SCOPE OF WORK

The appointment of a civil maintenance contractor for the maintenance and repairs of civil infrastructure on an ad-hoc basis at the Kimberley airport for period of 12 Months

Background

The objective of this scope is to provide maintenance service and repairs data for the civil infrastructure at Kimberly Airport. The maintenance and repair activities should be conducted within the ambit of all regulatory and best practice frameworks such as ICAO, OHSACT, SANS, IEC, BS, ANSI, ACSA Policies & Procedures, etc. The contractor shall be responsible for the maintenance, repairs and performance of the civil infrastructure to an extend that ACSA deems appropriate and economical.

Scope of work

DESCRIPTION OF THE WORKS

Employer's objectives

The purpose of this tender is to provide maintenance service on an adhoc basis for civil infrastructure at Kimberley Airport in a sustainable manner at the lowest operating and maintenance costs while ensuring compliance to general safety and aviation legislation.
The specifications and requirements in this document comprise the description of the Works. The Contractor will be appointed directly by the Airports Company of South Africa.

1. Description of the service

The objective of this scope is to provide maintenance service and repairs data for the civil infrastructure at Kimberly Airport. The maintenance and repair activities should be conducted within the ambit of all regulatory and best practice frameworks such as ICAO, OHSACT, SANS, IEC, BS, ANSI, ACSA Policies & Procedures, etc. The contractor shall be responsible for the maintenance, repairs and performance of the civil infrastructure to an extend that ACSA deems appropriate and economical.

The Contractor's main objective is to ensure that all infrastructure is effectively maintained and operating within all the relevant safety and quality compliances to ensure reliability of services for airport operations. It is essential that preventative maintenance is administered at the appropriate intervals to achieve this objective.
The contractor will be responsible to maintain the following Civil Infrastructure:

- Paved Surfaces (Asphalt, Concrete and Paved with Paving Blocks)
- Storm water Infrastructure
- Bulk Water Supply Infrastructure

- Sewer infrastructure
- Fencing
- Fire Simulator Tank
- Runway Markings
- Grading

Quality assurance requirement

Emphasis must be on improving system reliability and on ensuring that rostered maintenance work is indeed performed on scheduled date and intervals.
The Contractor shall ensure that works are carried out as per the Airport Company South Africa procedures, OHS Act, and applicable standards. Inspections prior and post work are to be carried out to ensure site cleanliness and equipment serviceability. Adherence to safety and good housekeeping must be maintained at all times. The facility handover process will be carried at the end of each service.
All work must be executed in accordance with prevailing industry norms and standards relating to quality. In this regard, the Contractor will be expected to draft quality plans for the Service Manager from time to time. Emphasis must be on improving equipment and facility availability conditions and on ensuring that rostered maintenance work is indeed performed as and when scheduled/required
Apart from the compliance to the defined ACSA ME procedures, a measure of ensuring quality of work will be adherence to the following (where applicable):

1. The Occupational Health and Safety (Act 85 of 1993)
2. Environmental Conservation Act (Act 50 of 2003)
3. Civil Aviation Act (Act 13 of 2009)
4. International Civil Aviation Organization (ICAO)
5. Municipal bylaws and regulations
6. Standards and specification of ACSA
7. Standards and specifications of the supply authority
8. Applicable standards and codes of practices,

Correction of defects

The Contractor shall report any defects (equipment & material) experienced whilst performing the services. Any defective plant / equipment (unserviceable) or material (unacceptable quality) shall be removed immediately from ACSA's premises. The Contractor shall ensure that replacement (backup / leased / new) equipment and material is sourced immediately in order to comply to the contractual conditions of the services.
All defects and non-conformances must be corrected immediately. Constraints that can prevent this must be communicated to the Service Manager (or his delegated person) as listed below:

1. Airport operations that will be interrupted with a direct effect of revenue income. Hence the work must be scheduled for after operational hours.
2. Lack of spares or expertise. Hence the work will be scheduled to be completed after the procurement of the required spares or specialist services.

Should the identified defect have a negative influence on the safety of persons or critical equipment - then the Contractor must inform the Service Manager (or his delegated person) to activate ACSA's relevant internal emergency procedures in an effort to mitigate the risk as fast as practicably possible. Any breakdown impacting on operations shall be attended-to until restored to good reliable condition. This implies that no breakdown may be left unattended or incomplete for the next day or shift.

	The Employer will hold the Contractor liable for any costs incurred by any party as a result of negligence or unreasonable poor performance by the Contractor including excessive time taken to effect repairs. **Extent of the works** The Contractor will be fully responsible for meeting all requirements in this document regarding the Works. The Contractor will be responsible for providing staff which are sufficiently skilled and qualified for successful execution of the works. The Contractor shall comply with the Minimum Staffing Schedule always – as stipulated in the Annexes. This may be amended by mutual arrangement between ACSA and the Contractor from time to time. The Contractor shall always remain responsible to ensure that the compliment and maintenance regime is sufficient to maintain the service levels and system performance indicators as stipulated in the Annexes. Should the Contractor not be able to maintain adequate system performance indicators due to constraints caused by the Employer, it shall be timeously reported, in writing, to the Contract Manager. Refer to the Annexes for the required system performance indicators. The Contractor will ensure that his/her staff compliment is of a sufficient quantity to allow for uninterrupted supply of labour in the event of his/her staff taking sick leave, paid leave and will allow for all staff related eventualities. The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and trustworthy to perform maintenance activities/procedures for the Works. The Contractor shall further ensure that any staff member reasonably suspected of partaking in criminal activities is immediately removed from site and his permit returned to and/or cancelled at the ACSA Permit Office. All work shall be charged according to the Activity Schedule. However, no labour shall be charged for any non-scheduled work, repair work or other work when carried out by a scheduled maintenance shift. **Location of the works** The Works are located at Kimberley Airport at various locations – mostly in controlled areas. It is crucial for the Contractor to note that Kimberley Airport is a National Key Point and governed as such. **Methods and procedures:** The Contractor must accept and respect the fact that the Airport is continuously undergoing construction and improvement and that a variety of stakeholders are involved in ACSA's business. Therefore, within reason and with prior arrangement with the Contractor, ACSA might require the following from time to time: • Assisting with emergency repairs on • Assisting with airport operations Re-scheduling of work to accommodate other contractors • Allowing access and aiding OEM suppliers to correct defects on equipment and/or systems • Pointing out services to consultants or other contractors • Providing access to other contractors • Attending co-ordination and planning meetings • Removing rubble and/or equipment from site relating to this contract • Training of ACSA operators and/or technicians • Providing of system data and/or statistics to ACSA

- Recommending improvements on maintenance procedures
- Recommending improvements on operational procedures
- Co-operating with ACSA Security relating to security issues

The ACSA Service Manager may instruct operational and works procedures to the Contractor as might be required from time to time. The Contractor will instruct his/her staff accordingly and implement measures to ensure that these procedures are strictly adhered to.

Response Times

Description	Benchmark
Availability	Notwithstanding the closure time required for breakdowns requiring spare part(s) or a second level of response; ➢ Lifts and stair lifts availability (per lift) shall be kept at or above 95% overall per month.
Response time	All breakdowns shall be responded to within: ➢ 8 hrs from the time the Contractor is notified of the breakdown - during normal working hours and after hours
Closure Duration	All breakdowns shall be resolved within: ➢ 4 hours from the time the Contractor arrives on site – during normal working hours ➢ 8 hours from the time the time Contractor arrives on site -after hours
Elevator Occupied	All elevator occupied calls shall be responded within: ➢ 30 minutes from the time the Contractor is notified, and the passengers shall be released immediately.
% of planned maintenance completed per month	100% of all planned maintenance shall be completed per month
Total breakdowns requiring a second level of response (the intervention of a Field Engineer or higher expertise)	➢ All Elevators breakdowns requiring a second level of response shall be resolved within 24 hours (subject to the lead time of required spares) and shall be limited to a total of 3 occurrences per month.

Low service damages

Low service damages are limited to a maximum of **25% of the fixed cost /month.**

Service level table

***Low service damage* Description**	**Amount**

Where a repair cannot be completed the same day due to the unavailability of a spare part.	R 5 000.00 (unless the unavailability of the spare part was agreed to by the Service Manager or his/her duly authorised representative)
Leaving a breakdown unattended or incomplete for another day or shift Not meeting call response and closure time SLA.	R 4 000.00 (unless the delay in repair was agreed to by the Service Manager or his/her duly authorised representative or unless the required spares are not available to complete the work)
Safety infringement (for example: leaving moving machinery exposed)	R 10 000.00 per incident
Availability not meeting requirements	R 6 000.00 per month

Suggested Maintenance Programme

The frequency will be determined by the onsite conditions. Should the need arise to perform any of the services described in the Scope of Work, the service provider will be issues with a Task Order to perform the service at the affected area.

MAINTENANCE ACTIVITIES		
Storm Water		
No	**Activity**	**Frequency**
1	Assess inlets, manholes, pipes, and channels for structure damage and repair all damaged infrastructure	As and When required
2	Clean all grid inlets, kerbs, parapets and manholes from rubble	As and When required
3	Clean all grid inlets, kerbs, parapets and manholes from sediment	As and When required
4	Clean all earth and concrete channels from vegetation, sediment and rubble	As and When required

5	Remove sediment and debris in and around the outfalls at canals	As and When required
6	Survey the stormwater infrastructure and ensure that all items appear on the stormwater drawing	As and When required
7	Clean and flush stormwater pipes	As and When required
Paved Surfaces (RWY, TWY, Apron, Helisquare, Roads, Parkades, Remote Building perimeters, Etcetera)		
8	Perform rubber deposit removal where required	As and When required
9	Ensure effective drainage by clearing all stormwater infrastructure on the paved surface and within the RWY & TWY strip area	As and When required
10	Repair Potholes and cracks with cold ready-mixtures on all paved surfaces. 1m² patches	As and When required
11	Ensure Surface markings are clearly visual by performing spot-treatment-painting activities as and when required on all paved surfaces	As and When required
12	Perform Surface marking activities (complete renewal of existing - blanket replacement) - sandblast areas where build-up is affecting friction coefients. Utilise surface marking spraying equipment.	As and When required
13	Perform sandblasting services to eliminate fracking surfaces and paint build-up on all paved surfaces (Where required)	As and When required
14	Ensure graded (ave = 1%) RWY & TWY strips by way of filling; cutting; compacting, from the RWY & TWY Edge to a width of 15m.	As and When required
15	Perform a structural integrity test on the entire footprint of the paved surface and provide a comprehensive report which will advise planned repair activities.	As and When required
16	Perform surface sealant application activities in order to increase the lifespan of the wearing coarse of pavement surfaces (as and when required)	As and When required

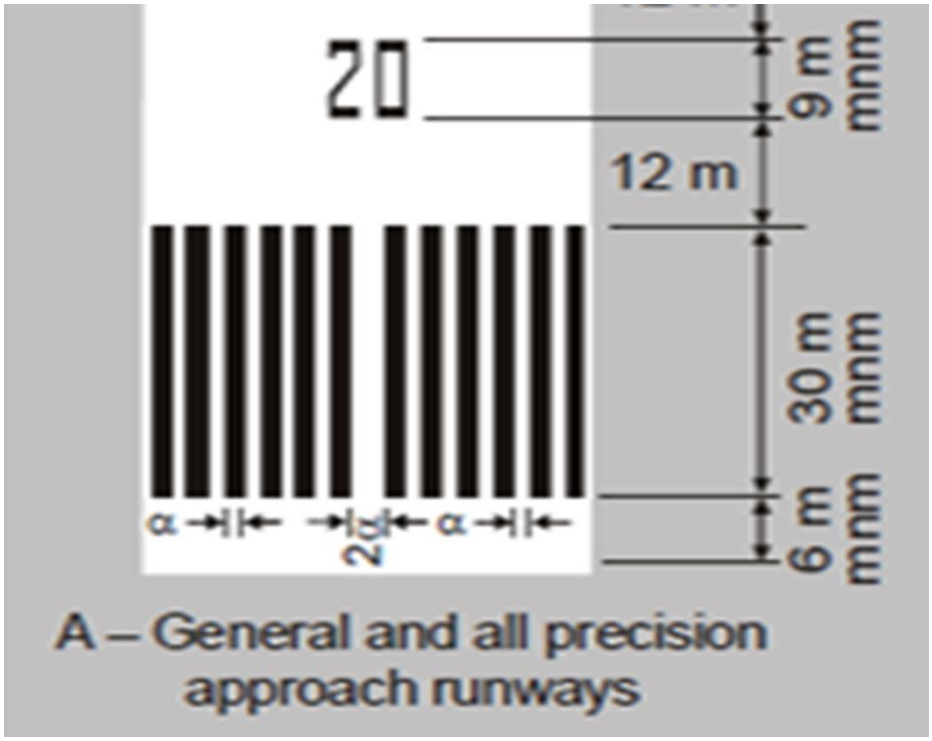
17	Perform UTFC repairs on the RWY surface - as and when required. This will be done in Patches of 5m².	As and When required
18	Inspect and repair lifting cable conduits and fracking cable-route filling material. Perform back-filling of cable routes on the RWY & TWY Surfaces by way of a bitumen based resin product.	As and When required
19	Mitigate water erosion on RWY, TWY & Apron (+ Road Shoulders) by instilling grass sods.	As and When required
20	Mitigate FOD (foreign object debris) generation on RWY, TWY by installing grass sods	As and When required
21	Remove fuel and oil contamination from Apron and other paved surfaces	As and When required
22	Inspect & replace Apron and turning circle concrete block joint insulation (when required)	As and When required
23	Inspect & repair concrete block crack and fracking (mostly on corners) with new concrete mixtures - when required	As and When required
24	Apply herbicide application on paved surface boundaries, perimeter fence and around AGL. Ensure band is compacted to prevent FOD generation. Also where the weed grows in the surfaces from cracks and potholes	As and When required
Bulk Water Supply		
25	Service main incoming water valves	As and When required
27	Service all underground isolating water valves	As and When required
28	Service all isolating water valves in the terminal building and to all remote buildings	As and When required
29	Service all water reservoir (x2) valves and equipment	As and When required
30	Record all water infrastructure pipe water pressures (i.e. incomers; loops; branches; etc)	As and When required

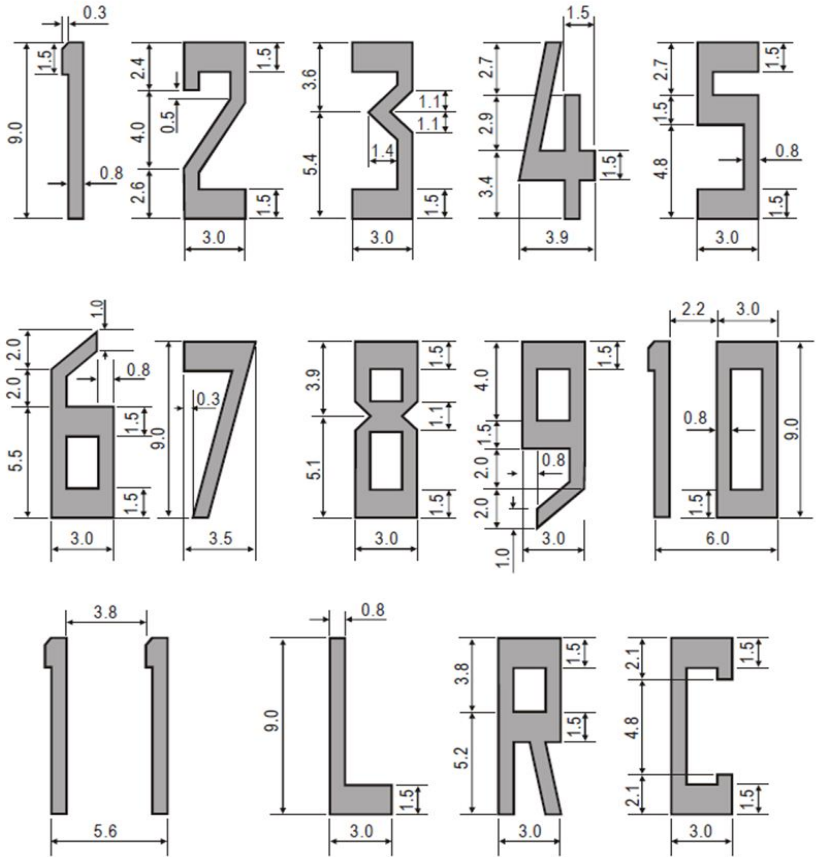
	31	Repair or replace all water infrastructure related failures (i.e. seepage; leaks; faulty seals; faulty joints; faulty valves, etc.)	As and When required
	32	Repair all water leaks and bursts	As and When required
	33	Service all water meters (including the immediate surrounding equipment and surfaces = 500mm radius)	As and When required
		Fence	
	34	Assessment and report (detailed technical report) the entire fencing footprint-infrastructure for structural non-conformance to ACSA's (Security and Fire & Rescue) policies and procedures: Fencing poles; Metal fence; Gates; Swinging mechanisms; Locking mechanisms; Barb-wire; Cross poles; Quality of the wood; Palisades panels.	As and When required
	35	Perform patch repairs on fences where the damage is not too big and does not degrade the structural integrity of the fence.	As and When required
	36	Perform sectional repairs on fences (mesh galvanized fence) with the same: (Utilise Galvanised 5x8mm wire mesh; Maintain minimum heights of the fences; All required repairs must be completed per pole to pole section; Replace where the 8mm diameter galvanised wire strings are broken / rusted but it must match with the existing fence	As and When required
	37	Replace all damaged (rotten) poles where needed: Poles to be installed by way of concrete base with the following minimum dimensions [750(d)x500(w)x500(b)mm]; Poles must be treated accordingly.	As and When required
	38	Repair all wooden poles by way of metal clamps: Where the top parts of the poles are busy splitting; Repair with a metal clamp to close the poles prior to painting the creosote; Mild steel, galvanised clamps to be used.	As and When required
	39	Paint all wooden poles with creosote	As and When required

	40	Close all holes underneath the perimeter fence to prevent animals from entering the airside. Utilise topsoil and compact as required to ensure level surface for effective grass cutting. Plant grass sods where required.	As and When required
	41	Paint all exposed mild steel fences and palisades to mitigate rust - Spot Treatment. After rust prevention paint application - apply silver top coat of paint for mechanical protection	As and When required
	42	Maintain all gates for alignment and closing	As and When required
		Earthworks	
	43	Ensure RWY & TWY strip and inner field is level and water puddling free. Perform earthworks (cutting, filling, grading, compacting, etcetera) to achieve this. Supply and deliver all required equipment and material. Apply grass sods where required. Where required	As and When required
	44	Ensure all road shoulders and pavement areas is level and water puddling free. Perform earthworks (cutting, filling, grading, compacting, etcetera) to achieve this. Supply and deliver all required equipment and material. Apply grass sods where required. Where required	As and When required
	45	Ensure all perimeter fence surface (3 meter strip on either side of the fence) is level and water puddling free. Perform earthworks (cutting, filling, grading, compacting, etcetera) to achieve this. Supply and deliver all required equipment and material. Apply grass sods where required. Where required	As and When required
		Fire Simulator Tank	
	46	Removal of the contaminated water from the fire simulator tank (**30,000litres**), to a correct disposal site. Contractor to be in possession of a Disposal Certificate. Payment of invoice can be held back until correct documentation is provided.	As and When required

	Cleaning of the Oil Separator, including the water jetting from the inlet to the oil separator, and the correct disposal of the oil. Contractor to be in possession of a Disposal Certificate. Payment of invoice can be held back until correct documentation is provided.	
	Grading	
47	Grading of perimeter fence and Runway End Safety Area and Imported earth filling, (G7 material) supplied and carted into the site using 10 cubic truck, compacted to 95% modified G5 Material	As and when required
	Runway Marking	
48	Runway markings includes threshold markings, edge lines, centre lines, touchdown lines etc	As and when required

Runway Markings





KIMBERLEY AIRPORT FOOTPRINT

PAVED SURFACE					
Infrastructure			**Specifications**		
No	**Item - Description**	**Location**	**Length (m)**	**Width (m)**	**Final layer Wearing Corse**
Runway surface					
1	RWY 02-20	Airside	3000	45	Asphalt (UTFC)
2	RWY 10-28	Airside	2800	45	Asphalt (UTFC)
Taxiway					
1	TWY A	Airside	814	22.7	Asphalt

2	TWY B	Airside	38	15	Asphalt
3	TWY C	Airside	743	22.7	Asphalt
Aprons					
1	Main Apron	Airside	TBC	TBC	Concrete
2	Northern Apron	Airside	TBC	TBC	Concrete
3	Southern Apron (by the Hanger)	Airside	TBC	TBC	Concrete
Service Roads					
1.	Service Roads	Airside	TBC	TBC	Asphalt/Paving
2	Service Roads	Landside	TBC	TBC	Asphalt
3	Service Roads	General Aviation	TBC	TBC	Aphalt
4	Perimeter Road	Airside	13,5km	3-6 M	Gravel
Parking Areas					
1	Public Shaded	Landside	Asphalt		
2	Staff Parking shaded	Landside	Asphalt		
3	Car Rental Parking shaded	Landside	Asphalt		
STORM WATER DRAINAGE					
Infrastructure			**Specifications**		
No	**Item - Description**	**Location**	**Type**		
Open Earth / Grassblocks / Conctrete Channels					
1	Concrete channel	Airside	Concrete		
2	Earth channel	Airside	Earth		
3	Underground channels	Airside / Landside	Concrete		
Stormwater pipes, and Manholes					

1	Various sizes and material	Airside / Landside	Concrete
2	Various sizes and material	Airside / Landside	Concrete
Culverts			
1	Concrete (various)	Airside/ Landside	
Catchpits			
1	Various	Landside	
2	Various	Airside	
SEWER INFRASTRUCTURE (KIM)			
Infrastructure			**Specifications**
No	**Item - Description**	**Location**	**Type**
Sewer Pipes and Manholes			
1	Various	Landside	Various
2	Various	Airside	Various
Septic Tanks			
1	One (1) septic tank	Landside	Concrete
Fire Simulator Tank			
1	Fire and Rescue	Airside	Concrete
2	Effluent Discharge permit Testing and Quality Testing (done annually)	Landside / Airside	Certificate

3	Emptied and Cleaning of Separator Sumps - Super Sucker Unit	Airside	Pits
4	Safe Disposal of Debris and oils	Airside	Certificate
BULK WATER INFRASTRUCTURE			
Infrastructure			**Specifications**
No	**Item - Description**	**Location**	**Type**
Water Tanks			
1	Bulk Water and pipe infrastructure	Airside	Concrete
2	New Water Tank and pipe infrastructure	Airside	Steel / concrete
Pipes and Valves (and manhole / chambers)			
1	Various	Airside / Landside	Concrete / PVC
Refiller point for Fire Tanks (fire hydrants)			
1	All Apron area	Airside	Steel
2	Parking area	Landside	Steel
Water Meters			
1	Bulk and Tenants meters (30 number)	Airside / Landside	Plastic
FENCING			
Infrastructure			**Specifications**
No	**Item - Description**	**Location**	**Material**
Fence			
1	Perimeter Fence and General Aviation	Airside	Diamond mesh and wooded poles

2	Perimeter Fence	Airside / Landside	Diamond mesh and steel poles
3	Parking Area fence	Landside	Vibacrete
4	Gates (10 number)	Airside / Landside	Steel / Diamond Mesh