule is not Works Information or Site Information”. This confirms that instructions to do work or how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, “The *Contractor* Provides the Works in accordance with the Works Information”. Hence the *Contractor* does **not** Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

Link to the programme

Clause 31.4 states that “The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance”. Hence when compiling the *activity schedule*, the tendering contractor needs to show each activity on the programme he submits with his tender.

Preparing the *activity schedule*

The tendering contractor prepares the *activity schedule* and should study the ECC3 Guidance Notes pages 19 and 20 before doing so. The *Employer* may have instructed the tendering contractor to include particular activities which he has specified and requires the *Contractor* to identify them in his *activity schedule*.

1. Generally, it is the Contractor who prepares the Activity Schedule as part of his tender by breaking down the work described within the Works Information into suitable activities which can be well defined, priced as a lump sum and shown on the programme. The Employer, in his Conditions of Tender or in a Tender Schedule, may have listed some items that he requires the Contractor to include in his activity schedule and be priced accordingly.

2. The Prices are defined in clause 11.2(20) as the lump sum for each activity in the activity schedule and the Price for Work Done to Date (PWDD) (the amount due to the contractor) is defined in clause 11.2(24) as the total of the Prices for each activity that has been completed. Hence activities in the activity schedule should be structured so as to provide an acceptable monthly cash flow as they are only assessed for payment on the assessment date if they have been completed.

3. As the Contractor has an obligation to correct Defects (core clause 43.1) and there is no compensation event for this unless the Defect was due to an Employer's risk, the lump sum Prices must also include for the correction of Defects.

4. If the Contractor has decided not to identify a particular activity, the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices in order to fulfil the obligation to complete the works for the tendered total of the Prices.

5. There is no adjustment to the lump sum activity schedule price if the amount, or quantity, of work within that activity later turns out to be different to that which the contractor estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

6. Hence the Prices tendered by the Contractor in the *activity schedule* are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an Employer's risk.

7. However, the Contractor does not have to allow in his Prices for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an Employer's risk event listed in core clause 80.1.

C2.2 The price list

C2.2 Price List

Table A: The Price List is as follows for A3&A4 passenger loading bridge replacement:

Item number	Description of Work	Unit	Quantity	Rate (ZAR)	Total (ZAR)
1	**Administrative fees costs**				
1.1	Site Establishment	Each	Once off		
1.2	Parking fees	Each	Yearly	200	
1.3	Airport access Permits	Each	Yealy	600	
1.4	Insurance (ACSA required for this contract)	sum	Yearly	650	
2	**Compliance with Environment and safety**				
2.1	Safety file Set up administrative cost	EA	Once Off		
2.2	Supervision and project progress reports	EA	Monthly		
2.3	PPE	Yearly	3		
2.4	Report to City council	Once	1		
2.5	SHE Agent	Monthly	36		
3	**Fixed tunnel**				
3.1	Demolition of fixed tunnels and removal from site	sum	2		
3.2	Desing of the new tunnels	Sum	2		
3.3	Supply and delivery of the tunnel construction material	Sum	2		
4.	**Construction of the Fixed tunnel**	No.	2		
4.1	Civil works	Sum	2		
4.2	Electrical Works including Testing and Commissioning.	Sum	2		
4.3	Mechanical Works	Sum	2		
4.3	Other (incl. Firefighting system)	Sum	2		
5	**Movable Bridge**				
5.1	Demolition of the existing bridge and removal from site	Sum	2		
5.2	Design of the new bridges	Sum	2		
5.3	Supply and delivery of the new bridges on site.	Sum	2		
6.	**Installation of the new bridges**				
6.1	Civil works	Sum	2		
6.2	Electrical Works including Testing and Commissioning.	Sum	2		
6.3	Mechanical Works including Testing and Commissioning.	Sum	2		
6.4	Electronics Installations including Testing and Commissioning.	Sum	2		
7	**Commissioning**				
7.1	Training and certification	Sum	2		
7.2	Spares list and Manuals (Operational and Maintenance)	Sum			
8	**Site Restoration and commissioning**	Sum	2		
	Sub total	**R**			

9	**Contingency (20% of Total)**	Sum	2		
	Vat	**R**			
	Total Project cost	R			

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	GENERAL TENDER REQUIREMENTS & PROJECT SCOPE	2
C3.2	MANAGEMENT OF THE WORKS	6
C3.2	APPLICABLE STANDARDS	1
C3.4	LIST OF TENDER DRAWINGS	1
	Total number of pages	10

PART C3.1: GENERAL TENDER SPECIFICATION & DESCRIPTION OF WORKS

Refer to Annexure C3.1: General Tender Specifications

DESCRIPTION OF WORKS

The main objective of this project is to replace the deteriorated, unsafe and unreliable A3 and A4 passenger loading bridges located at the Alpha apron and replace them with modern, efficient and reliable passenger loading bridges that shall improve the current challenges in operations related to the old units. The new passenger loading bridges scope includes the stationary/fixed tunnel which connects the bridge to the terminal building. The work shall includes decommissioning, design, fabrication, installation, test and commission of both A4 & A3 passenger loading bridges fixed and moving parts of the bridge.

The Project Scope of Works comprise, inter-alia the following:

1. A3 and A4 Passenger loading bridges replacement minimum requirements

C3.1.1 Statutory notifications and applications

3.1.1.1 Compile a baseline risk assessment for the entire works using an SACPCMP registered professional in the category of Construction Health and Safety Agent.

3.1.1.2 Compile construction permit application or notification documentation and lodge with the department of labour.

3.1.1.3 Compile a lifting plan for the works in accordance with the Construction Regulations made in terms of the Occupational Health and Safety Act no 85 of 1993.

3.1.1.4 Compile and lodge necessary documentation with and supply necessary information to the South African Civil Aviation Authority's approved obstacle assessment service providers for permission to utilise a crane on the airside.

C3.1.2 Professional Engineering and Project Management Services

Professional Engineering and Project Management Services Shall be provided in accordance with the Identification of Engineering Regulations gazetted in March 2021 and the Project and Construction Management Professions Act 48 of 2000.

The minimum performance requirements shall be as tabulated below.

Aircraft Mix: ICAO Code D, E and F

Max Design retract and extend cycles per day: 30

Operational design hours: 24h per day

Design Life of structure: 20 Years

Design Life of Electronics and Controls: 7 Years

Design Life of Electrical Components: 7 Years

Cable flex cycles: 10 Years

Target Monthly Availability: 99.5%

Number of telescopic tunnel sections: 3

Minimum tunnel internal clear width: 1.4m
Minimum tunnel internal clear height: 2.1m
Sound Power level: <85dB-A

The scope for Engineering Services shall follow the Engineering Council of South Africa (ECSA) 6 stage model as follows:

3.1.2.1 ECSA Stage 1 - Inception

3.1.2.1.1 Site Survey to determine Alpha 3 and 4 aircraft stand geometric design, determine position of power points, inspect existing fixed bridge links and the apron drives, conduct necessary measurements to ensure that all anticipated CODE C to F aircrafts can be reached by the new passenger boarding bridges, survey power supply sources, survey existing networks and interfaces and foundation types for the existing rotunda structures.

3.1.2.1.2 Conduct necessary tests or any investigation to enable ECSA Stage 2 and Stage 3 designs.

3.1.2.1.3 Determine a schedule of necessary consents and approvals.

3.1.2.1.4 Compile and Submit the ECSA stage 1 inception report.

3.1.2.2 ECSA Stage 2 – Concept Designs

3.1.2.2.1 Concept design of the fixed bridge link which includes the geometry (frame design, outside dimensions and internal dimensions), run-off water control, waterproofing, ceiling details, glass panes arrangement, air-conditioning hide-away indoor ducting unit, ducting and swirl diffusers' layout, position of outdoor VRV (Heat-pump) condenser unit, lighting position, fresh air supply layout, fixed bridge link and terminal building connection details, aesthetic artifacts concept, exit stairs to bridge link connection details, fire detection layout, non-slip flooring concept, stair case details, underbridge services (power, network cables, corrosion proof cable tray concepts and or fire sprinklers located inside the bridge and underneath) fixed bridge link to rotunda transition zone layout and connection details.

3.1.2.2.2 Concept design of the Transition area between the fixed bridge link and the rotunda, weatherproof exit door position and type, fixed staircase leading to ground with slope not more than 38 degrees, non-slip staircase, handrails, width of at least a meter, and with landings at least every 2.1 meters of vertical rise installed on the service road side of the apron, ceiling details, custom vertical slot air-conditioning diffusers, ceiling details and exit door type and signage.

3.1.2.2.3 Rotunda concept design including foundations and support column(s) details, custom vertical slot diffusers for distribution of conditioned air in the transition area, ceiling and architectural artifacts on side walls, position of an ingress protected DB Box, non-slip flooring concepts.

3.1.2.2.4 Telescopic tunnels concept designs including bridge head, all dimensions, elevations showing typical connections to the aircraft types specified, lighting layout, air conditioning condenser unit position(s), indoor unit with custom vertical slot diffusers on each tunnel section up to the bridge head enabling distribution of conditioned air throughout the apron drive bridge sections when in

expanded position, underbridge structure for future mounting of Ground Power units suitable for Code C-F aircrafts, under-bridge non-corrosive trailing cable trays, camera positions (in transition area, in the bridge head, underbridge showing the bogie and 360 rotating camera to show all around the bridge), position of auto leveller, position of operator panel, service door, position of the service staircase, position and type of service doors in the bridge head, bridge head canopy material concept and design, position of safety instruments, bridge head shutter mechanism concept, non-slip flooring

3.1.2.2.5 Compile and submit an ECSA stage 2 report.

3.1.2.3 ECSA Stage 3 – Detail Designs

3.1.2.3.1 Detail designs of the fixed bridge link structural framing and specs, hot dip galvanising specifications, inhibitor coating primer, the sealer, the intermediate coat and finishing coating to resist the class XS1 environment, the low emissivity glazing specifications , air-conditioning heat load calculations, fresh air requirements, weatherproof and 4k resolution camera specifications for security surveillance inside the bridge focusing on the operating console, fire detection system specifications and integration(with building fire detection) details, ceiling details, lighting design details, air-conditioning ducting specifications, diffuser specifications, indoor unit specifications, outdoor unit specifications, bridge-to-building and bridge to transition area connection details, above bridge waterproofing specifications, under-bridge services details and specifications (sprinklers, power cables, cable trays etc), non-slip floor specifications, handrails specifications, run-off water control detail design, wind loading, dead load and seismic loading technical analysis (in line with SANS 10160 series) including maintenance access to the bridge roof.

3.1.2.3.2 Detail design of the transition area showing, structural framing, hot-dip galvanising specifications, corrosion inhibitor coating specifications for primer, intermediate and final coat for an XS1 environment, non-slip floor details exit door specifications, detail design of the staircase leading to the ground including corrosion proofing specifications, lighting specifications and position, fire detection layout and specifications, low emissivity glass specifications, signage and positioning, sprinkler position details, ceiling details and specifications, run-off water control detail design , waterproofing specifications, wind loading, dead load and seismic loading technical analysis (in line with SANS 10160 series).

3.1.2.3.3 Detail design of the rotunda, the details of the DB on the ground including specifications, rotunda foundations design, corrosion inhibitor coating specifications for primer, intermediate and final coat for an XS1 environment, weatherproof details, connection to telescopic bridge details, bolt specifications and corrosion proofing thereof.

3.1.2.3.4 Detail design structural framing of the telescopic bridge including bridge head, hot-dip galvanising specifications, corrosion inhibitor coating specifications for primer, intermediate and final coat for an XS1 environment, lighting specifications, air conditioning condenser unit (VRV Heat-pump) specifications, Controller specifications, operator panel specifications, heat load calculations, fresh

air requirements, detail designs of indoor unit(s) with custom vertical slot diffusers on each tunnel section up to the bridge head enabling distribution of conditioned air throughout the apron drive bridge sections when in expanded position, detail design of the corrosion proof underbridge structure for future mounting of Ground Power units suitable for Code C-F aircrafts, under-bridge non-corrosive trailing cable trays, camera positions (in transition area, in the bridge head, underbridge showing the bogie and 360 rotating camera to show all around the bridge), auto leveller specifications, service door specifications, service staircase detail design and specifications with corrosion proofing specifications for XS1 environments, position and type of service doors in the bridge head, bridge head canopy details design and material specifications, safety instruments specifications and positions, rotating bridge head shutter mechanism design and specification , non-slip flooring, bogie and vertical movement device specifications, control system specifications and wiring diagrams, HMI specifications, control joystick specifications, operating buttons specifications, UPS specifications, PLC/Controller specifications, ladder logic details (if applicable), PLC/Controller tag list/parameter set, trailing power cable specifications, trailing cable trays specifications, Bridge operating performance dashboard design, machine learning model details, predictive analytics model details, details for bridge monitoring via web portal from anywhere including VPN tunnelling, interface details to IMC for monitoring, error code list, operator communication telephone, camera specifications. Hydraulic system specifications, drive motor specifications, power drive component specifications, cable specifications, tunnel weatherproof detail designs.

3.1.2.3.5 Construction and installation method statement.

3.1.2.3.6 Compilation and submission of stage 3 report.

3.1.2.4 ECSA Stage 4 – Documentation and Procurement

3.1.2.4.1 Develop a quality control plan with hold points, witness points, review points, verification points and check point.

3.1.2.4.2 Compile factory acceptance test (FAT) requirements which include but not limited to Design Compliance, Functional Testing, Safety Systems, Electrical Systems, Mechanical Systems, User Interface, Documentation and accessibility.

3.1.2.4.3 Conduct quality assurance and FAT.

3.1.2.4.4 Compilation and submission of stage 4 report.

3.1.2.5 ECSA Stage 5 – Contract Administration and Inspection

3.1.2.5.1 Clarify details and descriptions during construction as required.

3.1.2.5.2 Attend regular Site, technical and progress meetings.

3.1.2.5.3 Inspect works for conformity to contract documentation.

3.1.2.5.4 Witness and review of all tests and mock ups carried out both on and off site.

3.1.2.5.5 Issue contract instructions as and when required.

3.1.2.5.6 Arranging for the delivery of all test certificates, including the Electrical Certificate of Compliance. statutory and other approvals, as built drawings and operating manuals.

3.1.2.5.7 Inspect the works and issue practical completion and defects lists.

3.1.2.5.8 Commission the entire new installation and sign off on commissioning certificates.

3.1.2.5.9 Compile and submit stage 5 report

3.1.2.6 ECSA Stage 6 – Close out

3.1.2.6.1 Inspect and verify the rectification of defects.

3.1.2.6.2 Prepare and/or procure operations and maintenance manuals, guarantees and warranties.

3.1.2.6.3 Prepare and/or procure as-built drawings, technical datasheets, operating manuals and maintenance documentation (procedures, manuals and spares lists).

3.1.2.6.4 The datasheets shall include but not limited to Auto leveller datasheet, safety shoe datasheet, safety instruments datasheets, camera datasheets, PLC/Controller datasheets, relay datasheets, joystick datasheet, air-conditioning equipment datasheet, diffuser datasheet, bogie wheel, hydraulic pack datasheets, drive motors, chains (if applicable), lubrication datasheet, lighting datasheet, control panel datasheet

3.1.2.6.5 All information shall be transferred digitally and shall be in PDF format. Drawings shall be in DWG and PDF.

3.1.2.6.6 A list of assets created in accordance with the ACSA Data Dictionary. (ACSA will provide the Data Dictionary)

3.1.2.6.7 The list of assets must contain all the details required to complete the ACSA Capitalisation form, these are:

3.1.2.6.7.1 Date of when new asset was complete and came into use.

3.1.2.6.7.2 List of assets to be disposed during demolition phase.

3.1.2.6.7.3 New asset: what is the expected life span of this equipment/infrastructure – to be added on the data dictionary as provided by ACSA.

3.1.2.6.7.4 Provide: Serial numbers, Make and model, Asset Description, Cost Centre

3.1.2.6.7.5 Also inform if there are different components (items that have a different life span)

3.1.2.6.7.6 Bar codes to be added, will be done after all assets has been identified. Barcodes available from ACSA Finance office.

3.1.2.6.8 Compile and submit stage 6 report.

3.1.2.7 Project Management Services

3.1.2.7.1 Site supervision to ensure compliance with all applicable requirements including ACSA policies and procedures.

3.1.2.7.2 Attendance of Weekly site meetings, Monthly progress meetings including Ad-hoc meetings.

3.1.2.7.3 Provision of monthly progress reports and updated construction programme.

3.1.2.7.4 Appointment and management of subcontractors' performance.

3.1.2.7.5 Deliver project management services in accordance with the guidelines and standards outlined in the PMBOK® Guide, ensuring effective oversight and coordination throughout the project lifecycle. These services shall include, but are not limited to, integration management to unify all components of the project, scope management to define and control what is and is not included, schedule management to develop and maintain timely completion, cost management to plan and control the budget, quality management to ensure deliverables meet defined standards, resource management to optimise team and material utilisation, communications management to support efficient and transparent stakeholder engagement, risk management to identify, assess, and mitigate potential issues, procurement management to oversee external supplier contracts and services, and stakeholder management to ensure the needs and expectations of all parties are addressed.

3.1.2.8 Post-Implementation Support & Knowledge Transfer

3.1.2.8.1 Provide training programs for airport PLB operating and maintenance personnel on new systems and operational safeguards.

3.1.2.8.2 Develop maintenance and operational guidelines for newly integrated technologies.

3.1.2.8.3 Offer on-call technical advisory support during the initial months of operation.

3.1.2.8.4 Prepare final project documentation and lessons-learned reports for continuous improvement.

C3.1.3 Alpha 3 and Alpha 4 Passenger loading bridges replacement minimum requirements

3.1.3.1 Decommissioning of the fixed bridge Links, passenger boarding bridges, transition areas and the staircases leading to ground

3.1.3.1.1 Assessment of the existing installation for identification of all hazardous materials, structural issues, or special considerations.

3.1.3.1.2 Develop safety protocols, lifting plan for the decommissioning process to protect workers and passengers. The lifting work shall be under the control and supervision of a qualified and experienced rigger.

3.1.3.1.3 Assess, identify and disconnect all utilities associated with the current installation, including electrical, firefighting systems, and any other systems including making them safe.

3.1.3.1.4 Outline the procedures for dismantling the existing installation, including methods for safely removing structural components, glazing etc.

3.1.3.1.5 Plan for the proper disposal of materials from the decommissioned tunnel, adhering to environmental regulations such as Occupational Health and Safety Act 85 of 1993 (OHSA), SANS 10085 and 10400, National Environmental Management Act, ISO 9001 and 14001. The employer shall be issued with a disposal certificate for hazardous waste like oil, and lubricated components.

3.1.3.2 Fixed Bridge Link and Transition Area

3.1.3.2.1 Supply and install the fixed bridge link with mild steel structural framing, hot dip galvanised, with inhibitor coating primer, the sealer, the intermediate coat and finishing coating to resist the class XS1 environment, the low emissivity glazing walling on both vertical sides compliant with SANS 10400 Part N.

3.1.3.2.2 Internal clear width shall be a minimum of 1.4m in fixed link and in transition area shall be as is on site.

3.1.3.2.3 Flooring shall be of non-slip type. The floor design should encompass the following considerations: provide overall dimensions and configuration of the tunnel floor; specify load-bearing capacity requirements tailored to anticipated foot traffic and equipment; identify materials to be used, ensuring they are anti-slip, strong, and durable, suitable for the passenger loading tunnel environment in an airport; include considerations for structural support to accommodate both static and dynamic loads; identify and specify emergency exits along with clear signage for evacuation routes; ensure sufficient space for passenger flow and equipment movement; and include connection points to terminal buildings.

3.1.3.2.4 Roofing must incorporate insulation for thermal resistance, helping to maintain comfortable conditions inside the fixed link bridge and energy-efficient roofing solutions that minimize heat transfer and reduce energy costs.

3.1.3.2.5 Roofing must also be at a slope to allow for water run-off and have incorporated conduits to direct such run-off water.

3.1.3.2.6 Roofing must be able to support both the weight of the roofing materials and any additional loads, such as snow, maintenance personnel, etc.

3.1.3.2.7 The fixed link bridge roofing must be constructed for maintainability and must make provision for the walking/maintenance areas on the roof to have non-slip surfaces to prevent accidents and include safety features such as collapsible guardrails and or parapets around the edges of the roof to protect workers performing maintenance.

3.1.3.2.8 The fixed link roofing must have effective waterproofing to prevent leaks and incorporate proper drainage solutions to manage rainwater and prevent pooling.

3.1.3.2.9 The fixed tunnel shall form the weatherproof link between the terminal building (departures and arrivals) and the rotunda/vestibule or transition area.

3.1.3.2.10 The fixed link bridge shall complement the overall architecture of the airport and aligns with branding standards.

3.1.3.2.11 The Colour and Finish must be off white and must be resistant to fading or discoloration from UV exposure.

3.1.3.2.12 Supply and replace underbridge services and cable trays/fixtures with new (firefighting systems which including sprinklers).

3.1.3.2.13 Supply and Install VRV air-conditioning outdoor unit, refrigeration piping, indoor hide-away ducted unit, ducting (galvanised sheeting duct and flexible ducts), swirl diffusers with diffuser throw radius covering entire length of bridge link, wall mounted air-conditioning controller mounted in proximity

of the fixed bridge link and building connection point, fresh air fan with aluminium weather louvre, electrical supply to the air-conditioning units and fresh air fan.

3.1.3.2.14 Supply and Install 1x FM (Factory Mutual Insurance Company) Global approved fire detection panel for both Alpha 3 and Alpha 4 integrated to the terminal building fire detection system, fire detectors, fire detector cabling and galvanised mesh wire cable trays, fire detection relays to indoor hide-away ducted units, outdoor VRV units and fresh air fans.

3.1.3.2.15 Supply and Install Suspended ceiling, LED lighting to achieve minimum luminance lux levels of 200, Unified glare rating of 22 and Colour Rendering Index of 80. Lighting must also comply with Facilities Regulations made in terms of the Occupational Health and Safety Act 85 of 1993 and SANS 10400 Part O.

3.1.3.2.16 Supply and install internal exit stairs signage which complies with SANS 10400.

3.1.3.2.17 Supply and install a 9kg dry chemical powder fire extinguisher in the transition area.

3.1.3.2.18 Supply and install an exit door which has insulation for thermal resistance and has a fire rating compliant with SANS 10400 Part T.

3.1.3.2.19 Supply and install an exit stair-case which complies with SANS 10400 and approved in terms of ECSA Stage 2 and 3 requirements articulated in this scope document. The colour shall be white and shall be hot dip galvanised, with inhibitor coating primer, the sealer, the intermediate coat and finishing coating to resist the class XS1 environment.

3.1.3.3 Apron drive Passenger boarding Bridge

Supply and install the two A3 and A4 passenger loading bridges as detailed also in the project brief. The design shall be an apron drive single spoke design, this shall include the bridge head with canopy, bogie, telescopic tunnels, rotunda and its accessories such as hydraulic system, electrical controls system, control desk with screen and controlling features, bridge's safety features and electrical connections and supply.

The telescopic sections form a weatherproof corridor between the rotunda and the bridgehead. Telescoping tunnels shall be rectangular in cross section and hinged for vertical motion at the rotunda. The tunnel with the largest cross section shall be closest to the aircraft for Apron drive PBB's.

The ramps sections shall have handrails on both sides. Flexible seals are to be used between the telescopic tunnel sections to provide a weather-tight seal. The external surfaces of the telescopic section shall have no cavities or deflections where water or any other contaminations, dirt, etc can accumulate. All tunnels shall have flat roofs, designed to facilitate positive water drainage.

3.1.3.4 Passenger Boarding Bridges (PBB) Slopes

3.1.3.4.1 Design of the PBB should always try and maintain a minimum slope of 1:12 (8,33%) during operational docking.

3.1.3.4.2 Slope limits shall be adjustable for both up and down slopes of the telescopic tunnel section i.e. The PBB shall be capable of achieving a minimum of 1: 10 (10%) slopes without causing damage to the PBB or ancillary equipment.

3.1.3.5 Tunnel Structure

3.1.3.5.1 Supply and install the tunnel structure certified that it can sustain all the loads imposed on it. The structural design shall provide enough torsional rigidity to avoid excessive sway when the passenger boarding bridge is brought to a stop. The structure shall comprise hot dip galvanised structural elements compatible with the local corrosive atmosphere as would have been approved in ECSA stage 2 and 3 articulated in this scope document. The tunnel shall be supplied with an air-conditioning unit as stipulated in ECSA stage 2 and 3 requirements of this scope document.

3.1.3.5.2 The telescoping tunnels shall be equipped with an under bridge mounted exterior electrical cable conveyance system. This system is accessible to maintenance personnel for inspection or cable addition at all passengers boarding bridge positions and operations conditions.

3.1.3.5.3 The telescopic tunnel section of the bridge shall be designed to accommodate the added loads of 400 HZ ground power and preconditioned air equipment

3.1.3.6 PBB Movement

3.1.3.6.1 Supply and install the drive column assembly which shall provide the force to swing, extend or retract, and raise or lower the bridge. This assembly shall be electro-mechanical. The assembly shall be designed to permit simultaneous vertical travel, horizontal travel, and steering to permit docking within the allowed time requirement.

3.1.3.6.2 The vertical movement device shall be of the hydraulic type. The hydraulic pack motors and hoses shall have a minimum safety factor of 30%.

3.1.3.6.3 All drive motors shall have a minimum IP56 rating and shall be coated with a corrosion inhibiting coat for XS1 environments.

3.1.3.7 PBB Walls

3.1.3.7.1 The vertical sections of the telescopic sections of the PBB shall be glazed from floor level to full height with laminated and toughened safety glass.

3.1.3.7.2 The thermal transmittance (U-Value) of the glass shall be no more than 3.5 W/m²K and the Solar heat gain coefficient of the glass shall not be more than 0.4.

3.1.3.7.3 The glazing shall comply with applicable parts of SANS 10400 Part N.

3.1.3.7.4 All work shall be designed to accommodate the movements, vibrations, and tolerances of the mechanical units designed to provide at all times a weatherproof environment internally. “Weatherproof” is defined as being the exclusion of both rain, dust, and air. Note that the glass shall not be a primary structural element.

3.1.3.7.5 The glass frames shall be painted to RAL code 9006.

3.1.3.8 PBB Tunnel flooring

3.1.3.8.1 The floor base shall be of marine grade super wood or equivalent. The floor shall be covered with a thin, durable, anti-skid material.

3.1.3.9 PBB Airconditioning

3.1.3.9.1 The PBB shall be supplied with a VRV air-conditioning unit(s) with custom vertical slot diffusers.

3.1.3.9.2 The refrigerant shall be chlorine-free with both a low Global Warming and Ozone Depletion potential.

3.1.3.9.3 The air-conditioning unit must provide PBB conditions between 22 to 24 degrees Celsius with a humidity range of 40–60%. The VRV unit(s) selected shall be of the type already imported or available in the Republic of South Africa.

3.1.3.10 PBB Tunnels ceiling

3.1.3.10.1 The ceiling shall be arctic white. The light fittings shall also be incorporated in the ceiling structure.

3.1.3.11 PBB Tunnels lighting

3.1.3.11.1 Lighting shall have lux levels of 200, Unified glare rating of 22 and Colour Rendering Index of 80.

3.1.3.12 PBB Tunnels vertical movement

3.1.3.12.1 The vertical movement device shall be of the hydraulic type and shall consist of two hydraulic rams.

3.1.3.12.2 This device shall prevent inadvertent or uncontrolled movement of the telescopic sections in any failure event.

3.1.3.12.3 Each assembly shall be independent of the other and capable of supporting the bridge under full design load.

3.1.3.12.4 Vertical movement shall take into account the minimum and maximum doorsill height range of the aircraft types (Code C-F) the bridge is designed to accommodate.

3.1.3.13 PBB Mover/Bogie

3.1.3.13.1 The bogie shall drive the telescopic section over the apron within the specified envelope by non-profiled power-driven solid rubber wheels. Electromechanical drive units shall be used for this application. Both wheels shall be independently driven by AC gear motors.

3.1.3.13.2 The horizontal movement shall be smooth and continuously variable, through the use of variable frequency drives, and proportional to joystick movement. A steer angle of 180 degrees shall be possible.

3.1.3.13.3 The bogie shall be fitted with a back-up system such as a towing hook, capable of connecting to a standard Tug vehicle to allow the manual manoeuvring of the bridge in the event of a system failure.

3.1.3.13.4 The bogie shall be protected by sturdy devices that will allow a certain degree of movement (to eliminate nuisance trips due to apron irregularities) before it causes the drive unit to trip out when it has been driven into an object.

3.1.3.13.5 PBB OEMs shall provide details of all special measures taken to ensure safety of ground handling personnel and equipment such as the sensitivity of the devices around the bogie.

3.1.3.14 PBB Service Staircase and access door

3.1.3.14.1 Service staircase shall be located on the side of the cab that improves safety and reduces risk to aircraft damage.

3.1.3.14.2 It provides access between the passenger boarding bridge and apron for authorised personnel open outwards and be provided with a wired glass window.

3.1.3.14.3 The steps, platforms and intermediate landings of the service stairs shall be self-levelling in the horizontal plane.

3.1.3.14.4 The stairs shall be constructed from aluminium. The stairs, landings and platforms shall be of the positive grip pressed section type.

3.1.3.14.5 The access door shall be fitted with a magnetic lock and be fitted with a heavy duty auto closer. The upper landing shall be illuminated with a dedicated bulkhead luminate.

3.1.3.14.6 The height of the handrailing shall be minimum of 900 millimetres.

3.1.3.14.7 The slope of the service stair should not exceed 38 degrees where possible.

3.1.3.14.8 The landing shall have a kick plate that is at least 100 millimetres from the floor.

3.1.3.14.9 The width of the staircase shall not be less than 750 millimetres, and the rise shall not exceed 200 millimetres while the going shall not be less than 250 millimetres.

3.1.3.14.10 The service stairs shall be designed in accordance with SANS 10400 Part M Stairways.

3.1.3.15 Maintenance Ladder

3.1.3.15.1 The manufacturer will provide a maintenance ladder for access to the roof of the PBB. The ladder must be galvanized or painted with a safety cage at its top.

3.1.3.16 Bridgehead

3.1.3.16.1 General

The bridgehead is located at the front of the bridge - this is the part that docks against the aircraft. It comprises several components, i.e. console, auto levelling system, activated floor, weather doors, upper support, slatted curtains, canopy/canopy closure, and a rotary movement system. The bridgehead shall form a weatherproof interface between the aircraft fuselage and the telescopic section.

The bridgehead shall be equipped with a forward-facing control console located behind laminated glass windows. Operation of the passenger boarding bridge will be accomplished without opening the weather doors. Visibility shall be provided with vision panels in the bridgehead side-coiling curtains and windows located in front and to the left and right of the operator.

3.1.3.16.2 Double leaf weather doors

3.1.3.16.2.1 The manufacturer will provide a maintenance ladder for access to the roof of the PBB. The ladder must be galvanized or painted with a safety cage at its top.

3.1.3.16.2.2 The doors shall be of a heavy-duty type designed specifically to withstand heavy usage and weather.

3.1.3.16.2.3 They shall consist of two glass panels per door in a 70/30 split.

3.1.3.16.2.4 The doors shall be fitted with heavy-duty auto-closers set to keep the door open and equipped with a magnetic lock.

3.1.3.16.2.5 Operating Principle: The auto-closers will work in reverse, applying constant opening force until the magnetic locks are released when the key is turned to the “AUTO” position.

3.1.3.16.3 Canopy

3.1.3.16.3.1 The canopy (accordion-type bellows) shall provide a weatherproof overhead connection between the aircraft fuselage and the bridge head when the bridge is docked. The canopy, when fitted against the fuselage, shall surround both the open aircraft door and the doorway to protect passengers from the elements.

3.1.3.16.3.2 Canopy covering material shall not absorb water, be non-abrasive and tear resistant.

3.1.3.16.3.3 Limit switches shall be incorporated into the canopy closure mechanisms to prevent excessive pressure on the aircraft. Any exposed arms, struts, etcetera should be covered as far as reasonably practical.

3.1.3.16.3.4 The aircraft contact point of the canopy closure shall be a soft material to prevent scratching or damage to the aircraft skin. Designers/manufacturers shall provide details of the measures taken to avoid interference with navigational and other equipment on the aircraft fuselage especially for aircraft that do not conform to the ISO 7718:2017. All details shall be attached.

3.1.3.16.3.5 The canopy shall be engaged or disengaged by selecting or deselecting the “AUTO” position on the key switch.

3.1.3.16.4 Auto Leveller

3.1.3.16.4.1 The auto-leveller shall be engaged or disengaged by selecting or deselecting the “automatic” position on the key switch. The levelling device shall be a rotary sensor which contacts the aircraft shall be located on the right side of the bridgehead in full view of the operator i.e. located inside the canopy. The auto leveller shall be adequately protected and shrouded to prevent interference and or accidental damage. The auto leveller shall be signed to advise passengers to stay clear and not to interfere with the device operation. It shall function reliably in all weather conditions on all specified aircraft regardless of door location, fuselage contour, and aircraft door sill height. It shall not exert stress on the fuselage skin.

3.1.3.16.4.2 In the event of an auto leveller failure or no contact with an aircraft fuselage, an alarm shall sound, and an "Auto Leveller " Warning light shall flash at the console to alert the operator.

The audible alarm shall be located at the console, at the exterior wheel bogey and at the rotunda or fixed walkway.

3.1.3.16.4.3 The auto-leveller circuit must include a sustained travel timer. The timer limits auto-level operation to a time which must be adjustable. If the operation exceeds the set time limit it must trigger a fault condition, upon which the system disconnects all motor power and energizes audible and visual alarms.

3.1.3.16.4.4 The auto-leveller shall comply with requirements 7.1.1 to 7.1.6 of the IATA AHM 922. It shall be engaged or disengaged by selecting or deselecting the “AUTOMATIC” position on the key switch.

3.1.3.16.5 Bridgehead Bumper

3.1.3.16.5.1 The sill edge of the bridge head shall be fitted with a bumper made of weather resistant material. The material of the bumper shall be flexible and non-abrasive to prevent scratching or other damage to aircraft fuselage.

3.1.3.16.5.2 Designers/manufacturers shall indicate what special measures they will be taking to ensure a tight fit against the fuselage without having the risk of any damage to the aircraft. Bumper to have a vertical guide that provides a visual reference to the operator of step height (Aircraft sill to PBB floor).

3.1.3.16.5.3 PBB shall stop automatically prior to reaching the aircraft. A low-weight section of the bridgehead floor that is horizontally moveable against the aircraft equipped with a bumper made of a weather resistant material shall be provided. This moveable floor and bumper shall provide automatic stop with a limited pressure. The bumper shall in any event be fitted with limit/pressure switches to ensure that the maximum pressure against the fuselage can never be exceeded.

3.1.3.16.5.4 The *Contractor* shall provide details of the measures taken to avoid interference of the bumper with navigational and other equipment on the aircraft fuselage especially for aircraft that do not conform to the ISO 7718:2017

3.1.3.16.6 Shutter Curtains

3.1.3.16.6.1 The slats of the shutter curtains shall be manufactured from stainless steel material (min S/S 304) and be guided by a curved track at the bottom and at the top. Depending on the position of the bridge head, these curtains shall either be winded or unwounded from a spring-loaded drum. The slats shall be fitted with viewing panels to ensure that the operator can have an unobstructed view.

3.1.3.16.6.2 The operator’s station shall have an angle of visibility of 270□ horizontally forward.

3.1.3.16.7 Self-levelling floors

3.1.3.16.7.1 At the front of the bridgehead a self-levelling floor shall be provided to ensure a smooth transition between the bridgehead and the telescopic tunnel section. No raised surfaces which may introduce a tripping hazard to the passenger shall be permitted. This self-levelling floor shall be operated and controlled automatically by a level switch and manually by pushbuttons on the control desk.

3.1.3.16.7.2 The aircraft end of the bridgehead shall be equipped with a floor that adjusts to the optimum relative to the aircraft doorsill. The floor shall be actuated and independently adjustable to adapt to all aircraft doorsills. It shall be designed to level automatically and shall be equipped with a manual override control switch.

3.1.3.16.8 Operator desk or table tray

3.1.3.16.8.1 A table desk/tray size ISO A3 shall be installed in the bridgehead for the use of apron service personnel for paperwork etc. This shall be at an angle to prevent placement of beverage containers or any other liquid container.

3.1.3.16.9 Operator console

3.1.3.16.9.1 The console shall be situated on the left-hand side of the bridgehead. The design shall be such that the operator's line of sight can never be obstructed under normal working and operational conditions.

3.1.3.16.9.2 The console shall be mounted on a floor standing cabinet of suitable height. The console shall be designed such that books, files, soft drinks, etc. cannot rest on any of its exposed surfaces.

3.1.3.16.10 Control functions

As a minimum, the following control and monitoring functions shall be provided:

3.1.3.16.10.1 The console Key switch for "off/on/automatic"

3.1.3.16.10.2 Push buttons for "up" and "down"

3.1.3.16.10.3 Push buttons for "left" and "right" (Apron drive)

3.1.3.16.10.4 Proportional joystick fitted with "dead-man" push button for "forward" and "retract" and "left" and "right"

3.1.3.16.10.5 Height indicator

3.1.3.16.10.6 Colour monitor for CCTV camera

3.1.3.16.10.7 E-stop push button (latching type)

3.1.3.16.10.8 Switches for flood lights, bridgehead lights, stair lights and tunnel lights

3.1.3.16.10.9 Key switch for "manual/automatic" (to be situated in the cabinet below the console)

3.1.3.16.10.10 Push buttons related to the automatic docking system shall be provided (if linked)

3.1.3.16.10.11 All push buttons shall be of an industrial type and be shrouded to prevent accidental activation. They shall also be interlocked to prevent simultaneous operation of any conflicting actions and

be of the “dead man” type; i.e. non-latching. Conflicting actions shall be, but not limited to, the following which include “operator assist” functions:

3.1.3.16.10.12 Up/down operation when any limit switch controlling the up/down envelope has been made. Similar for the extend/retract and bridgehead left/right operation

3.1.3.16.10.13 Glass, weather doors can only be opened when auto-leveller is engaged.

3.1.3.16.10.14 Bridge cannot extend/retract with weather door opened.

3.1.3.16.10.15 Bridge cannot extend/retract with canopy extended.

3.1.3.16.10.16 Bridge cannot extend/retract with auto-levellers engaged

3.1.3.16.10.17 Operation of any part of the bridge with the service door open that can potentially cause damage to equipment or injury to people.

3.1.3.16.11 Touch Screen

A touch screen display shall be installed in the console for apron drive type PBB’s. As a minimum the system shall provide:

3.1.3.16.11.1 Indication of position values such as percentage extension of PBB, bridgehead position, rotunda position, wheel position indicator, height, etc.

3.1.3.16.11.2 Informational screens providing operating instructions.

3.1.3.16.11.3 Informational screens providing maintenance instructions.

3.1.3.16.11.4 Identification labels such as boarding bridge number, time and date, etc.

3.1.3.16.11.5 The system shall have a comprehensive self-test capability which monitors the PBB switches and control devices and alerts operators to problems via on-screen messages. The following key PBB components shall be monitored as a minimum:

3.1.3.16.11.5.1 Extend/retract limit

3.1.3.16.11.5.2 Upper/lower limit

3.1.3.16.11.5.3 Bumper limit

3.1.3.16.11.5.4 Bridgehead left/right limit

3.1.3.16.11.5.5 Rotunda left/right limit

3.1.3.16.11.5.6 Emergency stop

3.1.3.16.11.5.7 Low voltage healthy

3.1.3.16.11.5.8 High voltage healthy

3.1.3.16.11.5.9 Auto-leveller healthy

3.1.3.16.11.6 Auto-leveller error

3.1.3.16.11.7 Automatic PBB docking system healthy

3.1.3.16.11.8 Automatic PBB docking system error

3.1.3.16.11.9 Safety shoe activated

3.1.3.16.11.10 Bogie obstructed

3.1.3.16.11.11 Bridge docked

3.1.3.16.11.12 Bridge parked

3.1.3.16.11.13 Weather doors opened

3.1.3.16.11.14 Troubleshooting screens that provide aids for isolating equipment faults and corrective actions.

3.1.3.16.11.15 Pre-positioning screen which allows the operator to select aircraft type for the visual guidance docking system (VGDS), automatic pre-positioning and automatic docking of the PBB.

3.1.3.16.11.16 Maintenance screens that can be used by maintenance personnel to program the maintenance schedules and view I/O diagnostics that can be used to assist with locating problems.

3.1.3.16.11.17 Set-up screens that allow maintenance personnel to set operational parameters.

3.1.3.16.11.18 The system shall provide a permanent record of the last 200 PBB docking operations. The records shall be in the format of a status log with a time and date stamp for each status change.

3.1.3.16.11.19 The system shall be accessible by maintenance password and its output shall be available on screen, as a printout, downloadable via a laptop, available for download over a web application and viewable by authorised personnel through a cellular phone application.

3.1.3.16.11.20 All control and display schemes shall be submitted to the specialist for approval prior to implementation.

3.1.3.16.12 Additional Safety Features

3.1.3.16.12.1 E-stop push button located near main power pack and easily accessible from the apron.

3.1.3.16.12.2 2 stage limit switches for both the “upper/lower” limits

3.1.3.16.12.3 2 stage limit switches for both the “extend/retract” limits as well as the mechanical stops.

3.1.3.16.12.4 2 stage limit switches for the bumper to ensure that the maximum arc can never be exceeded.

3.1.3.16.12.5 Proximity switches to sense distance from an aircraft fuselage. Once a minimum distance from the fuselage has been sensed, the horizontal speed will be limited to 25% of maximum.

3.1.3.16.12.6 With the auto-leveller engaged, no manual movement control of the bridge will be possible.

3.1.3.16.12.7 The bridge head shall be delineated by two amber lights situated on its roof.

3.1.3.16.12.8 Any movement of the passenger loading bridge shall be accompanied by an audible alarm and a red flashing (not rotating) beacon.

3.1.3.16.12.9 Auto leveller failure and safety shoe “E-stop” activation to have unique audible alarms.

3.1.3.16.13 Credential-Based Operator Authorization System

3.1.3.16.13.1 To prevent the usage of the bridge by unauthorised persons, the enablement of the bridge shall be by means of a proximity card reader or access code/pin activated panel (Details to be provided by ACSA IT division). Airbridge design to accommodate this equipment and integration thereof.

3.1.3.16.14 External CCTV Camera

3.1.3.16.14.1 Colour video camera positioned such that the bogie, the area around the bogie and area below the rotunda can be monitored by the operator. The CCTV camera shall be fitted with an auto-iris and weatherproof casing. Typical range of view should be 120°.

3.1.3.16.14.2 A floodlight shall be provided to illuminate the drive column wheel bogey and rotunda area. This light shall be located under the telescopic tunnel section.

3.1.3.16.14.3 The base plate for the fixture of the camera shall be fitted to the lower moving part of the rotunda constantly focusing on the bogie such that the bogie and the area around the bogie can be monitored by the operator.

3.1.3.16.15 Internal CCTV Camera

3.1.3.16.15.1 Colour CCTV camera(s) to be in the cabin that captures Auto-leveller, aircraft doorsill, safety shoe and operator panel. Camera to be connected to local DVR in control panel integrated with to ACSA IT Cloud solution and with ability to integrate to existing Infrastructure Monitoring Control System (IMCS).

3.1.3.16.16 Safety Shoe

3.1.3.16.16.1 The safety shoe will be a precaution to prevent aircraft damage in the event of a failure of the auto-leveller and therefore shall be required as a standard safety item.

3.1.3.16.16.2 The safety shoe shall be designed such that the operator places the shoe on the floor of the bridgehead under the aircraft door.

3.1.3.16.16.3 The safety shoe shall be easily replaceable (plug-and-play).

3.1.3.16.16.4 PBB to have the capability to detect the safety shoe presence in its storage position. In the event the aircraft lowers and the aircraft door makes contact with the safety shoe, the auto-level alarm shall activate, if it is not already, and the PBB shall automatically lower until such time as the door is no longer in contact with the safety shoe.

3.1.3.16.16.5 Single activation operating parameters shall be as follows:

Action	Bridge response	Distance (mm)
Contact 1	Lower	100
Contact 2	Lower	100
Contact 3	Lower	100
Contact 4	E-stop activated	0

3.1.3.16.16.6 Continuous activation operating parameters shall be as follows:

Action	Bridge response	Distance (mm)
Continuous activation	Lower by prescribed distance and then E-stop activated	150

3.1.3.16.17 Rotunda

3.1.3.16.17.1 The rotunda effectively forms the weatherproof connection between the telescopic section and the fixed links (via the intermediate vestibule). The primary function of the rotunda shall be to provide a pivoting point for the telescopic section and to support the full operating envelope of the apron drive. As the main pivot for passenger boarding bridge, the rotunda assembly shall allow the passenger boarding bridge to rotate a total of 175 degrees, 87 ½ degrees clockwise and 87 ½ degrees counter- clockwise from a centreline specified by the project. The operation envelope will be specified by the project and bridge slope, extend/retract and operational swing limits shall be located on the rotunda assembly to achieve this.

3.1.3.16.17.2 The interior finishes and lighting of the inside of the rotunda shall be as specified for the telescopic and fixed sections.

3.1.3.16.17.3 In addition, the rotunda shall have a supporting concrete column. The concrete column and its foundations shall be designed to support all imposed static, dynamic, operational and wind loads. The PBB manufacturer shall provide the galvanised steel bolts, base plate, etc. Base plates and holding down bolts shall be cast into the concrete foundation. The PBB manufacturer shall perform all quality control functions for the correct geometrical layout and positioning of the foundation.

3.1.3.16.17.4 The supporting column shall also support the fixed portion of the connection with the terminal building. The exact weight to be supported by the column due to this as well as the fixing details will be provided after tender stage.

3.1.3.16.17.5 To sustain a water-tight course of the rotunda, vertically mounted roller shutter curtains shall be provided.

3.1.3.16.18 Swing Limits

3.1.3.16.18.1 Limits to PBB movement will be staged. Limits to PBB travel will be set / activated using software and / or electrical limit devices followed by mechanically activated limit switches.

3.1.3.16.18.2 Activation of limits will prevent PBB motion in the direction of the activated limit. The field adjustable, over-travel swing limit switches are located on the rotunda (these switches are adjustable to meet local conditions). Limits and alarms to be configured in the following manner:

Alarm Sequence	Description	Effect
Alarm 1	Alert operator that normal operating envelope has been reached.	Visual indication on HMI
Alarm 2	Alert operator that extended operating envelope has been reached.	PBB drive in that direction is disabled with the PBB still being able to move in the opposite direction. Visual indication on HMI
Alarm 3	Alert operator that mechanical	Activation of the ultimate or

Alarm Sequence	Description	Effect
	swing limit has been reached.	mechanical swing limit switch will disable all control power. Maintenance personnel will be required to enable control power and move the PBB away from the swing limit. Visual indication on HMI and Audio alarm activated

3.1.3.16.18.3 Rotunda frame shall be equipped with rubber bumper type mechanical stops, or electrical limit switches, to prevent collapse of telescoping tunnel sections.

3.1.3.16.19 Electrical

3.1.3.16.19.1 All electrical designs and components used shall comply with all the gazetted Standards in the Electrical Installations Regulations and the Electrical Machinery Regulations of the Occupational Health and Safety Act. Furthermore, imported electrical components shall comply with the requirements of the South African Regulator for Compulsory Specifications.

3.1.3.16.19.2 Available site power is 380V/400V, 3-phase, 50Hz or 220V, single-phase, 50Hz.

3.1.3.16.19.3 All PBBs shall be connected to essential power.

3.1.3.16.19.4 The PBB Control system shall be provided with a suitable UPS (Min 15kva) to enable a controlled shutdown of electronics in the event of power failures.

3.1.3.16.20 Labelling

3.1.3.16.20.1 Labels shall be provided for every panel to describe the duty of, or otherwise identify every instrument, relay, push button, indicator lamp or items of equipment mounted internally and externally. The wording shall be in English, clear, concise and unambiguous and shall be approved by ACSA Chief Electrical Engineer before manufacture. Each label shall be permanently secured to the panel surface immediately adjacent to the item to which it refers.

3.1.3.16.20.2 Internally and externally fitted labels shall be finished in white with engraved letters and numbers fitted with black laminated material such as Traffolyte or equivalent. Labels shall also be fitted to provide warnings or reminders of dangerous or potentially dangerous circumstances. The manufacturer's name, if incorporated on panels shall be in the letters and style to the approval of the Employer.

3.1.3.16.21 Cabling

3.1.3.16.21.1 Power and data cables shall be installed in separate conduit and or cable racks as applicable.

3.1.3.16.22 Connection/Terminal Boxes and DB Boxes

3.1.3.16.22.1 Power and data cables shall be terminated in separate connection/terminal boxes (junction boxes) as applicable.

3.1.3.16.22.2 All connection/terminal boxes shall be weatherproof and DB boxes placed outside shall be IP66 rated and corrosion proof.

3.1.3.16.23 Interface Specifications

3.1.3.16.23.1 The PBB PLC or controller shall be capable of the following communication protocols:

3.1.3.16.23.1.1 Modbus

3.1.3.16.23.1.2 BacNet

3.1.3.16.23.1.3 Profinet/Profibus

3.1.3.16.23.1.4 OPC UA

3.1.3.16.24 Hardware

3.1.3.16.24.1 No programming should be required to obtain device configuration and dynamic data from devices into a centralized management and configuration system.

3.1.3.16.24.2 Any control equipment must support a non-vendor specific fieldbus or controller level communications network. The network must support multiple simultaneous communication services such as: - Master-Slave relation

3.1.3.16.24.2.1 Peer to Peer relation

3.1.3.16.24.2.2 Change of state/exception-based data transmissions.

3.1.3.16.24.2.3 Device configuration

3.1.3.16.24.2.4 Data broadcast facilities

3.1.3.16.25 PLC/Controllers

3.1.3.16.25.1 PBBs shall be supplied with two PLCs or controllers. One shall be for duty and one for standby. The standby PLC/Controller shall be supplied with the duplicate program to enable a switch in case of duty PLC/Controller failure.

3.1.3.16.26 Automatic Docking System Interface

3.1.3.16.26.1 PBB contractor shall ensure that there is a panel for interface of new PBBs with existing ADS on both A3 and A4.

3.1.3.16.27 Exchange of information between ADS and PBB

3.1.3.16.27.1 The communication protocol and message exchanges between the PBB and the ADS shall be determined by the PBB Installer in conjunction with the site installed ADS OEM or authorised Agent and ACSA Maintenance Engineering Personnel. These shall be determined prior to construction of the operator console.

3.1.3.16.28 Minimum commissioning and Operational Tests

3.1.3.16.28.1 Commissioning and operational test shall be full functional tests that demonstrate compliance with the requirements of this document. These tests shall include but not be limited to:

3.1.3.16.28.1.1 Demonstration of compliance to all aspects of IATA AHM 922 and other applicable norms, standards or design requirements.

3.1.3.16.28.1.2 Demonstration of correct functioning of all interlocks, limits and safety features.

3.1.3.16.28.1.3 Demonstration of the correct functioning of the pre-positioning feature and interface with the ADS.

3.1.3.16.28.1.4 Demonstration of the correct interfacing with the IMCS.

3.1.3.16.28.2 During Operational tests, the Contractor shall prove that the Works operates at the required availability for 10 consecutive days. At the end of each day, the Contractor shall compile a report that includes all fault conditions monitored in the PLC logs and prove to the Engineer that the Works have satisfied the required availability for that day. Should the Contractor not be able to prove the required availability for a day, the operational testing period shall reset to day 1.

3.1.3.16.29 Minimum Applicable References/ Standards

Standard Number/Act	**Description**
IATA AHM 922	Basic Requirements for Passenger Boarding Bridge Aircraft Interface.
SANS 10142-1	Wiring of premises Part 1: Low Voltage Installations.
SANS 10400	Application of the National Building Regulations
SANS 10044	Standard for Welding
SANS 10160-3	Basis of structural design and actions for buildings and industrial structures Part 3: Wind Actions
NFPA 415	Standard on Airport Terminal Buildings, Fuelling Ramp Drainage and loading walkways.

SANS 10400, 2001 (and all South African National Standards all related to general principles for design and construction of buildings),) and Local and Municipal regulations for Building Codes and Regulations

SANS 10270 (design and construction of machines with mechanical moving parts).

SANS 1414(safety requirements for machinery and equipment, ensuring that all mechanical components are safe for operation)

SANS 10142 (wiring of electrical installations and for ensuring that all electrical systems in the mechanical machines meet safety and performance requirements.)

SANS 60079: (ensuring that all electrical components in explosive environments are safe for use.)

Occupational Health and Safety Act (OHSA) (health and safety in the construction and operation of the passenger bridge).

SANS 10400 **(**accessibility to ensure that the bridges are designed to accommodate individuals with disabilities.

Local Environmental Regulations (noise and pollution controls relevant to the operation of the passenger bridge are considered).

Civil Aviation Regulations: Ensure compliance with regulations set by the South African Civil Aviation Authority (SACAA) regarding structures at the airports and their potential impact on aircraft operations and safety.

Registered professional engineers to ensure compliance with engineering relevant standards including structural design, materials, and load calculations and selection mechanical or electrical components like motors, gearboxes.

Implementation of quality control measures during construction to ensure compliance with all standards and regulations. This must include inspections, testing of materials, and certification of work.

A3 &A4 passenger loading bridges general requirements not limited but include.

- Design for easy access to mechanical and electrical components for maintenance.
- Specify a maintenance schedule and procedures.
- Specify a list of spares and equipment required to be stored for maintenance.
- Design must include a desk phone for communication with IMC helpdesk and camera for security.
- The service doors and maintenance access door must be fitted with IT access control system.
- The contractor must specify warranty terms for the bridge materials and outline a maintenance plan to ensure the bridge remains in good condition over time.

Detailed Engineering Design & Technical Documentation

- Develop conceptual designs for the project, including automation systems for the bridge installation.
- Prepare detailed engineering drawings and system integration schematics, ensuring compliance with industry standards.
- Specify materials, equipment, and technology requirements, considering longevity, reliability, and operational efficiency.
- Provide design validation and risk mitigation strategies, including Failure Mode and Effects Analysis (FMEA).

Quality Assurance & Compliance Audits

- Establish a quality control plan for construction execution, ensuring design integrity.
- Conduct inspections and audits during construction phases to verify compliance with industry standards.
- Perform safety and performance testing for automation systems, fixed tunnel construction, and installation of the movable bridge.
- Issue certification and final acceptance reports upon successful implementation of each project (bridge).

2.5 Project Close Out

- Close-Out Documentation, Including As-Built Report (List of Assets) & Drawings (CAD & PDF format), Operating, Instruction and Maintenance Manuals
- Close Out the Project in line with Employer's Asset Management procedure which shall include amongst others.
- A list of assets created in accordance with the ACSA Data Dictionary. (ACSA will provide the Data Dictionary)
- The list of assets must contain all the details required to complete the ACSA Capitalisation form, these are:
- Date new asset was complete and came into use.
- List of assets to be disposed.
- New asset: what is the expected life span of this equipment/infrastructure - consider when deciding under which asset class to add asset.
- Provide: Serial numbers, Make and model, Asset Description, Cost Centre
- Also inform if there are different components (items that have a different life span)
- Bar codes to be added, will be done after all assets has been identified. Barcodes available from ACSA Finance office.

2.6 Post-Implementation Support & Knowledge Transfer

- Provide training programs for airport depot personnel on new systems and operational safeguards.
- Develop maintenance and operational guidelines for newly integrated technologies.
- Offer on-call technical advisory support during the initial months of operation.
- Prepare final project documentation and lessons-learned reports for continuous improvement.

    - Photos with GPS coordinates are required. See example below.

PART C3.2: MANAGEMENT OF THE WORKS

1. Works co-ordination and work progress meetings – monthly

a) Airports Company South Africa Limited will convene monthly project progress meetings at which representatives of the Contractor and Airports Company South Africa Limited must be present. The Contractor will record minutes of the meetings. The meetings will be held at the Employer's site, and the venue will be communicated at least a week in advance. The minutes to be distributed to all parties within seven working days after the meeting was held.

2. Health and safety risk management

a) The contractor will be required to submit the progress report on the project and highlighting any risk that may hamper or delay the progress.

b) The contractor shall comply and accept the health and safety requirements contained the section for Contract Data: C5.3: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT.

c) Within 7 days of the tender award, the Contractor shall submit a safety file for approval by the ACSA Safety Department. This file will be applicable to the Scope of Work detailing all relevant safety documentation, procedures and risk assessments – prior to the commencement of work.

3. Environmental constraints and management

a) The contractor to ensure that the design and his associated activities (installation, disposal of waste, noise, pollution etc.) complies with ACSA environmental policy. The contractor is required to report monthly on any environmental issues that affect the project or affected by project.

4. Quality assurance requirements

a) Within the period stated in the Contact Data, the Contractor submits his complete quality control and assurance system (with all quality control and assurance procedures and manuals) for review and acceptance by the Employer. The manual includes pro-forma checklists for all requirements of the Contractor's quality control and assurance program and those called for in the Scope.

b) Acceptance by the Employer of the Contractor's quality assurance programme, quality plans and/or inspection and/or test plans, or of those of his Subcontractors will not relieve the Contractor of his obligation to provide services which meet the requirements of the Contract.

5. Programme

a) The programme as per Tender Submission. The contractor will be required to submit the revised programme within two weeks after the start date. The contractor needs to factor the risks such as lead times, working on the live environment etc.

6. The Contractor's Personnel

a) The Contractor's personnel as per Tender Submission. Contractor to submit the organogram in conjunction with the subcontractor personnel. Any change in personnel need to be approved by Employer Project Manager.

7. Insurance provided by the Employer

a) Refer to the insurance causes contained in Part C1.D of the Contract.

8. Provision of bonds and guarantees

a) Without limitation to the Employer's rights under the Contract, the Employer may withhold payment of amounts due to the Contractor until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the Contractor by the Project Manager to receive and accept such bond or guarantee. Such withholding of payment due to the Contractor does not affect the Employer's right to termination stated in this contract.
b) Records of Defined Cost, payments & assessments of compensation events to be kept by the Contractor.
c) The contractor shall present his intended format and filing of records to the employer for approval and amendment. The Project Manager shall be provided with these documents in hard copy & electronically. All relevant documentation shall be treated with the appropriate levels of importance in order to facilitate a robust audit trail of expenses and associated works. All original documents must be kept and submitted.

9. Training workshops and technology transfer

a) The contractor is required to make provision for training workshops and technology transfer sessions during the course of the project with reference to the following:
   - Location and operation of all critical infrastructure (electrical & control) involved to the employer's maintenance team
   - Generator sets operation and symptom identification to the employer's selected individuals.

10.* Engineering and design of the *works

a) *Employer*'s design
   - Design and specification are as per tender submission with associated documentation.

b) Parts of the *works* which the *Contractor* is to design.
   - Contractor's design and installation plan which is to be submitted to the Project Manager for his acceptance and for the As built drawings to be prepared by the Contractor

c) Procedure for submission and acceptance of *Contractor*'s design
   - The contractor's design as well as Employer specification and installation requirements as per tender submission will be used for this project. The As-built drawings to be prepared by the Contractor and submitted to the Project Manager for acceptance.

d) Use of *Contractor*'s design
   - The contractor to ensure adherence to the specification as per tender documents and built the final product for purpose that is intended for.

e) Equipment required to be included in the *works.*
- The contractor may use any electrical equipment or tool to ensure the proper completion of works. The list of all tools to be used onsite to be presented as the part of safety file including the safe operating procedures for those tools.

f) As-built drawings, operating manuals and maintenance schedules
- The contractor to provide As-built drawings, operating manuals and maintenance as stated in the Bill of Quantities as the part of the hand-over documentation.

g) FIDPM
- The project implementation to be in line with the Framework for Infrastructure Delivery and Procurement (FIDPM).

11. Procurement

a) Personnel: Minimum requirements of people employed on the Site
- As per the Contractor's requirements to complete the Works.

b) Subcontracting: Preferred subcontractors
- No preferred subcontractor or supplier by Employer

c) Limitations on subcontracting
- The Contractor may not subcontract more than 20% of the Works where a subcontractor is not an EME.

d) Plant and Materials
- Plant & Materials provided "free issue" by the *Employer*
- Plant & Materials storage and safeguard is the responsibility of the Contractor.
- The contractor to clearly state the lead times on Contractor's procurement of Plant and Materials.

e) Contractor's procurement of Plant and Materials
- Contractor to ensure that the material procured are compliant with the specification on the tender document, where possible the procurement preference should be given to Black people suppliers.

f) Tests and inspections before delivery
- The Contractor shall ensure that the generators and electrical supply equipment will have undergone all applicable factory acceptance and quality tests prior to delivery. Certification to be provided to the Employer accordingly.

g) Contractor's Equipment (including temporary works)
- The Contractor shall ensure that all equipment is clearly marked and to be safely secured at all times when not in use.

h) Construction
- Temporary works, Site services & construction constraints
    - It will be a contractor's responsibility to provide a secure environment for their equipment. The contractor's personnel will be restricted to the contractor's own established site and the agreed area of work. The contractor's personnel will not be permitted at the Airside/restricted areas without the necessary permits and reflective jackets.
- Employer's Site entry and security control, permits, and Site regulations.

- An induction course must be attended by the contractor and all personnel who would be involved on site. The contractor will need to make own arrangements for staff full medicals. And schedule with the ACSA's project manager for the induction course. Security arrangements would be discussed at the induction meeting and should be strictly adhered to. It should be noted that ACSA premises subscribe to National Key Point Regulations, every person who conduct works at the Airport will be subjected to security vetting. ACSA will not be held liable should one of the contractor member fail SAPS vetting process.
- All airside services are in restricted areas and access-controlled areas, accordingly it is crucial for the Contractor to note that Cape Town International Airport is a National Key Point and governed as such.
- The Contractor shall be compensated for costs relating to Employer required permits.
- The Contractor must ensure that he/she is, at all times, familiar with the Employer's safety and security requirements relating to permits in order for no services to be delayed as a result thereof. This includes the permit application process (available to the Contractor upon request).
- The Contractor shall have no claim against the Employer in the event that a permit request is refused for reasons not attributable to the Employer.
- The following table is not all inclusive, but is provided for illustration purposes:

Permit	**Required by/for**	**Department**
AVOP – Airside Vehicle Operator permit	All drivers of vehicles on airside	ACSA Safety
Airside Vehicle Permit	All vehicles that enter airside	ACSA Safety
Basement Parking permit	All vehicles allowed to enter the delivery basement	ACSA Parking
Personal permit	All persons employed on the airport	ACSA Security
Cell phone permit	All persons taking cell phones to airside	ACSA Security
Lap top permit	All persons taking lap top computers to airside	ACSA Security
Camera permit	All persons taking cameras or camera equipment to airside	ACSA Security
Hot Works Permit	All welding and/metal cutting services	ACSA Safety / Fire & Rescue

- Proof of having attended the airside induction training course is required for all personal permit applications. Persons applying for an AVOP must provide proof of having attended an AVOP course. Fees are levied for these courses. Fees are further levied for all permit renewals and refresher courses - where applicable.
- Use of cell phones on airside is not permitted unless the user is in possession of an appropriate Airport permit for the device. Cell phone permit issuing authority lies with the ACSA Security department.
- The Contractor shall not be allowed to use two-way radios at on the Employer's Premises unless these radios are of the type as approved by the ACSA IT department and are intrinsically safe.

Airport Training Courses

a) AIT (Airside Induction Training)
Initial – R 570.00 Excl. VAT
Refresher – R 416.00 Excl. VAT

b) AVOP (Airside Vehicle Operator Permit)- Required for driving on Airside.
Initial – R 596.00 Excl. VAT

Refresher – R 416.00 Excl. VAT

c) General Security Awareness Training – R741 (Excl. Vat)

i) Restrictions to access on Site, roads, walkways and barricades

- The Contractor shall protect the site properly and shall so arrange his operations that the minimum danger and inconvenience is caused to airport operations. For this purpose, he shall, inter alia, provide and maintain sufficient signs, lights, barricades, fencing and guarding as may be necessary or required by Airports Company South Africa Limited or by any act, regulation or statutory authorities. add project-specific requirements in this section.

j) People restrictions on Site; hours of work, conduct and records.

- It is expected that contractors wear visible company uniform or reflector jackets with contractor name there-on when entering the premises as a form of identification. Permits to be displayed at all times whilst on site.
- Proper inspections to be conducted daily on completion of day's work to ensure no Foreign Object Debris (FOD) e.g. screws, nut, wires, papers, insulation taps etc. are left on the tarmac or any manoeuvring area. Any damages or fatalities resulted due to Contractor's negligence on FOD management, the Contractor will be held liable for such action.

k) Title to materials from demolition and excavation

- The contractor will be responsible for removal and disposal of the old loading bridges.

l) Contractor's Equipment

- Contractor to keep record of equipment onsite, service history etc. and keep a file onsite.

m) Equipment provided by the Employer.

- Not Applicable

n) Site services and facilities provided by the *Employer.*

- The Contractor shall be entitled to use such supplies of electricity and water as may be available on the Site for the purpose of the Works and at his own expense, shall provide any apparatus necessary for such use. The Contractor shall notify ACSA of any equipment or facility, which will be a consumer of electricity and water. The Contractor shall provide everything else necessary for Providing the Works".

o) Facilities provided by the *Contractor*

- Facilities e.g. storage, site offices, vehicle, equipment provided by the contractor should be safeguarded by the contractor during the construction and be removed off site upon the completion of the contract.

p) Existing premises, inspection of adjoining properties and checking work of Others

- All operations required in connection with the Agreement shall, as far as the provisions of the Agreement permit, not unnecessarily or in an improper manner encroach upon the use of airport facilities.
- The contractor is to take cognizance that the airport is used by others and other contractors may be on site for unrelated projects/services.

q) Setting out of the *works*

- Safety measures to be adhered to according OHS Act. Adhere to ACSA airside safety requirements regarding equipment, vehicles, and personnel operating on the airside.
- Full risk analysis on working on height, next to aircraft and airside and mitigation thereof to considered as part of safety file requirements.
- Contractor to ensure that other Underground services, other existing services, cable and pipe trenches and covers are identified to prevent any disruption to these services due to contractor's activities.
- Contractor to take necessary steps to control noise, dust, water and waste during his/her activities onsite.

r) Construction requirements
- The ACSA electrical team will facilitate this tie-in connection with reference to the notification of works to relevant stakeholders and the switching procedures.

s) Completion, testing, commissioning and correction of Defects (Work to be done by the Completion Date)
- All work to be done by the Contractor shall be completed by the Completion Date.
- The Project Manager cannot certify Completion until all the has been completed and is also free of Defects which would have, in his opinion, prevented the Employer from using the works and Others from doing their work.

t) Use of the works before Completion has been certified
- The Employer may use any part of the works before Completion has been certified but if he does so he takes over the part of the works. Any defect must be attended to as stipulated in the defect clause.

u) Materials facilities and samples for tests and inspections

- Not applicable

v) Commissioning

- The contractor to submit the commissioning procedures and plan to the Project Manager for approval. The commissioning procedure and plans will be adhered to during commissioning.

w) Start-up procedures required to put the *works* into operation

- The contractor to ensure that he complies with all ACSA security, safety, environmental and operational requirements prior to the commencement of works complete accordingly.

x) Take over procedures
- The works will be handed over partially or fully once commissioned and certified by Project Manager. The commissioning should be witnessed by both ACSA representative and the contractor representative.

y) Access given by the *Employer* for correction of Defects
- The Project Manager arranges for the Employer to allow the Contractor access to and use of a part of the works which has been taken over if needed to correct a Defect. After the works have been put into operation, the Employer may require the Contractor to undertake certain procedures before such access can be granted.

z) Performance tests after Completion
- The works performance will be checked against the design parameters for the duration stipulated in the warranty period. Any deviation to the performance will be rectified by the contractor at their own costs.

aa) Operational maintenance after Completion
- Maintenance manuals and training will be provided by the contractor on completion of works.

12. Plant and Materials standards and workmanship

a) Investigation, survey and Site clearance

- Contract to ensure that a thorough inspection and clearance is conducted prior commencement of work of any other services that might be impacted by contractor's activities.

b) Building works

- Product specification and installation standard to be compliant with National Building Regulations and local authority requirements including ICAO or FAA standards.

c) Civil engineering and structural works
- *SANS*

d) Electrical & mechanical engineering works.
- *All parts and installations should comply with the relevant:*
  - SANS standards
  - OSH Act,
  - *ICAO: Annexure 14*
  - ICAO: Aerodrome Design Manual,
  - Federal Aviation Administration (FAA)

e) Process control and IT works
- Applicable standards

PART C3.3: APPLICABLE STANDARDS

All equipment and services supplied shall comply with the standards as indicated in Part C3.1 & Part C3.2.

PART C3.4: LIST OF TENDER DRAWINGS

Refer to Annexure C3.4.

Part C4: Site Information

Document reference	Title	No of pages
C4	Site Information	1
	Total number of pages	1

Part C4: Site Information

The site of the works is Cape Town International Airport.

The works shall be conducted on airside and landside, requiring hands-on management of the construction work, with consideration of the safety and security.

The airside is a restricted area with stringent access control measures put in place. The Contractor is reminded that this is a National Key Point and as such must adhere to all airport's rules and regulations regarding health safety, environment, security, fire and access control.

Figure C4: Aerial View of Cape Town International Airport

Part C5: Annexures

Item #	Reference	Description
1.	Annexure C5.1	ACSA Generic Occupational Health and Safety Specification
2.	Annexure C5.2	ACSA Baseline HIRA
3.	Annexure C5.3	Occupational Health and Safety Agreement
4.	Annexure C5.4	Environmental Terms & Conditions
5.	Annexure C5.5	ACSA Construction Environmental Management Plan
6.	Annexure C5.6	Contractor's Installation Conditions & House Rules
8.	Annexure C5.7	POPIA Agreement

9.	Annexure C5.8	Government's Programme for Broad-Based Black Economic Empowerment
10.	Annexure C5.9 (attached separately)	ACSA CAD Standards
11.	Annexure C5.10 (attached separately)	Framework for Infrastructure Delivery and Procurement (FIDPM)
11.	Annexure C5.11 (attached separately)	Project Specification

Part C5.1: ACSA Generic Occupational Health And Safety Specifications

Project: Replacement of Diesel Generators at Cape Town International Airport

TABLE OF CONTENTS

24. Demolition Work
25. Scaffolding
26. Suspended Platforms
27. Explosive Actuated Fastening Devices
28. Cranes
29. Lifting Equipment, Tackle, Material Hoist and Cranes
30. Construction Vehicles & Mobile Plant
31. Electrical Installations and Machinery on Construction Sites
32. Use of Temporary Storage of Flammable Liquids on Construction Sites
33. Housekeeping and General Safeguarding on Construction Site
34. Stacking and Storage on Construction Sites
35. Fire Precautions on Construction Sites
36. Construction Employees' Facilities
37. Ladders
38. Pressure Equipment
39. Employees Exposed to Excessive Noise
40. Public Safety and Security
41. Night Work
42. Hot Work
43. Hired Plant and Machinery
44. Road Construction Work
45. Edge Protection and Penetration
46. Batch Plants
47. Confined Space Entry
48. Liquor, Drugs, Dangerous Weapons, Firearms
49. Internal/External Audits
50. Penalties

INTRODUCTION

In terms of the Construction Regulation 5(1) b the client, is required to compile a Health & Safety specification for any intended project and provide such specification to any prospective contractor and designers. The contractor, on appointment shall submit a Health & Safety plan which shall address the requirements of this specification.

This specification objective is to ensure that the contractor(s) entering into a contract with ACSA achieve an acceptable level of OH&S performance. This document forms an integral part of Project Information and the contract. Principle and other contractors should make it part of any contract that they may have with their contractors and /or suppliers.

Compliance with this document does not absolve the client from complying with minimum legal requirements and the client remains responsible for the health & safety of his employees and those of his mandatories. ACSA reserves the right to audit, monitor and where necessary regulate the site work activities of any principle contractor or appointed subcontractor as per Construction Regulation 5(1) (o) and section 5 of this document.

1. SCOPE

This Specification is intended for all ACSA Service Providers.

2. DEFINITIONS

The definitions as listed in the OHS Act and Construction Regulations 84 of 7 February 2014 shall apply. Therefore all references to the old Construction Regulations shallchange to the new Construction Regulations.

Client: means any person for whom construction work is being performed.

Principal Contractor: means an employer appointed by the client to perform construction work

Contractor: means an employer who performs construction work;

Construction work: means any work in connection with,

- the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition.

  to a building or any similar structure; or

- the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

Competent person: means a person who,

a) has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and

b) is familiar with the Act and with the applicable regulations made under the Act;

Designer: means

a) competent person who

   i. prepares a design;

ii. checks and approves a design; or

iii. arranges for any person at work under his or her control to prepare a design

iv. including an employee of that person where he/she is the employer or

v. designs temporary work, including its components,

b) an architect or engineer contributing to, or having overall responsibility for a design;

c) a building services engineer designing details for fixed plant;

d) a surveyor specifying articles or drawing up specifications;

e) A Contractor carrying out design work as part of a design and building project; or

f) an interior designer, shop-fitter or landscape architect;

Fall prevention equipment: means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guardrails, screens, barricades, anchorages or similar equipment;

Fall arrest equipment: means equipment used to arrest a person in a fall, including personal equipment such as body harness, lanyards, deceleration devices, lifelines or similar equipment.

Hazard: means a source of or exposure to danger

Hazard identification: means the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed

Risk assessment: means the process contemplated in paragraph10 of the specifications.

Excavation work: means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

Ergonomics: means the application of scientific information concerning humans to the design of objects, systems and the environment for human use in order to optimise human well-being and overall system performance;

3. NOTIFICATION OF CONSTRUCTION

(Construction Regulation 4)

The Principal Contractor who intends to carry out any construction work must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2 if the intended construction work will—

(a) include excavation work;

(b) include working at a height where there is risk of falling;

(c) include the demolition of a structure; or

(d) Include the use of explosives to perform construction work.

4. DUTIES OF THE PRINCIPAL CONTRACTOR AND CONTRACTOR

(Construction Regulation 7)

The Principal Contractor must:

(a) Provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications. The plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the Principal Contractor as work progresses;

(b) Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and this specification, which must be made available on request to an inspector, the client, the client's agent or Contractor; and

(c) On appointing any other Contractor, in order to ensure compliance with the provisions of the Act—

i. Provide contractors who are tendering to perform construction work for the Principal Contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;

ii. Ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;

iii. Ensure that no contractor is appointed to perform construction work unless the Principal Contractor is reasonably satisfied that the contractor that he/she intends to appoint, has the necessary competencies and resources to perform the construction work safely;

iv. Ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;

v. Appoint each contractor in writing for the part of the project on the construction site;

vi. Take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site;

vii. Ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the Contractor and Principal Contractor, but at least once every 30 days;

viii. Stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the Principal Contractor's health and safety plan or which poses a threat to the health and safety of persons;

ix. Where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely; and

x. Discuss and negotiate with the contractor the contents of the health and safety plan and must thereafter finally approve that plan for implementation;

(d) Ensure that a copy of his or her health and safety plan, as well as the contractor's health and safety plan is available on request to an employee, an Inspector, a Contractor, the Client or the Client's Agent;

(e) Hand over a consolidated health and safety file to the client upon completion of the construction work and must, in addition to the documentation include a record of all drawings, designs, materials used and other similar information concerning the completed structure;

(f) In addition to the documentation required in the health and safety file, include and make available a comprehensive and updated list of all the Contractors on site accountable to the Principal Contractor, the agreements between the parties and the type of work being done; and

(g) Ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

The Principal Contractor must take reasonable steps to ensure co-operation between all contractors appointed by the Principal Contractor to enable each of those contractors to comply with this specification.

No contractor may allow or permit any employee or visitor to enter the site, unless that employee or visitor has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry and must ensure all have the necessary personal protective equipment.

The Contractor must prior to performing any construction work:

(a) Provide and demonstrate to the Principal Contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the client's health and safety specification. The aforementioned plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the contractor as work progresses;

(b) Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and this specification, and which must be made available on request to an Inspector, the Client, the Client’s Agent or the Principal Contractor;

(c) Before appointing another contractor to perform construction work, be reasonably satisfied that the contractor that he/she intends to appoint has the necessary competencies and resources to perform the construction work safely;

(d) Co-operate with the Principal Contractor as far as is necessary ensuring all comply with the provisions of the Act; and

(e) As far as is reasonably practicable, promptly provide the contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where the contractor appoints another contractor to perform construction work, the duties determined in **section 5** of this document applies to the contractor as if he/she were the Principal Contractor.

A Contractor must at all times keep records of the health and safety induction training and such records must be made available on request to an inspector, the client, the client’s agent or the principal contractor.

A Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

5. MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK

(Construction Regulation 8)

The Principal Contractor must in writing appoint one full-time competent person as the Construction Manager with the duty of managing all the construction work on a single site, including the duty of ensuring Occupational Health and Safety compliance, and in the absence of the Construction Manager an alternate must be appointed by the Principal Contractor.

The Principal Contractor must upon having considered the size of the project, in writing appoint one or more assistant Construction Managers for different sections thereof: Provided that the designation of any such person does not relieve the Construction Manager of any personal accountability for failing in his or her management duties in terms of this regulation.

No Construction Manager appointed under paragraph 6 above may manage any construction work on or in any construction site other than the site in respect of which he/she has been appointed.

A Contractor must, after consultation with the client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site.

No Contractor may appoint a Construction Health and Safety Officer to assist in the control of health and safety related aspects on the site unless he/she is reasonably satisfied that the construction health and safety officer that he/she intends to appoint has necessary competencies and resources to assist the Principal Contractor

A Construction Manager must in writing appoint Construction Supervisors responsible for construction activities and ensuring Occupational Health and Safety compliance on the construction site.

A Contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the Construction Supervisor contemplated in **paragraph 6** above, and every such employee has, to the extent clearly defined by the Principal Contractor in the letter of appointment, the same duties as the Construction Supervisor: Provided that the designation of any such employee does not relieve the Construction Supervisor of any personal accountability for failing in his or her supervisory duties in terms of this section in the specification..

No Construction Supervisor appointed under paragraph 6 above may supervise any construction work on or in any construction site other than the site in respect of which he/she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed Construction Supervisor may supervise more than one site.

6. REGISTRATION WITH THE WORKMEN'S COMPENSATION OR LICENSED INSURER

The Principal Contractor(s) must ensure that ACSA is provided with a valid letter of good standing, including a registration number with the Compensation for Occupational Injury and Diseases Fund or an alternative scheme approved in writing by the Commissioner to the COID Fund, at least 10 days prior commencement of construction work. It must remain the Principal Contractor's responsibility to furnish ACSA with a valid letter of good standing or keep a copy available for perusal by a Client, Client Representatives or any other person authorised thereto.

7. MANDATARY AGREEMENT

A duly signed mandatary form also referred to as 'OHS Act section 37.2' must be obtained from ACSA Safety Department. It must be signed and returned to ACSA by the Principal Contractor at least 10 days prior to commencement of construction work. The Principal Contractor must ensure that all its contractors have completed a similar document and a proof of such signed documents is submitted to ACSA for reference purposes.

8. ASSIGNED PERSON IN TERMS OF OCCUPATIONAL HEALTH & SAFETY ACT OF 1993 & APPLICABLE REGULATIONS

A written letter of appointment must be forwarded to ACSA duly signed by responsible persons at least 3 days prior commencement of construction work for the following duties: **(Further appointments could become necessary as the project progresses and as per the requirements of OHS Act 85/1993)**

(a) Person assigned duties in terms of the 16.2 appointees of the Act

(b) Construction Manager CR8(1)

(c) Assistant Construction Manager CR8(2) - *where applicable*

(d) Full-time or part-time Construction Safety Officer CR8(5)

(e) Construction Supervisor CR8(7))

(f) Assistant Construction Supervisor CR8(8) - *where applicable*

(g) Risk Assessor CR9(1)

(h) Fall Protection Developer/Planner CR10(1) - *where applicable*

(i) Temporary Works Designer CR11(1) - *where applicable*

(j) Temporary Works Supervisor CR11(2) - *where applicable*

(k) Excavation Supervisor CR13(1)a) - *where applicable*

(l) Demolition Work Supervisor and Controller CR14(1) - *where applicable*

(m) Scaffolding Supervisor CR16(1) - *where applicable*

(n) Scaffolding Team leader CR16(1) - *where applicable*

(o) Scaffolding Inspector CR16(1) - *where applicable*

(p) Scaffolding Erector CR16(1) - *where applicable*

(q) Suspended Platforms Supervisor CR17(1) - *where applicable*

(r) Rope Access Supervisor CR18(1)a) - *where applicable*

(s) Rope Access Fall Protection Plan Developed (R18(2)b) - *where applicable*

(t) Material Hoist Inspector CR19(8)a) - *where applicable*

(u) Bulk Mixing Plant Supervisor CR20(1) - *where applicable*

(v) Explosive Actuated Fastening Devise Operator CR21(2)b) - *where applicable*

(w) Explosive Actuated Fastening Device Controller CR21(2)g(i) - *where applicable*

(x) Construction Vehicles and Mobile Plant Operator CR23(1)d(i) - *where applicable*

(y) Temporary Electrical Installations Controller CR24(c) - *where applicable*

(z) Portable Electrical Equipment Supervisor CR24(d) - *where applicable*

(aa) Fire Equipment Inspector CR29(h) - *where applicable*

(bb) First Aider GSR3(4) -- *where applicable*

(cc) Stacking Supervisor (CR28(a)) (GSR2(a)

(dd) Competent Person in Confined Space Entry GSR5(1) - *where applicable*

(ee) Gas Cutting/Welding Supervisor (GSR9(a) - *where applicable*

(ff) Ladder Supervisor and Inspector (GSR13(a) - *where applicable*

(gg) Lifting Machine Inspector (DMR18(7) - *where applicable*

(hh) Lifting Tackle Inspector (DMR18(10)e) - *where applicable*

(ii) Lifting Machine Supervisor (DMR18(11) - *where applicable*

(jj) Supervisor of Machinery (GMR1) - *where applicable*

(kk) Safety Representatives (OHS Act Sec.17 - *where applicable*

(ll) Hazardous Chemical Substances Controller/Co-ordinator HCSR10 - *where applicable*

(mm) Incident Investigator (GAR9(2)

(nn) Blasting Supervisor (Supervision Of Explosives Workplace ER12) - *where applicable*

9. HEALTH AND SAFETY DOCUMENTATION

The Principal Contractor must provide and demonstrate to ACSA a suitable, sufficiently documented and coherent site specific health and safety plan, based on ACSA's documented health and safety specifications. The health and safety plan must include but not limited to the following during tendering process, before commencement of construction work and during construction:

Principal Contractor's Health & Safety Policy

The Principal Contractor must provide a health & safety policy signed by the Chief Executive Officer (CEO) which outlines Principal Contractor's commitment towards health and safety

Health and Safety Organogram

The Principal Contractor must provide a health & safety organogram which outlines related appointments in terms of the OHS Act and applicable Regulations. Contact numbers should also be provided for easy reference.

10. RISK ASSESSMENT

(Construction Regulation 9)

A Contractor must, before the commencement of any construction work and during such construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site, and must include—

(a) the identification of the risks and hazards to which persons may be exposed to;

(b) an analysis and evaluation of the risks and hazards identified based on a documented method;

(c) a documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;

(d) a monitoring plan; and

(e) a review plan.

A Contractor must ensure that:

(f) as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in the risk assessment

(g) that all employees under his or her control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and or control measures before any work commences, and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site

(h) Principal Contractor must ensure that all Contractors are informed regarding any hazard that is stipulated in the risk assessment before any work commences, and thereafter at the times that may be determined in the risk assessment monitoring and review plan of the relevant site

(i) consult with the health and safety committee or, if no health and safety committee exists, with a representative trade union or representative group of employees, on the monitoring and review of the risk assessments of the relevant site

(j) copies of the risk assessments of the relevant site are available on site for inspection by an inspector, the client, the client's agent, any Principal Contractor, any employee, a representative trade union, a health and safety representative or any member of the health and safety committee

(k) review the relevant risk assessment—

i. where changes are effected to the design and or construction that result in a change to the risk profile; or

ii. when an incident has occurred.

11. FALL PROTECTION PLAN

(Construction Regulation 10)

A Contractor must

(a) designate a competent person to be responsible for the preparation of a fall protection plan;

(b) ensure that the fall protection plan contemplated above is implemented, amended where and when necessary and maintained as required; and

(c) take steps to ensure continued adherence to the fall protection plan.

The Fall Protection Plan must include

(a) a risk assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;

(b) the processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;

(c) a programme for the training of employees working from a fall risk position and the records thereof;

(d) the procedure addressing the inspection, testing and maintenance of all fall protection equipment; and

(e) a rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A Contractor must ensure that:

(a) **The Construction Manager** appointed under **Construction Regulation 8(1)** is in possession of the most recently updated version of the fall protection plan.

(b) all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;

(c) no person is required to work in a fall risk position, unless such work is performed safely as contemplated in above;

(d) fall prevention and fall arrest equipment are

i. approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and

ii. securely attached to a structure or plant, and the structure or plant and the means of attachment thereto are suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who could fall; and

(e) fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

Where roof work is being performed on a construction site, the Contractor must ensure that, in addition to the requirements set out above, it is indicated in the fall protection plan that:

(a) the roof work has been properly planned;

(b) the roof erectors are competent to carry out the work;

(c) no employee is permitted to work on roofs during inclement weather conditions or if any conditions are hazardous to the health and safety of the employee;

(d) all covers to openings and fragile material are of sufficient strength to withstand any imposed loads;

(e) suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or from fragile material is supported; and

(f) suitable and sufficient guard-rails, barriers and toe-boards or other similar means of protection prevent, as far as is reasonably practicable, the fall of any person, material or equipment.

Principal Contractor / Contractor - Competency Assessment

(Construction Regulation 7)

The Principal Contractor must be reasonably satisfied that the sub-contractors he intends to appoint also have the necessary competencies and resources to safely conduct the work they shallbe appointed for. This must be established at tender stage and before appointments are made.

In order to ensure this, the Principal Contractor must demonstrate to the Client that it has a suitable and sufficiently.

12. ADMINISTRATIVE CONTROLS AND THE OCCUPATIONAL HEALTH & SAFETY FILE

(Construction Regulation 7)

The Occupational Health and Safety File

The Principal Contractor shallkeep an Occupational Health and Safety File on site containing the following documents (where applicable) as a minimum:

- Accident/Incident Register. (Annexure 1 of the General Admin Regulations)
- Health and safety Representatives Inspections Register.
- Construction Vehicles & Mobile Plant Inspection.
- Daily Inspection of Vehicles.
- Plant and other Equipment by the Operator/Driver/User.
- Demolition Inspection Register.
- Electrical Installations, Equipment & Appliances. (including Portable Electrical Tools)
- Excavations Inspection.
- Explosive Powered Tool Inspection/Maintenance/Issue/Returns Register. (incl. cartridges & nails)
- Fall Protection Inspection Register.
- First Aid Box Contents.
- Fire Equipment Inspection & Maintenance.
- False work Inspections.
- Hazardous Chemical Substances Record.
- Ladder Inspections.
- Lifting Equipment Register.
- Machinery Safety Inspection Register. (incl. machine guards, lock-outs etc.)
- Scaffolding Inspections.
- Stacking & Storage Inspection.
- Inspection of Structures.
- Inspection of Pressure Equipment.
- Welding Equipment Inspections.

- All other applicable records.
- An equipment inventory register, detailing all major items of equipment such as Construction Vehicles and Mobile Plant etc…

If any work is to be performed on Airside. The contractor must performing such work must provide ACSA with an airside safety plan.

On completion of the project or on completion of the contractors work each contractor must surrender the completed OHS file to the Principal Contractor for consolidation into one "Master File". **A Principal Contractor must** hand over a consolidated health and safety file to ACSA upon completion of the construction work and must, in addition to the documentation referred to in **paragraph 5** of this document include a record of all drawings, designs, materials used and other similar information concerning the completed structure. (These records shallthen be archived by ACSA for future reference purposes).

13. HEALTH AND SAFETY REPRESENTATIVES

The Principal Contractor must ensure that Health and Safety Representative(s) is/are elected and delegated in writing and necessary training has been provided by a competent person where there are more than 20 employees at the workplace. A proof of training certificate must be provided to ACSA.

Health and Safety Representatives must conduct monthly inspections by completing a checklist developed by the Principal Contractor. Safety defects noted must be recorded and reported to the supervisor for remedial action. Health and Safety Representative Inspection findings must be made available to ACSA for reference for audits purposes.

Health and Safety Representatives and their reports must form part of the safety committee which must meet on a monthly bases.

The Principal Contractor must hold health and safety committee meetings on site. Minutes of such meetings and action taken by management must be kept on file and made available to ACSA for reference purposes. Members of the committee must receive proper training and a proof of such training must be made available.

The Committee must consider, at least, the Following Agenda:

- Opening & Welcome
- Present/ Apologies/ Absent
- Minutes of previous Meeting
- Matters Arising from the previous Minutes
- OH&S Reps Reports
- Incident Reports & Investigations
- Incident /Injury Statistics
- Other Matters
- Endorsement of Registers and other statutory documents by a representative of the Principal Contractor
- Close/Next Meeting

The Principal Contractor must ensure that ACSA Safety Department is invited to such meetings. These meetings do not substitute for Principal Contractor's Site meetings.

14. HEALTH & SAFETY TRAINING

Environmental Health and Safety Induction

The Principal Contractor must conduct an induction training session prior commencement of construction work. An attendance register must be kept in the Principal Contractor's health and safety file.

For any construction work to be conducted on the Airside, Airside Induction training (AIT) must be attended by all persons entering who are to enter Airside and a course fee determined by ACSA must be paid by the Principal Contractor. A security permit to access airside must be issued on production of proof of attendance.

Induction Conducted by the Principal Contractor and Competent Person

A manual /copy of such training must be provided to ACSA for reference purposes. As determined by the risk assessment. The Principal Contractor must ensure that all employees under his/her control are trained by a competent person and a proof of such training is kept on file for reference.

Toolbox Talks

The Principal Contractor must ensure that employees attend a formal Toolbox Talk to be held at least once a week. Toolbox Talks must cover a wide variety of topics related to health and safety. An attendance register must be completed by employees who attended such talks. The register must indicate the topic covered presenter, date and signatures of employees attended. Records for Toolbox Talks must be kept in a health and safety file and be made available to ACSA for perusal.

First Aid Training

The Principal Contractor must appoint competent First Aider(s) in writing where more than 10 employees are employed. A letter of appointment must be kept on file for reference made available to ACSA Safety. Duly designated First Aider(s) must have attended training at an accredited institution prior commencement of construction work and a proof of certificate be submitted to ACSA for reference.

The Principal Contractor must ensure that the first aid box(s) is/are controlled by qualified First Aider(s) and kept fully stocked with necessary first aid contents related to the hazards and risks identified. A first aid box(s) must be accessible and location of such box(s) is clearly displayed on site.

15. FIRE PREVENTION AND PROTECTION

The Principal Contractor must ensure that adequate fire equipment is provided in strategic places (that is, where there is a mobile distribution board, flammable liquids, pressure equipment, confined spaces, hot work). The Principal Contractor must ensure that such equipment is inspected by a competent person on a monthly basis and such inspections are recorded on a register. The Principal Contractor must ensure that all fire equipment is serviceable and person(s) have been professionally trained on how to use the equipment. A proof of such training must be provided prior commencement of construction work.

16. EMERGENCY PREPAREDNESS

The Principal Contractor must provide ACSA with an emergency plan and procedure which shallinclude, but not limited to emergencies such as fire, bomb threat, civil unrest, medical treatment, environmental incidents, accidents to employees and other persons other than their employees.

Emergency procedure must be communicated to employees and a proof of such training must be kept on file for reference. A list of emergency contact numbers must be conspicuously displayed on site for ease reference. An evacuation plan must be displayed in strategic places.

In case of medical and/or fire emergency contact ACSA Fire & Rescue Services:

(044) 876 9310

The Principal Contractor must provide ACSA Safety with a full record of any incidents which may occur on site.

17. INCIDENTS/ACCIDENTS REPORTING AND INVESTIGATION

The Principal Contractor must ensure that all incidents/accidents (this includes near miss, first aid cases and section 24 cases) are reported by employees immediately to the Construction Manager for further investigation and remedial action. The Principal Contractor must ensure that all OHS Act section 24 incidents/accidents are reported to the Department of Labour immediately and preliminary investigation is conducted by a competent person within seven days. If construction work shallbe finished within 3 days after occurrence, an investigation must be conducted before such construction work is completed. Proof of such investigation must be submitted to ACSA immediately or within 24 hours after investigation.

18. PERSONAL PROTECTIVE CLOTHING/EQUIPMENT

The Principal Contractor must ensure that personal protective equipment or clothing needs analysis is conducted and incorporated into the risk assessment. Records must be provided by the Principal Contractor prior to the commencement of construction work. The Principal Contractor must ensure that SABS approved personal protective equipment or clothing is provided to personnel. The Principal Contractor must ensure that no personnel are allowed to work on site without necessary personal protective equipment or clothing. The Principal Contractor must ensure that PPE or Clothing is kept in good working order and clearly stipulate procedures to be followed when PPE or Clothing is lost or stolen, worn or damaged. ACSA shallremove any person from the construction site who is working without necessary personal protective equipment and/or clothing. Worn or tattered personal protective clothing shallnot be permitted on airport premises.

19. FALL PROTECTION (WORKING IN ELEVATED POSITIONS)

(Construction Regulation 10)

A pre-emptive Risk Assessment shallbe required for any work to be carried out above two metres from the ground or any floor level and shallbe classified as "Work in Elevated Positions".

As far as is practicable, any person working in an elevated position shallwork from a platform, ladder or other device that is at least as safe as if he/she is working at ground level and whilst working in this position be wearing and using a full body harness that shallbe worn to prevent the person falling from the platform, ladder or other device utilised.

This safety harness shallbe, as far as is possible, secured to a point away from the edge over which the person might fall and the double lanyard must be of such a length that the person shallnot be able to move over the edge.

In addition any platform, slab, deck or surface forming an edge over which a person may fall must be fitted with guard rails at two different heights as prescribed in SABS 085' Code of Practice for the Design, Erection, Use and Inspection of Access Scaffolding

Workers working in elevated positions must be trained to do this safely and without risk. Proof of training must be maintained on the contractors site safety file. Medical certificates of fitness for all employees working in elevated positions must be available on site. This must be issued by an Occupational Health Practitioner.

Where work on roofs are carried out, the Risk Assessment must take into account the possibility of persons falling through fragile material, skylights, soffits and openings in the roof, steel support work trusses and purlins so designed as to support the roof structure.

The Risk Assessments shall place specific emphasis on the placing and handling of roofing materials such as Inverted Box Rib Sheeting (IBR sheeting) or similar materials, (including contingency safety measures), which when exposed to windy conditions represents a serious safety hazard.

20. RISK ASSESSMENT FOR CONSTRUCTION WORK

(Construction Regulation 9)

Every Contractor performing Construction work shall, before the commencement of any construction work and during such work, have a Risk Assessment performed by a competent person, appointed in writing, and the Risk Assessment shall form part of the OH&S Plan.

Each activity must define individual tasks associated with that identified activity. These and all associated hazards must be identified and listed in the risk assessment. This ensures that critical tasks and associated hazards are not missed.

The Risk Assessment must include:

- The identification of the risks and hazards to which persons may be exposed to
- The analysis and evaluation of the risks and hazards identified
- A documented plan and applicable safe work procedures (SWP) to mitigate, reduce or control the risks and hazards that have been identified
- A monitoring plan and
- A review plan

A Contractor must ensure that:

- As far as is reasonably practicable ergonomic related hazards are analysed, evaluated and addressed.
- All employees under his/her control are informed, instructed and trained by a competent person regarding any hazards.
- A Principal Contractor must ensure all Contractors are informed regarding any hazard as stipulated in the risk assessment before any work commences.
- Consult with health and safety committee on monitoring and review risk assessment on site.
- Ensure a copy of risk assessments is available for inspection.
- Review relevant risk assessments where changes are affected to the design or construction that result in a change to the risk profile or when an incident occurred.

N.B. A risk assessment shallbe performed for all unplanned work and submitted to ACSA for approval prior to work commencing.

21. STRUCTURES

(Construction Regulation 11)

The Contractor shallensure that in terms of Construction Regulation 11 the following is adhered to:

- That the structure on/in which works are to be performed has been inspected by a certified structural engineer declaring the structure to be safe for construction/demolition/renovations work processes.
- Steps are taken to ensure that no structure becomes unstable or poses a threat of collapse due to demolition and construction work being performed on it, or in the vicinity of it.
- No structure is overloaded to the extent where it becomes unsafe; if uncertainty arises then the structural engineer is to be consulted.
- He/she has received from the designer the following information:
- Information on known or anticipated hazards relating to the construction/demolition work and the relevant information required for the safe execution of the construction/demolition work.
- A geo-scientific report (where applicable).
- The loading the structure is designed to bear.
- The methods and sequence of the construction/demolition process.
- All drawings pertaining to the design are on site and available for inspection.

The structural engineer shall carry out inspections at appropriate and sufficient intervals of the construction work involving the design of the relevant structure to ensure compliance with the design and record the results of these inspections in writing.

22. TEMPORARY WORK

(Construction Regulation 12)

Temporary work must be carried out under the supervision of a competent person designated in writing.

Temporary works structures must be so designed, erected, supported, braced and maintained such that it shallbe able to support any vertical or lateral loads that may be applied.

No load is to be imposed onto the structure that the structure is not designed to carry.

Temporary works must be erected in accordance with the structural design drawings for that temporary works and, if there is any uncertainty, the designer must be consulted before proceeding with the erection/use of the temporary works.

All design drawings pertaining to the temporary works must be kept available on site.

All equipment used in the erection of temporary works must be checked by a competent person before use.

The foundation or base upon which temporary works is erected must be able to bear the weight and keep the structure stable.

Employees erecting temporary works must be trained in the safe work procedures for the erection, moving and dismantling of temporary works.

Safe access/egress (and emergency escape) must be provided for workers.

A competent person must inspect temporary works structures that have been erected before, during and after pouring of concrete or the placing of any other load and thereafter daily until the temporary works is stripped.

The results of all inspections must be recorded in a register kept on site.

The temporary works must be left in place until the concrete has reached sufficient strength to bear its own weight plus any additional weight that may be imposed upon it and not until the designated competent person has authorised its stripping in writing.

Any damaged temporary works must be repaired/rectified immediately Deck panels must be secured against displacement.

The contractor must ensure that no employee is exposed, or required to work on slippery and dangerous surfaces.

Person's health must be protected when use is made of solvents, oils or other similar substances.

Ensuring that the OEL (Occupational Exposure Limit) for any substances that they may be exposed to does not exceed the legal limits and that the necessary PPE is used.

23. EXCAVATIONS

(Construction Regulation 13)

The Principal Contractor must ensure excavation work is conducted under supervision of a competent person who has been appointed in writing. A letter of appointment must be provided to ACSA Safety prior commencement of work. A risk assessment outlining safe work procedures to be adhered to if excavation is more than 1.0m deep must be provided to ACSA prior commencement of work. The Principal Contractor must ensure that no person works in an excavation which is not adequately braced or shored.

The Principal Contractor must ensure that every excavation including bracing and shoring are inspected daily prior each shift starts and such records are kept on site for reference.

The Principal Contractor must ensure that all precautionary measure as stipulated for confined spaces as stated in the General Safety Regulation of OHS Act 85/1993 are complied with when entering any excavation. The Principal Contractor must ensure that warning signs are conspicuously displayed where excavation work involves the use of explosives and a method statement developed by a competent person is provided to ACSA prior commencement.

The Principal Contractor must ensure that safe and convenient means of access is provided to every excavation when required. Such access must not be further than 6m from the point where any worker within the excavation is working.

The Principal Contractor must communicate, train and enforce safe work procedures pertaining to excavation work to his/her employees.

24. DEMOLITION WORK

(Construction Regulation 13)

The Principal Contractor must ensure that a detailed structural engineering survey is conducted by a competent person and a method statement on the procedure to be followed is provided to ACSA Safety. The Principal Contractor must ensure that demolition work is conducted under the supervision of a competent person appointed in writing.

The Principal Contractor must ensure that safety precautionary measures stipulated in Asbestos Regulations is adhered to if demolition work involves asbestos material and that asbestos work is conducted under the supervision of a registered Asbestos Principal Contractor.

25. SCAFFOLDING

(Construction Regulation 16)

Access Scaffolding must be erected, used, and maintained safely in accordance with Construction Regulation 16 and SA Bureau of Standards Code of Practice, SANS 10085/1 entitled, "The Design, Erection, and Use & Inspection of Access Scaffolding.

Detailed consideration must be given to all scaffolding to ensure that it is properly planned to meet the working requirements, designed to carry the necessary loadings and maintained in a sound condition. It must also be ensured that there is sufficient material available to erect the scaffolding properly.

Scaffolding may only be erected, altered or dismantled by a person who has the appropriate training and experience in this type of work or under the supervision of such a person

Specific attention must be given to the appointment of Scaffolding Inspectors and Scaffolding Erectors who shall not be the same person. The continuous inspection of scaffolding structures must be recorded on the applicable Scaffold register.

Tagging/Signs reflecting the status of the scaffold must be always used and fixed to the structure. (Safe to use / Scaffold not Safe)

On completion of the erection, the Supplier shallinspect the structure and shallensure it is in sound working order and complies with all statutory regulations. The Supplier shallthen issue a Handover Certificate, Drawings, design, and specifications shall be signed by a registered professional engineer.

An inspection of the completed scaffold shall also be inspected by the registered professional engineer for approval prior to use. Should any additional load i.e., a hoist or advertising banners be added to the scaffold at a later stage, the professional engineer must approve the modification.

26. SUSPENDED PLATFORMS

(Construction Regulation 17)

The Contractor to design, erect, use and maintain suspended platforms in accordance with the requirements of Construction Regulation 17.

27. EXPLOSIVE ACTUATED FASTENING DEVICES

(Construction Regulation 21)

Every Explosive Powered Tools (EPT) must be:

- Provided with a guard around the muzzle to confine flying fragments or particles
- A firing mechanism that shallprevent the EPT from firing unless it is pushed against the surface and at a right angle (where the EPT is fitted with an intermediate piston between the charge and the nail this requirement is waived)
    - The Contractor or user must ensure that:
    - Only the correct type of cartridge is used (product specific)
    - The EPT is cleaned and inspected daily before use by an appointed competent person who maintains a register with the findings of his inspection and the details of cleaning, service and repairs
    - The safety devices are in good working order before the EPT is used

- When the EPT is not being used it is stored in an unloaded condition together with the cartridges in a safe/secure place inaccessible to unauthorised persons
- A warning notice is displayed at the point where the EPT is in use
- The issue and return of cartridges must be controlled by maintaining the issue/returns register signed by both issuer and user and empty cartridge cases must be returned with unspent cartridges.
- Users/operators of the EPT have received the necessary training and have been authorised as being competent to use/operate the EPT
- Users/operators must wear the prescribed PPE whilst using/operating the tool.

28. CRANES

(Construction Regulation 22)

A Crane permit must be obtained from ACSA and submitted before erection of crane.

A contractor must, in addition to compliance with the Driven Machinery Regulations, 1988 ensure that where tower cranes are used—

(a) they are designed and erected under the supervision of a competent person;

(b) a relevant risk assessment and method statement are developed and applied;

(c) the effects of wind forces on the crane are taken into consideration and that a wind speed device is fitted that provides the operator with an audible warning when the wind speed exceeds the design engineer's specification;

(d) the bases for the tower cranes and tracks for rail-mounted tower cranes are firm, level and secured;

(e) the tower crane operators are competent to carry out the work safely; and

(f) the tower crane operators have a medical certificate of fitness to work in such an environment, issued by an occupational health practitioner in the form of Annexure 3.

29. LIFTING EQUIPMENT, TACKLE, MATERIAL HOIST AND CRANES

The Principal Contractor must ensure that all lifting equipment and tackle are inspected before use and a monthly register is completed by a competent person. Proof of such inspections must be recorded and kept on file for reference. The Principal Contractor must ensure that a safe working load is conspicuously displayed on lifting equipment and tackle and service certificate is provided prior commencement of work. The Principal Contractor must ensure operators are properly trained on how to operate the above-mentioned equipment and a proof of competency is provided prior commencement of work.

The Principal Contractor must provide information on procedures to be followed in the case of:

(a) Malfunctioning of equipment; and

(b) Discovery of a suspected defect in the equipment

The Principal Contractor must ensure that safety measures stipulated in Driven Machinery Regulation and Construction Regulation with regard to above equipment are adhered to at all times.

30. CONSTRUCTION VEHICLES & MOBILE PLANT

(Construction Regulation 13)

Construction Vehicles and Mobile Plant may be inspected by ACSA prior to being allowed on a project site and suppliers of hired vehicles, plant and equipment shallbe required to comply with this specification as well as the OHS Act and Regulations.

Construction Vehicles and Mobile Plant (CV & MP) to be:

- of acceptable design and construction
- maintained in good working order
- used in accordance with their design and intention for which they were designed
- Operated/driven by trained, licensed competent and authorised operators/drivers. No unauthorised persons to be allowed to drive or operate CV & MP
- Operators and drivers of CV & MP must be in possession of a valid medical certificate declaring the operator/driver physically and psychologically fit to operate or drive CV & MP.
- fitted with adequate signalling devices to make movement safe including reversing
- excavations and other openings must be provided with sufficient barriers to prevent CV & MP from falling into same
- Provided with roll-over protection, appropriate seat fitted which shall be used during CV & MP operations.
- inspected daily before start-up by the driver/operator/user and the findings recorded in a register/log book
- CV & MP to be fitted with two head and two taillights whilst operating under poor visibility conditions, in addition they shall be equipped with ‘hazard warning’ lights, which must be used whenever the CV & MP is on site.
- No loose tools, material etc. is allowed in the driver/operators compartment/cabin nor in the compartment in which any other persons are transported
- CV & MP used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported
- Operators to be issued with Personal Protective Equipment as required and identified by the Risk Assessments
- Only licensed and road worthy vehicles shallbe allowed on the public roads

No person may ride on a CV & MP except in a safe place provided by the manufacturer for this purpose

The construction site must be organized to facilitate the movement of CV & MP so that pedestrians and other vehicles are not endangered. Traffic routes are to be suitable, sufficient in number and adequately demarcated.

CV & MP left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights reflectors or barricades to prevent moving traffic coming into contact with the parked CV & MP.

In addition CV & MP left unattended after hours must be parked with all buckets, booms etc. fully lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely

Workers employed adjacent to, or on public roads must wear reflective safety vests

All CV & MP inspection records must be kept in the OH&S File.

31. ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITES

(Construction Regulation 24)

The Principal Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that—

(a) before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;

(b) all parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

(c) the control of all temporary electrical installations on the construction site is designated to a competent person who has been appointed in writing for that purpose;

(d) all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and

(e) all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

The Principal Contractor must ensure that prior notice is given to ACSA Electrical Department of any work involving electrical installation. A lock-out certificate must be issued to the relevant Principal Contractor. The Principal Contractor must ensure that a lock-out procedure is adhered to by his/her employees whenever required. The Principal Contractor must ensure that safety measures stipulated in the Electrical Installation Regulations, Machinery Regulations, General Machinery Regulations and Construction Regulations are adhered to at all times.

32. USE AND TEMPORARY STORAGE OF FLAMMABLE LIQUIDS ON CONSTRUCTION SITES

(Construction Regulation 25)

The Principal Contractor to ensure that:

- No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapours being present.
- No flammable substance is used or applied e.g. in spray painting, unless in a room or cabinet or other enclosure specially designed and constructed for that purpose, unless due to imposed controls that the ventilation provided is sufficient to ensure that the Lower Explosive Limit and Lower Fire Limit are not exceeded. Furthermore that the risk assessments are reviewed to ensure that all the related hazards have been addressed and that adequate P.P.E. is provided.
- The workplace is effectively ventilated. Where this cannot be achieved:

- Employees must wear suitable respiratory equipment
- No smoking or other sources of ignition is allowed into the area
- The area is conspicuously demarcated as "flammable materials”
- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container approved by the local Fire Department, cage or room that is kept locked with access control measures in place and sufficient firefighting equipment installed and fire prevention methods practised e.g. proper housekeeping
- Flammables stored in a permanent flammables store are stored so that no fire or explosion is caused i.e.: stored in a locked well-ventilated reasonably fire resistant container, cage or room conspicuously demarcated as "Flammable Store -No Smoking or Naked Lights"
- Adequate and suitable firefighting equipment installed around the flammables store and marked with the prescribed signs
- All electrical switches and fittings to be of a flameproof design, or where necessary, intrinsically safe.
- Any work done with tools in a flammables store or work areas to be of a non-sparking nature
- No Class A combustibles such as paper, cardboard, wood, plastic, straw etc. to be stored together with Flammables
- The flammable store to be designed and constructed so that in the event of spillage of liquids in the store, it shallcontain the full quantity + 10% of the amount liquid stored.
- Where the use of Bulk Storage facilities is contemplated, the contractor must ensure compliance to the local Authority bylaws.
- A sign indicating the capacity of the store to be displayed on the door
- Containers (including empty containers) to be kept closed to prevent fumes/vapours from escaping and accumulating in low lying areas
- Metal containers to be bonded to earth whilst decanting to prevent build-up of static electricity
- Welding and other flammable gases to be stored and segregated as to type of gas and empty and full cylinders
- All permanently installed storage facilities to comply with SANS 10089.

33. HOUSEKEEPING AND GENERAL SAFEGUARDING ON CONSTRUCTION SITES

(Construction Regulation 27)

The Principal Contractor must ensure that suitable housekeeping is continuously implemented on each construction site, including—

(a) the proper storage of materials and equipment;

(b) the removal of scrap, waste and debris at appropriate intervals;

(c) ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;

(d) ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;

(e) ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons; and

(f) ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

The Principal Contractor must ensure that safety precautionary measures stipulated in Environmental Regulations for Workplaces and Construction Regulations and Construction Environmental Specification are adhered to at all times.

34. STACKING AND STORAGE ON CONSTRUCTION SITES

(Construction Regulation 28)

The Principal Contractor must ensure contractor must ensure that:

(a) a competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;

(b) adequate storage areas are provided;

(c) there are demarcated storage areas; and

(d) storage areas are kept neat and under control a competent person is appointed in writing with a duty of supervising all stacking and storage on a construction work or site. A proof of such appointment must be provided prior commencement of construction work. The Principal Contractor must ensure that stacking is conducted under supervision and good housekeeping is maintained at all times.

35. FIRE PRECAUTIONS ON CONSTRUCTION SITES

(Construction Regulation 29)

The Principal Contractor must ensure that:

(a) all appropriate measures are taken to avoid the risk of fire;

(b) sufficient and suitable storage is provided for flammable liquids, solids and gases;

(c) smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;

(d) in confined spaces and other places in which flammable gases, vapours or dust can cause danger—

(i) only suitably protected electrical installations and equipment, including portable lights, are used;

(ii) there are no flames or similar means of ignition;

(iii) there are conspicuous notices prohibiting smoking;

(iv) oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and

(v) adequate ventilation is provided;

(e) combustible materials do not accumulate on the construction site;

(f) welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

(g) suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;

(h) the fire equipment contemplated in paragraph (g) is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;

(i) a sufficient number of workers are trained in the use of fire- extinguishing equipment;

(j) where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire;

(k) the means of escape is kept clear at all times;

(l) there is an effective evacuation plan providing for all—

(i) persons to be evacuated speedily without panic;

(ii) persons to be accounted for; and

(iii) plant and processes to be shut down; and

(m) a siren is installed and sounded in the event of a fire.

36. CONSTRUCTION EMPLOYEES' FACILITIES

(Construction Regulation 30)

A Contractor must provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities:

(a) Shower facilities after consultation with the employees or employees' representatives, or at least one shower facility for every 15 persons;

(b) at least one sanitary facility for each sex and for every 30 workers;

(c) changing facilities for each sex; and

(d) sheltered eating areas.

A Contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

37. LADDERS

The Principal Contractor must ensure that all ladders are numbered, inspected before use and monthly inspections are recorded in a register. The Principal Contractor must ensure that a competent person who carries the above inspections is appointed in writing.

38. PRESSURE EQUIPMENT

The Principal Contractor must ensure that pressure equipment is identified, numbered and entered in a register. Furthermore he/she must ensure that inspections are carried out and certificates of testing are available and kept on file as per the Regulations.

39. EMPLOYEES EXPOSED TO EXCESSIVE NOISE

The Principal Contractor must ensure that all employees exposed to excessive noise, equal or above 85 dB(A), have undergone a baseline audiometric test prior commencement of construction work and SABS approved ear protection is provided and worn at all times.

40. PUBLIC SAFETY AND SECURITY

The Principal Contractor must ensure that notices and signs are conspicuously displayed at the entrance and along the perimeter fence indicating “No Unauthorized Entry”, “Visitors to report to office”, “helmet and safety shoes” etc.

Health and safety signage must be well maintained throughout the project. This must entail cleaning, inspection and replacement of missing or damaged signage.

Furthermore the Principal Contractor must ensure that:

a) Nets, canopies, fans etc. are provided to protect the public passing or entering the site

b) A security guard is provided where necessary and provided with a way of communication and an access control measures or register is in place

c) All visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site.

41. NIGHT WORK

The Principal Contractor must ensure that necessary arrangements have been made with ACSA before conducting any night work and that there is adequate lighting for any work to be conducted and failure to do so shallresult in work being stopped.

42. HOT WORK

The Principal Contractor must ensure that ACSA Fire & Rescue Department is notified of any hot work to be conducted during construction work. A hot work permit accompanied with a gas free certificate must be issued to the relevant Principal Contractor by ACSA Fire & Rescue Department when satisfied that the area is safe and that the Principal Contractor understands the procedure. The Principal Contractor must ensure that a hot work procedure is adhered to at all time by his/her employees.

43. HIRED PLANT AND MACHINERY

The Principal Contractor must ensure that any hired plant and/or machinery brought to site is inspected by a competent person before use and records confirming that it is safe for use are provided prior usage of such equipment. Such plant or machinery complies at all times with the requirements of the Occupational Health & Safety Act.

The Principal Contractor must ensure that hired operators receive induction prior commencement of work and that said hired operators have proof of competency.

The Principal Contractor must provide information on procedures to be followed in the case of:

(a) Malfunctioning of equipment; and

(b) Discovery of a suspected defect in the equipment

44. ROAD CONSTRUCTION WORK

The Principal Contractor must ensure that construction work conducted on the public road all necessary caution signage, cones, flag man etc. are provided as stipulated in the Road Traffic Ordinance is adhered to. The caution signage to be conspicuously displayed to warn the drivers of any construction work ahead must be provided at least at 75 m away from the cones; flag man; actual construction work etc.

45. EDGE PROTECTION AND PENETRATION

The Principal Contractor must ensure that all exposed edges and floor openings are guarded and demarcated at all times until permanent protection has been erected. Guardrails used for edge protection must be 500mm and 900mm apart (double railing) above the platform/ floor surface.

The Principal Contractors fall protection plan must include the procedure to be followed regarding the management of edge protection and penetration.

46. BATCH PLANTS

Should a batch plant be used, it must conform to the requirements as set out on Construction Regulation (February 2014) of OHS Act 85/93. These must include but not limited to appointment of a competent person to operate and supervise batch plant operations.

47. CONFINED SPACE ENTRY

The Principal Contractor must ensure that all necessary health and safety provisions prescribed in the General Safety Regulations are complied with when entering confined spaces.

48. LIQUOR, DRUGS, DANGEROUS WEAPONS, FIREARMS

The Principal Contractor must ensure that no person is allowed on site that appears to be under the influence of intoxicating liquor or drugs.

The Principal Contractor must encourage his/her workforce to disclose the medication that poses a health and safety threat towards his/her fellow employees. No person must be allowed to enter the site and work if the side effects of such medication do constitute a threat to the health or safety of the person concerned or others at such workplace.

No dangerous weapons or firearms allowed on the construction site.

49. INTERNAL/EXTERNAL AUDITS

The Principal Contractor must conduct monthly safety, health and environment audits and such records must be kept on site. The Principal Contractor must ensure that corrective measures are taken to ensure compliance.

ACSA must conduct monthly audits and defects noted must be reported to the relevant Principal Contractor for remedial action. Inspections must be conducted by ACSA and non-conformances noted must be recorded and provided to the relevant Principal Contractor for remedial action. ACSA must stop any Principal Contractor from executing any construction work which is not in accordance with the health and safety plan.

The Principal Contractor must ensure that all necessary documents stipulated in this document are kept on the health and safety file and made available when requested.

50. PENALTIES

Penalties shallbe imposed by ACSA on Principal Contractors who are found to be infringing these specifications, legislation and safety plans.

The Principal Contractor shallbe advised in writing of the nature of the infringement and the amount therefor. The Principal Contractor must determine how to recover the fine from the relevant employee and/or sub-contractor. The Principal Contractor must also take the necessary steps (e.g. training) to prevent a recurrence of the infringement and must advise ACSA accordingly. The Principal Contractor is also advised that the imposition of penalties does not replace any legal proceedings.

Penalties shallbe between R200 and R20 000, depending upon the severity of the infringement. The decision on how much to impose shallbe made by the ACSA SHE Representative, and shallbe final. In addition to the penalties, the Principal Contractor must be required to make good any damage caused as a result of the infringement at his/her own expense.

The preliminary list below outlines typical infringements against which ACSA may raise penalties; however, this list must not be construed as final:

- Failure to keep a copy of OHSACT on site.
- Failure to maintain an up-to-date letter of good standing with the Compensation Commissioner / FEM.
- Working on site without attending Safety Induction Training.
- Failure to conduct Safety Induction for personnel and visitors on site.
- Failure to issue and wear Personal Protective Clothing and Equipment.
- Failure to fully stock first aid box in accordance to the risks identified.
- Failure to disclose or report first aid cases and /or minor/major/fatalities as prescribed by the OHSACT.
- Failure to adhere to written safe work procedure as stipulated in the Hazard Identification and Risk Assessment and safety plan.
- Failure to maintain records and registers as per the OHS Act of 1993 and its regulations.
- Failure to conduct audits and inspections as required by legislation.
- Keeping un-serviced fire equipment on site.
- Failure to make use of ablution facilities.
- Failure to remove personnel on site who appears to be under the influence of intoxicating liquor or drugs.
- Failure to close out previously raised non-conformances.
- Failure to make and update legislative appointments.
- Failure to adhere to the OHS Act of 1993 and its regulations.

I, _____ (name & surname) of

_____(company) Upon receipt of this specification, agree and acknowledge ACSA's right to impose penalties should I or any of my employees or contractors fail to comply with these conditions.

Signed: _____

On this date: _____ (dd/mm/yyyy)

At: _____ (Airport Name)

ANNEXURE C5.2 – ACSA BASELINE HAZARD IDENTIFICATION RISK ASSESSMENT (HIRA)

Baseline Risk Assessment	
Project Name	A3 &A4 Passenger Loading Bridge Replacement at Cape Town International Airport
Document Number: HIRA 1	Revision Number: 001

1. Risk assessment of the Project

Risk Severity Definition	**Description: Consequences (can lead to)…**	**Examples of what to look out for…**
Category A Catastrophic	**One or more multiple deaths and complete loss or destruction of equipment**	**A major accident**
Category B Hazardous	**Serious injuries or minor equipment damage**	**Large reduction in safety margins, a reduction in the ability of the operators cannot be relied upon to perform their tasks accurately or completely**
Category C Major	**Minor injuries or minor equipment damage**	**A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of conditions impairing their efficiency.**
Category D Minor	**Incidents**	**Operating limitations are breached. Procedures are not used correctly.**
Category E Negligible	**Negligible or inconvenience**	**Few consequences, No safety consequences. Nuisance**

2. Generic Hazard Assessment of the Project

Likelihood Probability	Description	Examples of what to look out for…
Category 1	Extremely Improbable (Rare)	Almost inconceivable that the event shall occur
Category 2	Improbable (Seldom)	Very unlikely that the event shall occur. It is not known that it has ever occurred before
Category 3	Remote (Unlikely)	Unlikely but could possibly occur. Has occurred rarely.
Category 4	Occasional	Likely to occur sometimes. Has occurred infrequently.
Category 5	Frequent	Likely to occur many times or regularly. Has occurred frequently or regularly

		Catas-trophic	Hazardous	Major	Minor	Negligible
		A	B	C	D	E
Frequent	5	5A	5B	5C	5D	5E
Occasional	4	4A	4B	4C	4D	4E
Remote	3	3A	3B	3C	3D	3E
Improbable	2	2A	2B	2C	2D	2E
Extremely Improbable	1	1A	1B	1C	1D	1E

Required to Complete a Generic Hazard Assessment of the Project

Generic Hazard	Specific component of Hazard	Hazard related consequence	Existing defences to control risk	Safety Risk Index
Site establishment	Delivering of containers and materials; increased vehicle movements and location of services	Operational disruptions, incidents and service disruptions	Site plan location requires prior approval, services to be identified by ACSA representatives and drivers to be competent and vigilant of other road users. Vehicle inspections are to be conducted daily	2D
Site Access	Access is to be controlled and movement of vehicles and staff are to be monitored to reduce impact on operations	Injuries to Airport users, traffic build up, operational delays, vehicle incidents	Site is to be access controlled. All visitors to site are to report to the site office. Entrance to site camp is to be kept clean, swept after truck deliveries to minimize impact to operations.	2D
Persons on airside	Accidents and injuries	Injury to persons/Fatality	All staff wishing to work on the Airside are to go for Airside induction training. These staff members are to have valid Permits with them at all times. Personal protective equipment required for Airside includes but is not limited to high visibility jackets (as per the procedure, hearing protection, safety shoes & hard hats (if required). An airside safety plan must be submitted before commencement of work.	3A

Vehicles on airside	Accidents and injuries	Damage to aircraft/vehicles/ property/person s	All vehicles operating on the Airside are to be fitted with a strobe light, appropriate signage in the form of a prefix, have the necessary vehicle permit in place, to be fitted with a fire extinguisher and is to be serviceable. Vehicles are to be checked by Airside Safety prior to be granted Airside access	4A
Driving on airside	Incidents	Damage to aircraft/ vehicles/propert y/ persons	Airside induction is required for all persons entering the Airside. For persons wishing to drive on the Airside Service Road an AVOP 2 permit is required. Where work is to be conducted on the Airfield, then contractors are required to be under escorts or have undergone Radio Licence training and be in the possession of an AVOP 3 permit The speed limit on the Apron Service Roads is 30km/h, 15km/h at the back of stand and 60km/h on the Perimeter Road. During period of Low Visibility (LVP) shallbe effected and no vehicular movements are allowed on the Airfield. Low visibility procedures shallbe in place	4A

Driving on runways and taxiways without permission	Incursion (include definition)	Collision with aircraft/property damage or fatality/ies	Runway and taxiway markings are indicated as per ICAO Annex 14. Perrmission is required from Air Traffic Control when crossing runways and taxiways. Signage indicating movement areas are painted on the ground or by means of illuminated signage boxes. Only persons in possession of a valid Airside Vehicle Operators Permit with the necessary radio licence (Partac training) shallbe permitted to drive in restricted areas. Vehicles under escort must follow at reasonable distance.	3A
Noise	Health Risks	Noise induced hearing loss	Baseline and annual audiograms are to be conducted. Contractors are to implement a hearing conservation programme and issue staff with hearing protection and provide the necessary training in this regard. Contractors to identify noisy operations in passenger areas and are to conduct noise generating operations at off peak times were possible or if unavoidable with ACSA's Project Leaders written permission.	3B
Jet blast	Potential injuries and property	Damage to vehicles/property/persons	Signage warning against jetblast is installed at high-risk areas. Risks associated with jetblast are covered during Airside Induction Training. Caution to be taken around aircraft when the anti-collision lights are activated in the Apron bays. 75 meter clearance behind aircraft to be observed to prevent jetblast. Contractors to be aware of aircraft movements	4C

Perimeter fence breach	Security risk	National Key Point Violation	Access and egress points are strictly enforced. Contractors are only to use the entry points as provided by the ACSA Project Leader. No materials are to be stored within 3meter of the perimeter fence.	3B
Crane operations	Height of crane	Flight path obstruction/collision with aircraft	30 meter height restriction procedure – refer to Airfield Operation Department for further information	2A
Weather	Adverse weather conditions	Damage to aircraft/vehicles/ equipment	Weather warnings are issued by the Airside Safety Department as and when required. All equipment on the Airside is to be secured	4A
Construction works	Foreign Object Debris (FOD)	Ingestion into aircraft engine	Airside induction is required for all staff working on the Airside, FOD bins are to be used for any FOD found lying on the ground. All waste to be secured to prevent it from becoming airborne (refer to Environmental Terms and Conditions)	4B
Construction works	Working at Height	Injury /fatality	Fall protection plan to be devised by the contractors in line with the Construction Regulations 2014. Rescue plans are to be included	3A
Construction works	Storage of hazardous chemicals substances	Contamination/fire/ injury to persons/ environmental impact	ACSA's Environmental terms and conditions are to be adhered to. All relevant legislation and bylaws are to be adhered to. All necessary permits are to be applied for by the contractor such as transport permits, possession permits and flammable certificates. ACSA Environment and Fire and Rescue to be notified where a spill occurs.	4B

Construction works	Waste	Attracts rodents and birds which leads to bird strikes and adds to FOD	Waste management to be implemented in line with ACSA's Environmental Terms and Conditions	4B
Construction works	Spillages (fuels/oils/hydraulics/chemicals/human waste)	Contamination/Pollution/injury to persons/adverse health effects	ACSA's Environmental terms and conditions and applicable legislative controls are to be adhered to. ACSA Environment and Fire and Rescue to be notified where a spill occurs	4B
Construction works	Dust	Damage to aircraft//injury to persons/adverse health effects/	Dust suppression measures are to be implemented and PPE used where required	4A
Construction works/ Trenching	Damage to underground services. Interruption of critical services	Electrocution, loss of critical services, damage to property, major injuries, aircraft diversions	Consult as-built plans. Scan area before trenching. Trenching to be done under competant supervision.	4A
Delivery of materials	Falling materials or stones or sand	Vehicle/pedestrian accidents	Materials are to be delivered within specified time frames, flagman to be utilised during deliveries, load limitations to be observed, netting is to be used, contractors to clean road after deliveries	4E
Lack of signage – warning signs	Injuries and accidents	Injuries and accidents	Contractors to install sufficient demarcations around construction sites along with the necessary warning signs and beacon lights (refer to Construction Regulations and Traffic Act) No signs are to be removed without prior permission and notification. Temporary way finding signage is required if signage has been disturbed	2D

Waste management	Environmental impact	Illegal dumping	Temporary laydown areas to be identified and no illegal dumping is permitted.	3C
Trolleys	Damaging trolleys through misuse	Injuries and property damage	Contractors to provide their own trolleys. ACSA's trolleys are for passenger use only	5D
Golf carts	Misuse of golf carts	Injuries and property damage	Contractor staff to be aware of golf cart movements on the Landside. Golf cart use for airport users only and not for contractor use for transporting materials. Golf cart operate in predetermined routes – contractors to be aware thereof	3D
Fire equipment	Use and abuse of fire equipment	Injuries and property damage	Fire equipment is only to be used during emergencies. Contractors to provide their own fire equipment. No materials to be stored in ACSA fire cabinets. Emergency exits are to be kept clear at all times.	2B
Unattended bags	Security risk	injuries/fatality to Airport users/stakeholders/ACSA employees. Bomb threat-damage to property, vehicle. Operational disruptions	Contractors are not permitted to leave bags unattended as they shallbe removed and shallbe handed to SAPS	5C
Speed limits	Car accidents	Injuries and vehicle damage	Speed limits on the Central Boulevard and Elevated Road are 40km/h, exiting the road networks is 50km/h, Tower Road is 50km/h and Freight Road is 50km/h. Speed humps are installed along Tower Road and Freight Road to reduce speeding	3C
Overhead works	Falling items	Injuries, vehicles, property damage	Fall protection plan required as per the Construction Regulations 2014.	5C

General housekeeping	Damage to escalators	Injuries, property damages	Escalators are not be used to transport heavy items in the Parkade	4C

ANNEXURE C5.3 – OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH & SAFETY ACT (ACT 85 OF 1993), AS AMENDED & 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), as amended and its regulations and The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993) also known as the (COID Act).
2. Construction Regulations 2014

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

The parties to this Agreement are:

Name of Organisation: **AIRPORTS COMPANY SOUTH AFRICA "ACSA"**
Physical Address: **Airport Company South Africa** **Western Precinct, Aviation Park,** **O.R. Tambo International Airport** **1 Jones Road** **Kempton Park** **Johannesburg, 1632** **P O Box 75480, Gardenview, Gauteng, South Africa, 2047**

Hereinafter referred to as "Client"

Name of organisation:
Physical Address

Hereinafter referred to as "the Mandatary/ Principal Contractor"

MANDATARY'S MAIN SCOPE OF WORK

Replacement project for replacement of A3 and A4 passenger loading bridges for a Period of 3 years.

1. Definitions

1.1 "Mandatary" is defined as an agent, a principal contractor or a contractor for work, or service provider appointed by the Client to execute a scope of work on its behalf, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant.

1.2 "Client" refers to ACSA;

1.3 "Parties" means ACSA and the Contractor, and "Party" shall mean either one of them, as the context indicates;

1.4 "Services" means the services provided by the Contractor or Stakeholder to ACSA;

1.5 "Stakeholder" refers to companies conducting business at ACSA premises or within close proximity where there is an interface with ACSA operations;

1.6 "The OHS Act" refers to Occupational Health and Safety Act 85 of 1993, as amended;

"The COID Act" refers to Compensation for Occupational Injuries and Diseases Act 61 of 1997, as amended; and

1.7 "SHE" means Safety, Health and Environment.

GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

a) 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.
b) Section 37 of the Occupational Health & Safety Act potentially punishes Employers for unlawful acts or omissions of Mandatories where a Written Agreement between the parties has not been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATORY.
c) All documents attached or refer to in the above Agreement form an integral part of the Agreement.
d) 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.
e) Mandatories who utilise the services of other contractors must conclude a similar Written Agreement with those companies.
f) Be advised that this Agreement places the onus on the Mandatary to contact the CLIENT in the event of inability to perform as per this Agreement.
g) This Agreement shall be binding for all work the Mandatory undertakes for the Client and

remains in force for the duration of the contracted period as per Main Contract signed by both parties.

h) The contractor shall submit all necessary documentation as per SHE File Index to the Client seven days prior to starting with any work,.

THE UNDERTAKING

The Mandatory undertakes to comply with:

2. REPORTING

The Mandatary and/or his / her designated person shall report to the Client prior to commencing any work at the airports as well as when the activities change from the original scope of work.

3. WARRANTY OF COMPLIANCE

3.1 In terms of this agreement the Mandatary warrants that he / she agrees to the arrangements and procedures as prescribed by the Client and as provided for in terms of Section 37(2) of the OHS Act for the purposes of compliance with the Act.

3.2 The Mandatary further warrants that he / she and / or his / her employees undertake to maintain such compliance with the OHS Act. Without derogating from the generality of the above, or from the provisions of the said agreement, the Mandatary shall ensure that the clauses as hereunder described are at all times adhered to by himself / herself and his / her employees.

3.3 The Mandatary hereby undertakes to ensure that the health and safety of any other person on the premises is not endangered by the conduct of his / her activities and that of his / her employees.

4. SHE Risk Management

4.1 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 shallinclude 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.

4.2 The Mandatary shall review the risk registers as and when the scope of work changes and keep the latest version on the SHE File.

5. MEDICAL EMERGENCY RESPONSE

The Mandatary shall submit a detailed emergency response procedure to the Client OHS Department as part of the SHE File prior to start of work. The procedure shall stipulate how the Mandatary intends to attend to medical emergencies. In the sites where the Client has onsite clinic services, the medical staff can provide first line response and stabilise the patient

however the Mandatary shall then activate its own medical response procedure and transport the patient to the medical facilities for further medical attention.

6. APPOINTMENTS AND TRAINING

6.1 The Mandatary shall appoint competent persons as per Section 16(2) of the OHS Act. Any such appointed person shall be trained on any occupational health and safety matter and the OHS Act provisions pertinent to the work that is to be performed under his / her responsibility. Copies of any appointments and certificates made by the Mandatary shall immediately be provided to the Client.

6.2 The Mandatary shall at the beginning of the project or activities where there are 5 people and more people working appoint a full time dedicated Health and Safety resource whom shallbe dedicated to the project to ensure that Safety, Health and Environmental Requirements are met at all times. The allocated resource shall be based where the project is undertaken for the duration of the project or scope of work execution. The resource shall be trained and qualified on Occupational Health and Safety matters and the OHS Act provisions pertinent to the work that is to be carried out.

6.3 The Mandatary shall further ensure that all his / her employees are trained on the health and safety aspects relating to the work and that they understand the hazards associated with such work being carried out on the airports. Without derogating from the foregoing, the Mandatary shall, in particular, ensure that all his / her users or operators of any materials, machinery or equipment are properly trained in the use of such materials, machinery or equipment.

6.4 Notwithstanding the provisions of the above, the Mandatary shall ensure that he / she, his / her appointed responsible persons and his / her employees are at all times familiar with the provisions of the OHS Act, and that they comply with the provisions of the Act.

6.5 The Mandatary shall at all material times be responsible for all costs associated with the performance of its own obligations and compliance with the terms of this Agreement, unless otherwise expressly agreed by the Parties in writing.

7. SUPERVISION, DISCIPLINE AND REPORTING

7.1 The Mandatary shall ensure that all work performed on the Clients premises is done under strict supervision and that no unsafe or unhealthy work practices are permitted. Discipline regarding health and safety matters shall be strictly enforced against any of his / her employees regarding non-compliance by such employee with any health and safety matters.

7.2 The Mandatary shall further ensure that his / her employees report to him / her all unsafe or unhealthy work situations immediately after they become aware of the same and that he / she in turn immediately reports these to the Client within 48 hours with the action taken to mitigate the risk.

7.3 Where the hazard or risk identified is the responsibility of the Client to action, the Mandatary shall notify the Client OHS and Safety Department within 24 hours of becoming aware of the hazard or risk for prompt action to mitigate.

8. COOPERATION

8.1 The Mandatary and his/her employees shall provide full co-operation and information if and when the Client or his / her representative enquires into occupational health and safety issues concerning the Mandatary. It is hereby recorded that the Client and his / her representative shall at all times be entitled to make such an inquiry.

8.2 Without derogating from the generality of the above, the Mandatary and his / her responsible persons shall make available to the Client and his / her representative, on request, all and any checklists and inspection registers required to be kept by him / her in respect of any of his / her materials, machinery or equipment and facilities.

9. WORK PROCEDURES

9.1 The Mandatary shall, after having established the dangers associated with the work performed, develop and implement mitigation measures to minimize or eliminate such dangers for the purpose of ensuring a healthy and safe working environment.

9.2 The Mandatary shall then ensure that his / her responsible persons and employees are familiar with such mitigation measures. This includes the lock out tag out processes relating to the use of machinery.

9.3 The Mandatary shall implement any other safe work practices as prescribed by the Employer and shall ensure that his / her responsible persons and employees are made conversant with and adhere to such safe work practices.

9.4 The Mandatary shall ensure that work for which a permit is required by the Employer or any statute is not performed by his / her employees prior to the obtaining of such a permit.

10. HEALTH AND SAFETY MEETINGS

10.1 OHS Act requires that Health and Safety Committees be established in case where employee count exceeds 20 onsite, however due to the duration and the nature of the scope of work executed by the contractors and stakeholders enforces that regardless of employees at the airports. The Mandatary shall establish his / her own health and safety committee(s) and ensure that his / her employees, being the committee members, hold health and safety representatives to attend the Employer's health and safety committee meetings on monthly basis or quarterly whichever is applicable as per contractor requirement.

10.2 The Mandatary Section 16(2) appointed and SHE resource shall attend the Client SHE meetings as per the schedule communicated. In cases where the Mandatary delegated resources are not able to attend the meeting, an apology shall be submitted to the Client OHS Manager 24 hours before the meeting. An alternative representative shall be deployed to attend the meeting on the half of the Mandatary.

10.3 The Mandatary appointed Section 16(2) and SHE resource shall not skip more than three SHE Committee meetings a year.

11. COMPENSATION REGISTRATION/INSURANCE

11.1 The Mandatary 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 or stakeholder is in good standing with the Compensation Fund or Licensed Insurer.

11.2 The Mandatary 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.

11.3 The Mandatary shall provide the Client with Public Liability Insurance Cover as required by the Main Contract

11.4 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.

11.5 The Mandatary shall send updated Letter of Good Standing to the Client as and when the Mandatary receives it to ensure that the most valid version is available.

12. MEDICAL EXAMINATIONS

12.1 The Mandatary shall ensure that all his / her employees undergo routine medical examinations and that they are medically fit for the purposes of the work they are to perform.

12.2 Copies of such medical fitness certificates shall be made available to Client as part of the SHE file for review to ensure that they have been conducted by a reputable Occupational Health Practitioner registered with Health Professions Council of South Africa (HPCSA) as a doctor and specialist Occupational Medical Practitioner. Any other additional medical assessment shall be conducted in line with risk exposures.

12.3 Standard (Basic) medical tests shall constitute the following assessments as minimum:

- Individual's history of general and previous occupational health
- Comprehensive physical examination for evaluation of systemic function
- Blood Pressure Measurement
- Weight, Height and Body Mass Index
- Urine screening
- Drug screening
- Audio screening
- Lung Function Test
- Keystone eye test
- Work at Height Questionnaire
- Muscular skeletal questionnaire

13. INCIDENT REPORTING AND INVESTIGATION

13.1 All Safety, Health and Environmental Incidents shall be reported to the Client OHS and Safety Department within two hours from the time of occurrence via a phone call, sms or

email or before end of shift. This shall be followed by a formal report in a form of a preliminary report within forty eight (48) hours.

13.2 All incidents referred to in Section 24 of the OHS Act shall be reported by the Mandatary to the Department of Labour and copies of such reporting to be sent to the Client. The Mandatary shall further be provide with copies of any written documentation and medical reports relating to any incident.

13.3 The Client retains an interest in the reporting of any incident as described above as well as in any formal investigation and/or inquiry conducted in terms of section 32 of the OHS-Act into such incident.

13.4 The Client reserves a right to hold its own investigation into any incident where it deems it is not satisfied with the incident investigation or where the severity of the incident is fatal or damage beyond a value of R1 million and above.

14. SUBCONTRACTORS

14.1 The Mandatary shall notify the Client of any subcontractor he / she may wish to source to perform work on his / her behalf on the Client premises. It is hereby recorded that all the terms and provisions contained in this clause shall be equally binding upon the subcontractor prior to the subcontractor commencing with the work. Without derogating from the generality of this paragraph:

14.2 The Mandatary shall ensure that the sub contractor meets all the requirements and is competent for the scope of work contracted for. This includes that approval of the SHE file, SHE Plans associated with the work.

15. SECURITY AND ACCESS

The Mandatary shall request and familiarise its employees with the Client security rules which is not included in this agreement.

16. FIRE PRECAUTIONS AND FACILITIES

16.1 The Mandatary shall ensure that all his / her employees are familiar with fire precautions at the site(s), which includes fire-alarm signals and emergency exits, and that such precautions are adhered to.

16.2 This includes participating on planned and unplanned emergency drills organised the Client.

17. FACILITIES

The Mandatary shall have a program to upkeep and maintain the facilities leased out to it by the Client as stipulated on lease agreement.

18. HYGIENE AND CLEANLINESS

The Mandatary shall ensure that the work site, ablution, offices and surround area is at all times maintained to the reasonably practicable level of hygiene and cleanliness. In this

regard, no loose materials shall be left lying about unnecessarily and the work site shall be cleared of waste material regularly and on completion of the work.

19. INTOXICATION AND SUBSTANCE ABUSE

19.1 Entry to the airside is subjected to Aviation Safety Requirements in line with Client Substance Abuse Policy. No intoxicating substance of any form shall be allowed on site where airside or land side. Any person suspected of being intoxicated shall not be allowed on the site. Any person required to take medication shall notify the relevant responsible person thereof, as well as the potential side effects of the medication.

19.2 The Client reserves a right to do substance abuse testing and main entry points for the Mandatary employees.

19.3 Intoxication limits shall be adhered to as stipulated on Client Substance Abuse Policy.

19.4 Records of substance abuse testing shall be filed on the SHE File and made available to the Employer on request.

20. PERSONAL PROTECTIVE EQUIPMENT

20.1 The Mandatary shall ensure that his / her responsible persons and employees are provided with adequate personal protective equipment (PPE) for the work they may perform and in accordance with the requirements of General Safety Regulation 2 (1) of the OHS Act. The Mandatary shall further ensure that his / her responsible persons and employees wear the PPE issued to them at all times.

20.2 The Mandatary shall monitor compliance to PPE of his/her own employees at all times, The Client can at its discretion conduct random PPE compliance inspections and these can be recorded officially on the Client non-conformance reporting tool.

20.3 The Mandatary shall keep records PPE Control cards of each employee those shall be kept on SHE File.

21. PLANT, MACHINERY AND EQUIPMENT

21.1 The Mandatary shall ensure that all the plant, machinery, equipment and/or vehicles he / she may wish to utilize on the Client premises is/are at all times of sound order and fit for the purpose for which it/they is/are attended to, and that it/they complies/comply with the requirements of Section 10 of the OHS Act.

21.2 Where the Mandatory's equipment interfaces to the Client's equipment's, a joint risk assessment shall be conducted by the Mandatary and the Client OHS department in order for the risks to be mitigated prior to the use of such equipment's. It is the responsibility of the Mandatary to notify the Client OHS department of such equipment's and machinery.

21.3 In accordance with the provisions of Section 10(4) of the OHS Act, the Mandatary hereby assumes the liability for taking the necessary steps to ensure that any article or substance that it erects or installs at the sites, or manufactures, sells or supplies to or for the Client, complies with all the prescribed requirements and shallbe safe and without risks to health and safety when properly used.

22. USAGE OF THE CLIENT'S EQUIPMENT

22.1 The Mandatary hereby acknowledge that his / her employees are not permitted to use any materials, machinery or equipment of the Employer unless the prior written consent of the Client has been obtained, in which case the Mandatary shall ensure that only those persons authorized to make use of same, have access thereto.

22.2 The Client shall ensure that it isolates and apply LOTO on any equipment's and machinery where there is an unexpected start up or flow of energy. The Mandatary has a responsibility to apply its own LOTO procedures before starting with work and post the use of the equipment and machinery.

23. PERMIT MANAGEMENT

23.1 The Mandatary shall ensure that work for which the issuing of permit to work is required shall not be performed prior to the obtaining of a duty completed approved permit by the Client or relevant Authority.

23.2 In the context of the Client, the following activities are regarded as high risk activities and a permit to work shall be obtained prior to starting with the activities at any site:

- Cold Works Permit
- Hot Work Permit
- Confined Space Entry Permit
- Work At Heights Permit

24. TRANSPORTATION

24.1 The Mandatary shall ensure that all road vehicles used on the sites are in a roadworthy condition and are licensed and insured. All drivers shall have relevant and valid driving licenses and vehicle shall carry passengers unless it is specifically designed to do so. All drivers shall adhere to the speed limits and road signs on the premises at all times.

24.2 No employees on premises permitted in back of LDV (bakkie) and in front of LDV each driver and passenger must have a separate seat belt.

24.3 In the event that any hazardous substances are to be transported on the premises, the Mandatary shall ensure that the requirements of the Hazardous Substances Act 15 of 1973 are complied with fully all times.

25. CLARIFICATION

In the event that the Mandatary requires clarification of any of the terms or provisions of this agreement, he / she should contact the Client OHS Department.

26. DURATION OF AGREEMENT

This agreement shall remain in force for the duration of the work to be performed by the Mandatary and/or while any of the Mandatary's employees are present on the Client site.

27. NON-COMPLIANCE WITH THE AGREEMENT

If Mandatary fails to comply with any provisions of this agreement, the Client shall be entitled to give the Fourteen (14) days' notice in writing to remedy such non-compliance and if the Mandatary fails to comply with such notice, then the Client shall forthwith be entitled but not obliged, without prejudice to any other rights or remedies which the Mandatary may have in law,

- Apply penalties as stipulated on the matrix below; or
- to claim immediate performance and/or payment of such obligations.
- Should Mandatary continue to breach the contract on three occasions for the same deviation, then the Client is authorised to suspend the main contract without complying with the condition stated in clause above.

28. INDEMNITY

The Mandatary hereby indemnifies the Client against any liability, loss, claims or proceedings whatsoever, whether arising in Common Law or by Statute; consequent personal injuries or the death of any person whomsoever (including claims by employees of the Mandatary and their dependents); or consequent loss of or damage to any moveable or immoveable property arising out of or caused by or in connection with the execution of the Mandatary's contract with the Client, unless such liabilities, losses, claims or proceedings whatsoever are attributable to the Client's faults. The Mandatary or his/her employees is liable to prove without reasonable doubt that the loss is due to the Client's fault or negligence.

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 shallat all times comply with the following conditions:

a) 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.
b) The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the OHS Act 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.
c) The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the OHS Act 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.

29. FURTHER UNDERTAKING

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.

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 OHS Act 85 of 1993 and its regulations are complied with.

Mandatary – WCA/ Federated Employers Mutual No…….

Expiry date …….

_____ _____
SIGNATURE ON BEHALF OF MANDATARY **DATE**
(Warrant his authority to sign)

Witnesses:

1. _____

2. _____

_____ _____
SIGNATURE ON BEHALF OF THE CLIENT **DATE**
AIRPORT COMPANY SOUTH AFRICA

Witnesses:

3. _____

4. _____

ANNEXURE C5.4 – ENVIRONMENTAL TERMS AND CONDITIONS

ACSA Service & Maintenance Contractors
Environmental Terms and Conditions to Commence Work - EMS 048

The following Environmental Terms and Conditions shall be strictly adhered to by all contractors when conducting works for ACSA. ACSA shall audit contractor activities, products and services on an ad hoc basis to ensure compliance to these environmental conditions. Any pollution clean-up costs shall be borne by the contractor.

ISSUE	REQUIREMENT
Environmental Policy	ACSA's Environmental Policy shall be communicated, comprehended and implemented by all ACSA appointed contractor staff.
Storm water, Soil and Groundwater Pollution	• No solid or liquid material may be permitted to contaminate or potentially contaminate storm water, soil or groundwater resources. • Any pollution that risks contamination of these resources must be cleaned-up immediately. Spills must be reported to ACSA immediately. Contractors shall supply their own suitable clean-up materials where required. • Washing, maintenance and refuelling of equipment shall only be allowed in designated service areas on ACSA property. It is the contractor's responsibility to determine the location of these areas. • No leaking equipment or vehicles shall be permitted on the airport.
Air Pollution	• Dust: Dust resulting from work activities that could cause a nuisance to employees, or the public shall be kept to a minimum. • Odours and emissions: All practical measures shall be taken to reduce unpleasant odours and emissions generated from work related activities. • Fires: No open fires shall be permitted on site.
Noise Pollution	• All reasonable measures shall be taken to minimise noise generated on site as a result of work operations. • The Contractor shall comply with the applicable regulations with regard to noise.
Waste Management	• Waste shall be separated as general or hazardous waste. • General and hazardous waste shall be disposed of appropriately at a permitted landfill site should recycling or re-use of waste not be feasible. • Under no circumstances shall solid or liquid waste be dumped, buried or burnt. • Contractors shall maintain a tidy, litter free environment at all times in their work area. • Contractors must keep on file: 1. The name of the contracting waste company 2. Waste disposal site used. 3. Monthly reports on quantities – separated into general, hazardous and recycled. 4. Maintained file of all Waste Manifest Documents and Certificates of Safe

	Disposal 5. Copy of waste permit for disposal site This information must be available during audits and inspections.
Handling & Storage of Hazardous Chemical Substances (HCS)	• All HCS shall be clearly labelled, stored and handled in accordance to Materials Safety Data Sheets. • Materials Safety Data Sheets shall be stored with all HCS. • All spillages of HCS must be cleaned-up immediately and disposed of as hazardous waste. (HCS spillages must be reported to ACSA immediately). • All contractors shall be adequately informed with regards to the handling and storage of hazardous substances. • Contractors shall comply with all relevant national, regional and local legislation with regard to the transport, storage, use and disposal of hazardous substances.
Water and Energy Consumption	ACSA promotes the conservation of water and energy resources. The contractor shall identify and manage those work activities that may result in water and energy wastage.
Training & Awareness	The conditions outlined in this permit shall be communicated to all contractors and their employees prior to commencing works at the airport.

Penalties

Penalties shall be imposed by ACSA on Contractors who are found to be infringing these requirements and/or legislation. The Contractor shall be advised in writing of the nature of the infringement and the amount of the penalty. The Contractor shall take the necessary steps (e.g. training/remediation) to prevent a recurrence of the infringement and shall advise ACSA accordingly.
The Contractor is also advised that the imposition of penalties does not replace any legal proceedings, the Council, authorities, land owners and/or members of the public may institute against the Contractor.

Penalties shall be between R200 and R20 000, depending upon the severity of the infringement. The decision on how much to impose shallbe made by ACSA's Airport Environmental Management Representative in consultation with the Airport Manager or his/her designate and shallbe final. In addition to the penalty, the Contractor shall be required to make good any damage caused as a result of the infringement at his/her own expense.

I, _____ (name & surname) of _____ _____ (company) agree to the above conditions and acknowledge ACSA's right to impose penalties should I or any of my employees or sub-contractors fail to comply with these conditions.

Signed: _____ on this date: _____ (dd/mm/yyyy)

at: _____ (airport name).

Annexure C5.5: ACSA Construction Environmental Management Plan

1. Background

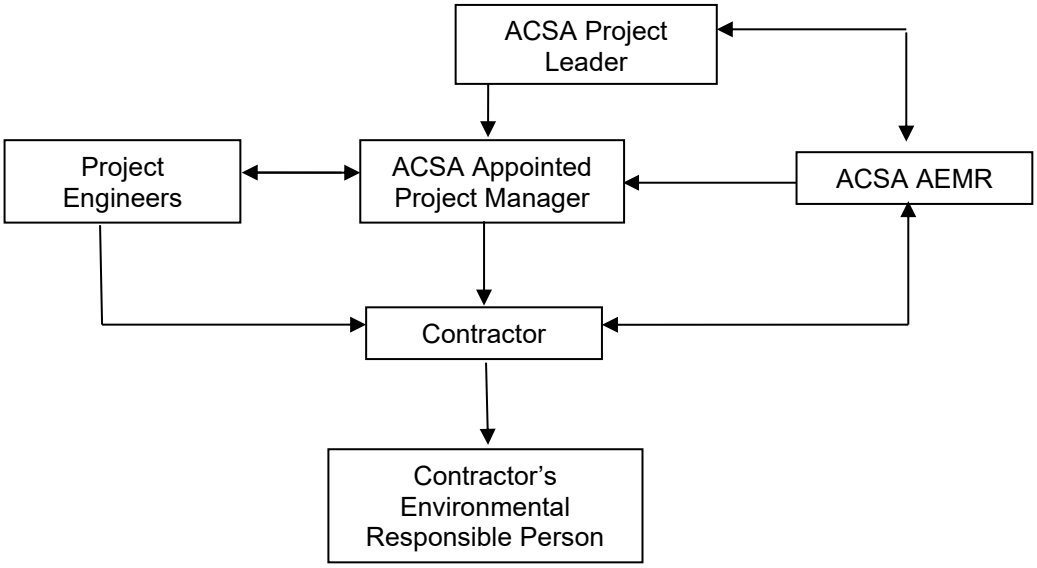
The purpose of this Environmental Management Plan (EMP) is to co-ordinate mitigation, rehabilitation, and monitoring measures of construction projects at ACSA airports such that environmental pollution and risks are minimized as far as possible.

This EMP is provided to contractors at the tender stage to ensure all costs associated with this EMP can be appropriately costed.

2. Organisational Structure

It is essential that an organisational structure is established early in the construction phase of the project and that all parties concerned accept the structure. This identifies the responsibilities and the authority of the ACSA Project Leader, design team, Project Manager (PM), consulting engineers and the numerous contractors and sub-contractors.

Responsibility for the application of the construction phase EMP for the project starts with ACSA's Project Leader. The ACSA Project Leader shalldevolve this responsibility to the designated and appointed Project Manager to assume this task within his or her portfolio, who shallin turn issue conformance instructions to the Contractor(s). The Contractor(s) shallappoint an Environmental Responsible Person who shallensure that the requirements of the EMP are implemented by monitoring and auditing the performance of the Contractor. ACSA's AEMR (Airport Environmental Management Representative) shall play an oversight role and report on overall EMP compliance to the ACSA Project Leader.



2.1 ACSA Project Leader

This is an ACSA employee ultimately responsible for the overall success of a project. This person could be within the Commercial, Maintenance & Engineering, Projects or

Airport Planning Department.

2.2 Project Manager (PM)

The PM is responsible for ensuring that on-site activities are undertaken in accordance with the requirements of the EMP. The PM shallthus need to ensure that:

- This EMP is included in the contracted agreements issued to the contractor(s)
- Environmental Method statements requested by ACSA's AEMR are provided prior to construction.
- Corrective action is implemented as required.
- Appropriate records and information regarding compliance with the EMP requirements are maintained and made available to the AEMR.
- Instructions as required by the AEMR are issued to the relevant contractor.

2.3 Contractor

- The Contractor shall ensure that all employees, sub-contractors, suppliers, etc. are fully aware of and comply with the environmental issues and requirements detailed in this EMP.
- The Contractor shall liaise closely with their Environmental Responsible Person and PM and shallensure that works on site are conducted in accordance with this EMP.
- The Contractor is to have a copy of the EMP on site and be familiar with its contents.
- The Contractor must ensure that all employees (permanent and temporary) and all sub-contractors that work on the site for longer than two days, receive Environmental Awareness Training prior to commencing work on site.
- The Contractor shall appoint an Environmental Responsible Person in writing, and shallforward this appointment to ACSA's AEMR
- Prior to construction commencement, the Contractor shall draft and submit written environmental method statements to ACSA's AEMR for approval, covering those activities which are identified (in this document and/or by the AEMR), as being potentially harmful to the environment.

Environmental Method Statements indicate how compliance shall be achieved and environmental risk shallbe mitigated. The environmental method statement shall state clearly:

- Timing of activities
- Materials to be used
- Equipment and staffing requirements
- The proposed construction procedure designed to implement the relevant environmental specifications.
- The system to be implemented to ensure compliance with the above; and
- Other information deemed necessary by the AEMR and Environmental Responsible Person.

Method statements shall be submitted at least five working days prior to expected commencement of work on an activity, to allow the AEMR time to study and approve the method statement. The contractor shall not commence work on that activity until such

time as the method statement has been approved in writing by the AEMR.

Due to changing circumstances, it may be necessary to modify method statements. In such cases, the proposed modifications must be indicated and agreed upon in writing between the AEMR and Environmental Responsible Person. The AEMR and Environmental Responsible Person must retain records of any amendments and ensure that the most current version of any method statement is being used.

2.4 Contractor's Environmental Responsible Person

The Contractor shall appoint / designate an environmental responsible person to liaise with ACSA's AEMR and ensure that the requirements set out in this EMP are implemented. The Environmental Responsible Person shall:

- Develop a system to ensure that the EMP and Environmental Method Statements are effectively implemented;
- Audit this system so that he/she can demonstrate to the AEMR that the EMP and Environmental Method Statements are being effectively implemented;
- Ensure that Contractors staff, sub-contractors, suppliers etc. are aware of their requirements in terms of the EMP and that they adhere to the EMP.
- Ensure that responsible persons for sub-contractors or sub-sub contractors are designated to carry out the requirements of the EMP and Environmental Method Statements;
- Have sufficient authority to issue site instructions to the Contractors staff on their site.
- Ensure that the Contractor and his Subcontractors and his employees have received the appropriate environmental awareness training before commencing on site.
- Meet with the Contractor to discuss the implementation of and non-conformances with this document.
- Identify appropriate corrective action if non-compliance occurs or unforeseen environmental issues arise that require environmental management action.
- Keep a register of major incidents (spills, injuries, complaints, legal transgressions, etc) and other documentation related to the EMP.
- Issue stop orders when required.
- Report to ACSA's AEMR any problems (or complaints) related to conformance with this document which cannot first be resolved in co-operation with the Contractor and/or his Subcontractors.
- Assist in finding environmentally acceptable solutions to construction problems.

2.5 ACSA's AEMR shall:

- Request, review and approve environmental method statements from the Contractor.
- Undertake regular inspections (at least monthly, and more frequently at the AEMR's discretion) of the site in order to check for compliance with method statements as well as specifications outlined in this EMP.
- Provide an audit report to the ACSA Project Leader.

3. Environmental Specifications

3.1 Location of camp and depot

The Contractor's Camp and Materials Storage Area shall be located at a position approved by the AEMR. No site staff other than security personnel shall be housed on site.

The Contractor shall provide water and/or washing facilities at the Contractor's Camp for personnel.

The Contractor's Camp and Materials Storage Area shall be kept neat and tidy and free of litter.

3.2 Demarcation of the site & access

It is important that activities are conducted within a limited area to facilitate control and to minimise the impact on the existing natural environment, existing tenants, and other construction activities in the vicinity and public thoroughfares.

The Contractor shall demarcate the boundaries of the site in order to restrict his construction activities to the site. The Contractor shall ensure that all his plant, labour and materials remain within the boundaries of the site. Failure to do so may result in the Contractor being required to fence the boundaries of the site at his own expense to the satisfaction of the AEMR.

Security and access to the site must be controlled at all times.

3.3 Traffic control & safety

Traffic control and safety shall be done in accordance with the South African Traffic Safety Manual, with the relevant signs, flagmen, barriers, etc being provided at the various access points. Traffic control shall be done in co-operation with local traffic officials. All laws and regulations applicable on the public road system are enforceable on the construction site. Due to the activities involved in the construction phase, trucks and other related vehicles shallbe using the roads leading to the site. These vehicles shallneed to be roadworthy and abide by the speed limits. The Environmental Management Plan for the construction phase should monitor the impact on current traffic by additional construction vehicles to ensure noise, safety and dust issues are kept to a minimum.

3.4 Ablution facilities

The Contractor shall provide the necessary ablution facilities for all his personnel.

Chemical toilets shall be provided, with a minimum of one toilet per 15 persons. Toilets shall be easily accessible and shall be transportable. The toilets shall be secured to prevent them from blowing over, and shall be provided with an external closing mechanism to prevent toilet paper from being blown out. Toilet paper dispensers shall be provided in all toilets. Toilets shall be cleaned and serviced regularly by a reputable toilet servicing company. Toilets shall be emptied before long weekends and builders' holidays.

The Contractor shall ensure that chemicals and/or waste from toilet cleaning operations are not spilled on the ground at any time. Should there be repeated spillage of chemicals and/or waste (i.e. more than three incidents), the Contractor shall be required to place the toilets on a solid base with a sump at his own expense. Accumulations of chemicals and waste shallhave to be removed from the site and disposed at an approved waste disposal site or sewage plant.
Abluting anywhere other than in the toilets shall not be permitted. Repeated use of the veld or other areas for ablution purposes (i.e. more than three incidents) may result in the guilty party being given a spot fine. The Contractor shall also be responsible for cleaning up any waste deposited by his personnel.

3.5 Domestic wastewater

Wastewater from any other ablution or kitchen facilities on site shall be discharged into a suitable conservancy tank. The Contractor shall be responsible for ensuring that the system continues to operate effectively throughout the project and that the conservancy tank is emptied as required during the project. The Contractor shall employ a suitable qualified sub-contractor or the local authority to empty the conservancy tank.

3.6 Environmental training

According to the National Environmental Management Act (107 of 1998), any costs incurred to remedy environmental damage shall be borne by the person responsible for that damage; it is therefore critical that the contractors read and understand the requirements of this document and any succeeding documents pertaining to environmental requirements before construction commences. It is a requirement of the act that everyone takes reasonable measures to ensure that they do not pollute the environment. Reasonable measures include informing and educating employees about the environmental risks of their work and training them to operate in an environmentally acceptable manner.

Training is fundamental to the successful implementation of the EMP. All personnel whose work may result in an impact on the environment must receive appropriate training in the environmental procedures to be followed. In this regard, the following must be fulfilled:

- All personnel working on the construction site must attend an environmental awareness training workshop conducted by the Environmental Responsible Person prior to commencing work on site. The purpose of the workshop is to provide staff with the information they require to enable them to meet the requirements of the EMP. The Environmental Responsible Person may call upon the services of a specialist environmental education translator should this be required. Contractors, sub-contractors and all their staff must attend.
- The Environmental Responsible Person shall keep a register of all personnel attending the environmental awareness training workshops; attendance records must be filed and available on site.
- All staff must be trained in emergency response procedures; attendance records must be filed and available on site.
- Environmental awareness posters are to be displayed on site. Environmental ‘do’s and don’ts’ must be clearly illustrated. The posters shall use pictures to convey the intended message and any explanatory text shallbe in English and the local dialect.

3.7 Solid waste management

Solid waste includes construction debris (e.g. packaging materials, timber, cans etc.) waste and surplus food, food packaging etc.

The Contractor shall institute an on-site waste management system that is acceptable to the AEMR in order to prevent the spread of refuse within and beyond the site. The Contractor is reminded that wind velocities on the construction site can be extremely high.

All waste shall be collected and contained immediately. The Contractor shall institute a weekly clean-up of the site. This daily/weekly clean up shall be for the Contractor's account.

The Contractor shall not dispose of any waste and/or construction debris by burning or burying. The use of waste bins and skips is essential. The bins shall be provided with lids and an external closing mechanism to prevent their contents from blowing out. The Contractor shall ensure that all waste is deposited by his employees in the waste bins for removal by the Contractor. Bins shall not be used for any purposes other than waste collection and shall be emptied on a regular basis. All waste shall be disposed of off site at approved landfill sites.

Waste generated at the construction camps shall be separated into recyclable and non-recyclable waste, and shall be separated as follows:

- Hazardous waste (including used oil, diesel, petrol tins, paint, bitumen, etc.);
- Recyclable waste (paper, tins, glass);
- General waste; and
- Reusable construction material

Recyclable waste shall be deposited in separate skips/bins and removed off site for recycling. The Contractor may wish to enter into an agreement with the surrounding communities and/or his staff with regard to the collection and sale of recyclable and reusable materials.

Hazardous waste, including waste oil and other chemicals (e.g. paints, solvents) shall be stored in (an) enclosed area(s), and shall be clearly marked. If deemed necessary by the Environmental Responsible Person, the Contractor shall obtain the advice of a specialist waste expert concerning the storage of hazardous waste. Such waste shall be disposed of off site by a specialist waste contractor, at a licensed hazardous waste disposal site. The Contractor shall keep documentary proof of the safe disposal of all waste, which shallbe available for audit at all times and shallalso include the waste type and volume.

The Contractor is advised that spot fines for littering have been included in this document. Offenders found littering shallbe liable for the spot fine.

3.8 Protection of fauna and flora

All fauna and flora (unless alien) within and around the site shall be protected. Birds and animals shall not be caught or killed by any means, including poisoning, trapping,

shooting or setting of snares.

3.9 Protection of archaeological and palaeontological sites

If any possible palaeontological/archaeological material is found during excavations, the Contractor shall stop work immediately and inform the AEMR. The AEMR shallinform the South African Heritage Resource Agency (SAHRA) and arrange for a palaeontologist/archaeologist to inspect, and if necessary excavate, the material, subject to acquiring the requisite permits.

3.10 Water pollution prevention & management

The Contractor shall prevent pollution of surface or underground water and shall comply with the Water Act, 36 of 1998, and any other national, provincial and local legislation regarding the prevention of water pollution, including the pollution of groundwater and any wetland on site.

The Contractor must ensure that all reasonable precautions are taken to prevent the pollution of the ground and water resources as a result of site activities. Ground contamination may hinder or prevent the re-establishment of natural vegetation. The Contractor shall keep the necessary materials and equipment on site to deal with ground spills of any of the materials used or stored on site.

The Contractor shall ensure that no oil, petrol, diesel, etc is discharged onto the ground. Pumps and other machinery requiring oil, diesel, etc that is to remain in one position for longer than two days shall be placed on drip trays. The drip trays shall be emptied regularly and the contaminated water disposed of off site at a facility capable of handling such wastewater. Drip trays shall be cleaned before any possible rain events that may result in the drip trays overflowing, and before long weekends and holidays.

Stormwater and/or groundwater may accumulate on site during the construction period and there is the potential for this water to be contaminated as a result of construction procedures. The Contractor shall ensure that this water does not become contaminated. Contaminated water (e.g. cement washings, wastewater from ablution or kitchen facilities etc) shall be collected in a conservancy tank, removed from the site and disposed of in a manner approved by the AEMR.

3.11 Stormwater control

Contractors shall take reasonable measures to prevent erosion resulting from a diversion, restriction or increase in the flow of stormwater caused by the presence of their works, operations and activities. Any stormwater collected in bunded areas containing oils, fuels, chemicals or other potentially polluting substances shall be pumped out of the bund, collected in a suitable container and removed from the site for appropriate disposal.

Contractors shall provide adequate control measures to prevent stormwater damage and erosion during construction. Control measures should include the control by sumps and adequate pumping of water ingress into trenches below the water table. Stormwater should also be directed into attenuation ponds wherever possible. All methods of stormwater control during the construction phase are to be agreed and approved by the AEMR.

Berms and existing stormwater drainage systems shall be used to prevent surface run-off from entering site excavations.

3.12 Water resource management

Water is a scarce resource and shall be conserved wherever possible. The Contractor shall not waste water (e.g. water areas excessively etc). All leaking water pipes are to be repaired or replaced immediately. The Contractor shall provide all drinking water and water for construction purposes. Water shall not be used unnecessarily.

3.13 Pollution prevention and remediation

The Contractor must ensure that all reasonable precautions are taken to prevent the pollution of the ground and water resources as a result of site activities. Pollution could result from the release, accidental or otherwise, of contaminated runoff from construction camps, discharge of contaminated construction water, chemicals, oils, fuels, sewage, run off from stockpiles, solid waste, litter, etc.

The first activity to be undertaken once a spill occurs is to terminate the source of the spill and contain the polluted area.

All fuel, oil or hydraulic fluid spills are to be reported to the Project Manager/ Engineer, Environmental Responsible Person and AEMR so that appropriate clean-up measures can be implemented.

The Contractor shall keep the necessary materials and equipment on site to deal with ground spills of any of the materials used or stored on site. Sufficient quantities of suitable hydrocarbon absorbent or remediation materials must be present on site at all times. Absorbent “spill-mop-up” products need to be on hand – Enretech, Spillsorb or Drizit type products should be investigated for these purposes.

Concrete-mixing equipment (mixers and the like) shall not be discharged overland. Such water shall be collected in a conservancy tank, removed from the site and disposed of in the correct manner. The Contractor may consider reusing such water for washing other concrete equipment to minimise the amount required to be removed off site.

The Contractor is advised that cement and concrete are regarded as highly hazardous to the natural environment on account of the very high pH of the material, and the chemicals contained therein. Therefore the Contractor shall ensure that:

- concrete is mixed on mortar boards, and not directly on the ground;
- the visible remains of concrete, either solid, or from washings, are physically removed immediately and disposed of as waste. Washing the visible signs into the ground is not acceptable; and
- all aggregate is also removed.

Trucks delivering concrete shall not wash the trucks or the chutes on the site. All washing operations shall take place off site at a location where wastewater can be disposed of in the correct manner.

3.14 Servicing/fuelling of construction equipment

Servicing and fuelling should preferably occur off site.

However, if these activities occur on site, the Contractor shall ensure that all servicing of vehicles and equipment takes place in designated areas agreed upon by the AEMR. All waste shall be collected and disposed of off site at an appropriately licensed landfill site. All equipment that leaks onto the ground shall be repaired immediately or removed.

Similarly, no vehicles or machines shall be refuelled on site except at designated refuelling locations, unless otherwise agreed with the AEMR. The Contractor shall not change oil or lubricants anywhere on site except at designated locations, except if there is a breakdown or an emergency repair. In such instances, the Contractor shall ensure that he has Drizit pads (or equivalent) and/or drip trays available to collect any oil, fluid, etc.

3.15 Fuels and Chemicals

The Contractor shall take all reasonable precautions to prevent the pollution of the ground and/or water resources by fuels and chemicals as a result of his activities.

The Contractor shall keep the necessary materials and equipment on site to deal with ground spills of any of the materials used or stored on site.

The Contractor shall ensure that no oil, petrol, diesel, etc. is discharged onto the ground. Pumps and other machinery requiring oil, diesel, etc. that is to remain in one position for longer than two days shall be placed on drip trays. The drip trays shall be emptied regularly and the contaminated water disposed of off site at a facility capable of handling such wastewater. Drip trays shall be cleaned before any possible rain events that may result in the drip trays overflowing, and before long week ends and holidays.

The Contractor shall remove all oil-, petrol-, and diesel-soaked sand immediately and shall dispose of it as hazardous waste.

Should the Environmental Responsible Person/AEMR and/or the relevant authorities deem it necessary to institute a programme for the removal of contaminated ground resulting from the non-compliance of the controls detailed above, these costs shallbe for the Contractor's account. Remedial action shall be approved by the AEMR and relevant authorities, if appropriate.

3.16 Fuel & Hazardous Materials Storage

Contractors shall identify fuels and hazardous substances to be stored on the site and shall ensure that they know the effects of these substances on their staff and the environment. The Environmental Responsible Person shall keep a copy of a fuels and hazardous substance inventory which shall be available on site.

Contractors shall ensure that the quantities of fuels and chemicals on site are appropriate to the requirements and are stored and handled so as to avoid the risk of spillage. All fuels, oils and chemicals shall be confined to a specific and secured area. These materials shall be stored in an area with a concrete or other impervious base, which is adequately bunded.

The volume of the bund shall be two times the volume of the containers stored. Gas and fuel should not be stored in the same storage area, and any generators used on the site should also be placed on a bunded surface.

The Contractor shall be responsible for securing any permits / certificates that may be required in respect of fuel storage from the local authorities.

In addition, the following must be implemented:

- All fuel stores must be equipped with a fire extinguisher;
- Materials Safety Data Sheets must be available on site and filed accordingly.
- No vehicle servicing may take place on the site. Servicing of equipment that uses hydrocarbon fuels, oils, lubricants and other hazardous chemicals may only take place in the site camp under conditions approved by the AEMR;
- All fuels are to be stored within a lined / demarcated area in the Site Camp. No refuelling is to take place outside of this demarcated area unless authorised by the Environmental Responsible Person. Note that filling machinery in the field (on site) from canisters should be cleared with the Environmental Responsible Person and both a “no leak” funnel / pump and one of the above mentioned absorption products must be on hand in the event of such refuelling taking place.

3.17 Dust control

The Contractor shall be responsible for the continued control of dust arising from his operations, through measures including, but not limited to, spraying of water on bare areas, rotovating straw bales into the soil surface and the scheduling of dust-generating activities to times when wind velocity is low. Overhead sprayers shall not be used in windy conditions, because too much water shallbe lost to evaporation. The use of water carts is preferred.

3.18 Noise control

The Contractor shall take all reasonable precautions to minimise noise generated on site as a result of his operations, especially when working in areas or on activities that may impact on neighbouring land users.

The Contractor shall comply with the applicable regulations with regard to noise.

The Environmental Responsible Person and/or AEMR may inform adjacent land users, tenants and communities about the possibility of noise pollution and the approximate duration of the problem.

3.19 Emergency procedures

The Contractor shall ensure that emergency procedures are set up prior to commencing work. Emergency procedures shall include, but are not limited to, fire, spills, contamination of the ground, accidents to employees, use of hazardous substances, etc. Emergency procedures, including responsible personnel, contact details of emergency services, etc. shall be made available to all the relevant personnel and shall be clearly demarcated at the relevant locations around the site.

The Environmental Responsible Person shall advise the Contractor, PM and AEMR of any emergencies on site, together with a record of action taken.

3.19.1 Fires

The Contractor shall take all the necessary precautions to ensure that fires are not started as a result of his activities on site, and shall also comply with the requirements of the Occupational Health and Safety Act 85 of 1993.

No open fires shall be permitted on or off site. Closed fires or stoves shall only be permitted at designated safe sites in the construction camps. Fires shall also not be permitted near any potential sources of combustion, such as fuel stores, stockpiles of plant material etc.

The Contractor is advised that sparks generated during welding, cutting of metal or gas cutting can cause fires. Every possible precaution shall therefore be taken when working with this equipment near potential sources of combustion. Such precautions include having an approved fire extinguisher immediately available at the site of any such activities.

The Contractor shall be liable for any expenses incurred by any organisations called to assist with fighting fires, and for any costs relating to the rehabilitation of burnt areas.

No smoking shallbe permitted on the site except for within a designated area in the site camp. Suitable firefighting equipment must be readily available in this area.

The Contractor must ensure that the contact details of the nearest Fire Department are displayed on site (together with other emergency services) and that all persons involved with the project know the location of these numbers on site.

4. SITE CLEARANCE & REHABILITATION

4.1 Removal of topsoil

Following removal of vegetation from the site, all topsoil shall be removed (up to a maximum of 30 cm depth) and stockpiled for re-use in subsequent rehabilitation and landscaping activities. The stockpiles shall not be higher than 2 m in order to minimise composting. The stockpiles of topsoil shall be located in an area agreed with the AEMR.

4.2 Stabilisation of steep slopes

The disturbance of steep slopes, for example by the removal of vegetation, may result in slope instability and erosion by rain and surface run off. The Contractor shall ensure that slopes that are disturbed during construction are stabilised to prevent erosion occurring. Any erosion that does occur must be reinstated at the Contractor’s cost.

4.3 Rehabilitation

The Contractor shall be responsible for rehabilitating any areas cleared or disturbed for construction purposes that are to be incorporated into open space or buffer zones, as well as all spoiling. The Contractor shall revegetate such areas in accordance with the specification provided below.

The Contractor shall stabilise, by straw rotovation or other, any areas that are cleared or disturbed for construction purposes which are not going to be incorporated into open space or buffer zones (i.e. areas that shallbe subsequently developed by another party).

All construction equipment and excess aggregate, gravel, stone, concrete, bricks, temporary fencing and the like shall be removed from the site upon completion of the work. No discarded materials of whatsoever nature shall be buried on the site or on any other land not owned by ACSA.

4.4 Landscaping and preparation for re-vegetation

Areas that require reshaping shall be cut, filled and compacted so as to follow the contours of the surrounding landscape. Topsoil removed from the area initially shall be replaced. Care must be taken not to mix the topsoil with the subsoil during shaping operations. Should a crust form on the soil before revegetation is commenced, the Contractor shall, at his own cost, loosen the crust by scarifying to a depth of 150 mm.

5. MANAGEMENT AND MONITORING

This section focuses on the systems and procedures required to ensure that the environmental specifications are effectively implemented. Emphasis is on monitoring and penalties, aimed at ensuring compliance with this document.

5.1 General inspection monitoring and reporting

The Environmental Responsible Person shall:

- Inspect the site on a daily basis to ensure that the environmental specifications are adhered to.
- Maintain a record of major incidents (spills, impacts, complaints, legal transgressions etc) as well as corrective and preventive actions taken.
- Conduct regular internal audits (at least weekly) to ensure that the system for implementation of the EMP is operating effectively and keep records of these audits.
- Conduct monthly meetings for the duration of the project. These shallbe attended by the Environmental Responsible Person, Contractors Resident Engineers and sub-contractor representatives, and shallbe minuted and available for audit. The agenda shallcover compliance with the EMP and environmental method statements, results of audits, non-compliances and corrective and preventative actions with agreed dates, and environmental queries.

5.2 Penalties

Penalties may be imposed by the AEMR on Contractors who are found to be infringing these specifications. The Contractor shall be advised in writing of the nature of the infringement and the amount of the penalty. The Contractor shall determine how to recover the fine from the relevant employee and/or sub-contractor. The Contractor shall also take the necessary steps (e.g. training) to prevent a recurrence of the infringement and shall advise the AEMR accordingly.

The Contractor is also advised that the imposition of penalties does not replace any legal proceedings the Council, authorities, land owners and/or members of the public may institute against the Contractor.

Penalties may range between R200.00 and R20, 000.00, depending upon the severity of the infringement. The decision on how much to impose shallbe made by the AEMR, and shallbe final. In addition to the penalty, the Contractor shall be required to make good any damage caused as a result of the infringement at his own expense.

A preliminary list of infringements for which penalties shallbe imposed is as follows:

- Moving outside the demarcated site boundaries;
- Littering of the site and surrounds;
- Burying waste on site and surrounds;
- Smoking in the vicinity of fuel storage and filling areas and in any other areas where flammable materials are stored/used;
- Making fires outside designated areas;
- Defacement of natural features;
- Spillage onto the ground of oil, diesel, etc;
- Picking/damaging plant material;
- Damaging/killing wild animals; and
- Additional fines as determined by the AEMR and added to this list.

The AEMR may also order the Contractor via the ACSA Project Leader to suspend part or all the works if the Contractor repeatedly causes damage to the environment by not adhering to the EMP. The suspension shallbe enforced until the offending actions, procedure or equipment is corrected. No extension of time shallbe granted for such delays and all costs shallbe borne by the Contractor.

ANNEXURE C5.6 – CONTRACTOR'S INSTALLATION CONDITIONS AND HOUSE RULES

CONTRACTOR INSTALLATION CONDITIONS AND HOUSE RULES

The following must be adhered to by the Contractor:

CONSTRUCTION RULES

1. All deliveries that shallobstruct portions of the roadways or public routes for any period are to be restricted between 19h30 and 05h00 (Sunday to Friday) 15H30 and 05H00 (Saturday). No construction related vehicles are allowed on the roads alongside the terminal buildings. No queuing of delivery vehicles shallbe permitted on any part of the route to your site.

2. All logistics affecting operations are to be approved by the relevant ACSA Managers.

3. All work resulting in high levels of noise or disruption to airport operations shallbe restricted to hours between 19h30 and 05h00 (Sunday to Friday) 15H30 and 05H00 (Saturday).

4. All dust and debris resulting from construction work is to be contained within the hoarded site. Any materials and rubble outside the hoarded site shallbe removed by ACSA from the Airport without notice to yourselves and shallbe for your account.

5. All active services are to be protected.

6. Work shallbe allowed at night if the site is adequately illuminated.

7. All vehicles related to your works are to be parked within your hoarded site or in public parking with costs for your account. Any contractor vehicle towed for illegal parking shallbe for your account.

8. A parking access card can be procured for at a cost of R150.00 per card per month. This card must be applied for though the *Project Manager* at the ACSA Landside Department. Each card shallbe programmed accordingly with reference to the duration of the contract. Payment of these cards shallbe for the *Contractor's* own account and must be paid at the parking office at the start of a new month in advance.

9. The site is to be maintained in a reasonable state of tidiness at all times.

10. Rubble may not be accumulated on site. Suitable skips are to be provided for the works.

11. A health and safety plan is to be tabled with the ACSA Safety Department for approval prior to works proceeding.

12. Access to the site is subject to the current security policy in effect.

13. All work is to comply with the current ACSA Environment Management Plan.

14. Similarly the *Contractor* and its agents/sub-contractors are limited to their actual site establishment areas and places of work and under no circumstances shallmaterials, equipment, tools, cooking or any other disturbance be allowed in public areas and delivery of materials outside of the agreed routes is strictly prohibited.

15. Use of the public people mover infrastructure is prohibited.

16. The *Contractor* shallensure the proper handling and carting away of spoil material, and the cleaning of ablution areas set aside for the use of the *Contractor's* staff.

17. The *Contractor's* employees are to be clearly identifiable and they must be discouraged from visiting the public areas of the airport.

BUILDING WORK

1. All plumbing connections are to be approved by ACSA Maintenance Manager, Maintenance & Engineering Department.
2. All hoarding are to comply with the ACSA standard (ACSA Maintenance Manager, M&E Department).

3. The hoarding is to be maintained to ACSA's specifications at all times. Any costs incurred by ACSA for repairing your hoarding shallbe forwarded to yourselves for payment. To avoid this, ensure that the hoarding is maintained on a daily basis.

4. No existing finishes outside the works area line are to be changed without prior approval by the *Project Manager*.

ELECTRICAL

1. All electrical installations and loading being approved by ACSA Maintenance Manager, M&E Department, prior to any work being executed.

2. All cable installation to comply with the ACSA specification as a minimum and be approved by ACSA IT and ACSA Maintenance Manager, M&E Department.

MECHANICAL

1. All mechanical alterations or impact thereon, i.e. air-conditioning, be approved by the ACSA Maintenance Manager IAM Department prior to any work being executed.
- The use of any people mover infrastructure for delivery is to be approved by ACSA Maintenance Manager, M&E Department.

FIRE PROTECTION

1. All alterations to fire detectors and sprinklers or impact thereon to be approved by the ACSA Maintenance Manager, M&E Department and the Manager Airfield Services, prior to any work commencing.

SIGNAGE

1. All neon signage are to have fireman's switches connected.

2. All signage and advertising are to be contained within the construction site and approved by the *Project Manager* prior to installation.

APPROVAL / CERTIFICATION

1. All electrical works are to be certified by a registered electrical engineer or electrician in
    a. Terms of legislation with a Certificate of Compliance issued.

2. All structural works are to be certified by a registered structural engineer in terms of legislation.

3. All drawings are to be submitted to the *Project Manager/ Engineer* for approval.

4. Where applicable, plans are to be submitted to the George Municipality for approval and a reference number obtained. This reference number must be supplied to *Project Manager* involved. No work is to proceed without formal approval or exemption by the local Authority.

5. The *Contractor* is to ensure the design is fully integrated in terms of operations, emergency evacuations and disabled access.
6. The *Contractor* is to ensure that all relevant legislation is complied with.

7. All installations are to be approved prior to operations by the relevant ACSA divisions.

SPOT FINES

1. Under no circumstances shallthe *Contractor* be allowed to make use of any baggage trolley or other airport equipment. Should the Lessee or his agents/sub- contractors be seen making use of the aforementioned equipment, an immediate spot fine of R 3,000.00 per occurrence shallapply and such monies shallautomatically be invoiced to the *Contractor*.

2. The *Contractor* is to respect the operational environment in which their work shallbe performed. All conditions of approval are to be observed by the *Contractor*. A spot fine of R2 500.00 per occurrence of non-compliance shallbe charged to the *Contractor*.

3. All costs incurred to comply with the conditions stated are for the *Contractor's* account.

Signatures:

Contractor:

…….

Employer:

…….

Annexure C5.7: POPIA Agreement

CONFIDENTIALITY AND DATA PROTECTION

Save as provided in this clause (*Confidentiality and Data Protection*), each Party shall, and shall procure that its Affiliate and their respective officers, directors, employees, agents, auditors and advisors shall, treat as confidential all information relating to the other Party or its Affiliates thereof or relating to their respective businesses that is of a confidential nature and which is obtained by that Party in terms of, or arising from the implementation of this Agreement, which may become known to it by virtue of being a Party, and shall not reveal, disclose or authorise the disclosure of any such information to any third party or use such information for its own purpose or for any purposes other than those related to the implementation of this Agreement.

The obligations of confidentiality in this clause shall not apply in respect of the disclosure or use of such information in the following circumstances:

in respect of any information which is previously known by such Party (other than as a result of any breach or default by any Party or other person of any agreement by which such Confidential Information was obtained by such Party);

in respect of any information which is in the public domain (other than as a result of any breach or default by either Party);

any disclosure to either Party's professional advisors, executive staff, board of directors or similar governing body who (i) such Party believes have a need to know such information, and (ii) are notified of the confidential nature of such information and are bound by a general duty of confidentiality in respect thereof materially similar to that set out herein;

any disclosure required by law or by any court of competent jurisdiction or by any regulatory authority or by the rules or regulations of any stock exchange;

any disclosure made by a Party made in accordance with that Party's pursuit of any legal remedy;

any disclosure by a Party to its shareholders or members pursuant to any reporting obligations that Party may have to its shareholders or members, provided that each such shareholder or member is notified of the confidential nature of such information and is bound by a general duty of confidentiality in respect thereof materially similar to that set out herein;

In the event that a Party is required to disclose confidential information as

contemplated in this clause, such Party will:

advise any Party/ies in respect of whom such information relates (the "**Relevant Party/ies**") in writing prior to disclosure, if possible;

take such steps to limit the disclosure to the minimum extent required to satisfy such requirement and to the extent that it lawfully and reasonably can;

afford the Relevant Party/ies a reasonable opportunity, if possible, to intervene in the proceedings;

comply with the Relevant Party/ies' reasonable requests as to the manner and terms of such disclosure; and

notify the Relevant Party/ies of the recipient of, and the form and extent of, any such disclosure or announcement immediately after it was made.

Either Party may, by notice in writing, be entitled to demand the prompt return of the whole or any part of any confidential information supplied by it to the other Party, and each Party hereby undertakes to comply promptly with any such demand.

In line with the provisions of Protection of Personal Information Act, No 4 of 2013 (POPIA), particularly section 20 and 21, the service provider (referred to as Operator in POPIA) shall observe the following principles when processing personal information on behalf of the Company (referred to as Responsible Party in POPIA):

the Service Provider shall only act on the Company's documented instructions, unless required by law to act without such instructions;

the Service Provider shall ensure that its representatives processing the information are subject to a duty of confidence;

the Service Provider shall take appropriate measures to ensure the security of processing. The Service Provider shall ensure and hereby warrants that they have minimum IT and or physical security safeguard to protect personal information;

the Service Provider shall notify the Company immediately where there are reasonable grounds to believe that the personal information of a data subject has been accessed or acquired by any unauthorised person;

the Service Provider shall only engage a sub-operator with the Company's prior authorisation and under a written contract;

the Service Provider shall take appropriate measures to help the Company respond to requests from data subjects to exercise their rights;

taking into account the nature of processing and the information available, the Service Provider shall assist the Company in meeting its POPIA obligations in relation to the security of processing, the notification of personal information breaches and data protection impact assessments;

the Service Provider shall delete or return all personal information to the Company (at the Company's choice) at the end of the contract, and the service provider shall also delete existing personal information unless the law requires its storage; and

the Service Provider shall submit to audits and inspections. The Service Provider shall also give the Company whatever information it needs to ensure that the Parties meet their Section 20(1) obligations.

1. SIGNATURES

FOR AIRPORTS COMPANY SOUTH AFRICA

THUS DONE AND SIGNED AT _____ON THIS_____DAY OF _____2024.

_____

FOR SERVICE PROVIDER

THUS DONE AND SIGNED AT _____ON THIS_____DAY OF _____2024.

_____