

ALEXANDER BAY, VIOOLSDRIFT, ONSEEPKANS PORT OF ENTRY: APPOINTMENT OF SERVICE PROVIDER/S FOR THE MAINTENANCE AND REPAIRS OF BUILDING, CIVIL, MECHANICAL, ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

PART C2:

**PRICING DATA** 



# PG-02.1 (EC) PRICING INSTRUCTIONS – (GCC (2010) 2<sup>nd</sup> EDITION: 2010)

Project title:	Service Provider/s for t	rift, Onseepkans Port of the Maintenance and Re nfrastructure and Installat	pairs of Building, Civil,
Tender no:	H20/024 AI	Reference no:	N/A

# **C2.1 Pricing Instructions**

#### 1. GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Standard, Project and Particular Specifications) and the Drawings.

#### 2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the Standardized Specifications and the Particular Specifications, read together with the relevant clauses of the Project Specification and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

#### 3. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to remeasuring during the execution of the work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Standard, Project and Particular Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

#### 4. PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the *General Conditions* of *Contract 2010*. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Unauthorized changes made by the Tenderer to provisional items in the Bill of Quantities, or to the provisional percentages and sums in the Summary of the Bill of Quantities will lead to the disqualification of the Tenderer.



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#### 5. PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Tenderer omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer shall fill in rates for all items where the words "rate only' appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For 'Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

All rates and amounts quoted in the Bill of Quantities shall be in rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities.

The Tenderer shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works.
- (d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender.

#### 6. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

#### 7. ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication or addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.



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#### 8. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bill of Quantities are as follows:

No. = Number
% = Percent
Sum = Lump sum
PCsum = Prime cost sum
Prov sum = Provisional sum

m³.km = Cubic metre - kilometre

Km-pas = kilometre - pass m².pass = square metre - pass



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# **C2.2 Bill of Quantities**

#### **DEPARTMENT OF PUBLIC WORKS**

ALEXANDER BAY, VIOOLSDRIFT AND ONSEEPKANS LAND PORTS OF ENTRY: REPAIR AND MAINTENANCE OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

# **SCHEDULE OF QUANTITIES**

#### NB TENDERERS MUST COMPLETE THE SCHEDULE OF QUANTITIES IN BLACK INK

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
SANS	1.00	GENERAL				
1200 A PSA 8.3.1	1.01	Scheduled fixed-charge and value-related items:				
		.01 Fixed preliminary and general charges	-	-	sum	
PSA 8.4.1	1.02	Scheduled time-related items:				
		.01 Alexander Bay Port of Entry	month	36		
		.02 Vioolsdrift Port of Entry	month	36		
		.03 Onseepkans Port of Entry	month	36		
PSA 8.8		TEMPORARY WORKS				
PSA 8.8.4.1	1.03	Location and protection of existing services:				
		.01 Water and sewer pipes	-	-	sum	
		.02 Electrical and other cables	-	-	sum	
PSA 8.9	1.04	Special testing				
		.01 Special testing as required by the Engineer	-	PC	sum	32 000
		.02 Attendance and profit	%	32 000	%	
PSA 8.12	1.05	Call Centre:				
		.01 Call Centre for breakdown calls logged	-	PC	sum	66 000
		.02 Charge required by Contractor on sub item .01 above	%	66 000	%	
	Carried for	ı	<u>.                                    </u>			

PAYMENT						
REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought	forward				
	1.06	Prime Cost Sum:				
		.01 Housing for Engineer's representative	-	PC	sum	92 000
		.02 Charge required by Contractor on sub item .01 above	%	92 000	%	
	1.07	CLIENT CONTINGENCY INFRASTRUCTURE				
		.01 Provide facilities for client contingency infrastructure	-	PC	sum	165 000
		.02 Charge required by Contractor on sub item .01 above	%	165 000	%	
PSA 8.13	1.08	Occupational Health and Safety				
SI.01		.01 Compliance with OHS Act and Construction Regulations 2014	month	36		
SA.08	1.09	Update existing and supply complete key plan				
		.01 Alexander Bay Port of Entry	site	1		
		.02 Vioolsdrift Port of Entry	site	1		
		.03 Onseepkans Port of Entry	site	1		
SA.06	1.10	Maintenance Control Plan				
		Compile complete maintenance control plan as specified in SA 04.02 including monthly maintenance control sheets and recording				
		.01 Alexander Bay Port of Entry	site	1		
		.02 Vioolsdrift Port of Entry	site	1		
		.03 Onseepkans Port of Entry	site	1		
	Carried f	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought :	forward				
SA.07	1.11	Site Maintenance Record Keeping (monthly maintenance report for all schedules, checklists, reports, etc as detailed in specification SA 03.10 and maintenance control plan)				
		.01 Alexander Bay Port of Entry	month	36		
		.02 Vioolsdrift Port of Entry	month	36		
		.03 Onseepkans Port of Entry	month	36		
SA.09	1.12	Contingency allowance for operational damages at the ports of entry				
		.01 Alexander Bay Port of Entry	-	PC	sum	95 000
		.02 Charge required by Contractor on sub item .01 above	%	95 000	%	
		.03 Vioolsdrift Port of Entry	-	PC	sum	245 000
		.04 Charge required by Contractor on sub item .03 above	%	245 000	%	
		.05 Onseepkans Port of Entry	-	PC	sum	45 000
		.06 Charge required by Contractor on sub item .05 above	%	45 000	%	
	1.13	Training of EPWP Workers (Target: 15 EPWP Maintenance Workers)				
		Orientation, Life Skills Development and Technical Skills Training				
SN 10.01.01	1.14	.01 Orientation and Life skills development training for EPWP workers for an average 10 of days per EPWP worker (ref. SN 10.01.01)	-	PC	sum	45 000
		.02 Charge required by Contractor on sub item .01 above	%	45 000	%	
SN 10.01.02	1.15	.01 Technical skills training for EPWP workers for an average of 20 days per EPWP worker (ref. SN 10.01.02)	-	PC	sum	165 000
		.02 Charge required by Contractor on sub item .01 above	%	165 000	%	
	Carried f	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought f	orward				
SN 10.02.01	1.16	Traveling to Alexander Bay Port of Entry from the nearest local Township (based on a 20km return trip/EPWP worker) (3 workers x 3 years x 250 work days per year)	worker / day	2250		
SN 10.02.01	1.17	Traveling to Vioolsdrift Port of Entry from the nearest local Township (based on a 50km return trip/EPWP worker) (10 workers x 3 years x 250 work days per year)	worker / day	7500		
SN 10.02.01	1.18	Traveling to Onseepkans Port of Entry from the nearest local Township (based on a 10km return trip/EPWP worker) (2 workers x 3 years x 250 work days per year)	worker / day	1500		
SN 10.03	1.19	Penalty for not achieving the Local Labour Target (LLT) Percentage (%) difference between the contracted LLT percentage (%) and the actual LLT percentage (%) achieved in the performance of the contract. Also see SN 07.02	%	Tender Sum excl. VAT & CPA	1x(D - Do) 100	Rand value of penalty payable
SH	1.20	HIV / AIDS Awareness It is required of the Contractor to thoroughly study the Additional Specification SH: HIV / AIDS Requirements (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under the items hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.				
		The Contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative/Agent, notwithstanding the provisions of Clause 52 of the General Conditions of Contract for Works of Civil Engineering Construction or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.				
SH 07		.01 Awareness Champion Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services.	month	36		
	Carried fo	prward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought for	ward				
SH 04	.0	22 Awareness Workshops Selection and appointment of a competent Service Provider approved by the Representative/Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi- media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification.	month	36		
SH 04.03		Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period.	month	36		
SH 05	.0	Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period.	month	36		
SH 08		Monitoring HIV/AIDS awareness of workers, providing the Representative/Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out.	month	36		
	TOTAL SCI	HEDULE 1: CARRIED TO SUMMARY: GENERA	<u> </u>			

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
		BUILDING STRUCTURAL ELEMENTS				
BA.01	2.000	Supply and install cladding and sheeting:				
		.01 0,55 mm concealed fixed profiled double interlocking, Zincalume or equivalent approved sheeting with colour coating as existing (colour to be approved by Engineer) in:				
		.01 Roof covering fixed to timber or steel purlins	m²	128		
		.02 Ridge covering, 0.5mm	m	18		
		.03 Sidewall and other flashings	m	24		
		.02 10 mm Thick corrugated fibre cement or equivalent approved sheeting	m²	24		
BA.06	2.001	Carefully remove existing cladding and sheeting:				
		.01 Existing roof sheeting roof covering removed from timber or steel purlins or girts or rafters	m²	128		
BA.04	2.002	Rehabilitation of Roofs:				
BA.04		.01 Rehabilitation existing roof sheeting, seal joints and replace loose screws or re-fix sheets	m²	1874		
BA.05		.02 Re-align existing down pipes and gutters, including sealing joints	m	92		
BA.06	2.003	Supply and install roof insulation:				
		.01 White Bubble Foil insulation 4mm thick fixed on white straining wires to:				
		.01 Roofs	m²	128		
BA.06	2.004	Miscellaneous items:				
		.01 Items measured by area:				
		.01 Pure acrylic emulsion waterproofing membrane or glass-fibre tissue waterproofing sealing system	m²	12		
BB.01	2.005	Timber:				
		.01 Wrought SA Pine: Removal of existing and supply and install new for rehabilitation				
		.01 38 mm x 38 mm Wrought timber brandering	m	44		
		.02 76 mm x 52 mm Wrought timber purlins	m	32		
	Carried fo	orward				

BB.02	2.006 2.007	Ceilings:  .01 Gypsum board with H-profile pressed steel type jointing strips, including removal of redundant:  .01 6,4 mm ceilings  .02 Gypsum cornices:  .01 76 mm gypsum coved cornices including silicone sealant in contact joint with plastered brickwork  Joinery:  .01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile joiners	m² m	210 182	
	2.007	.01 Gypsum board with H-profile pressed steel type jointing strips, including removal of redundant:  .01 6,4 mm ceilings  .02 Gypsum cornices:  .01 76 mm gypsum coved cornices including silicone sealant in contact joint with plastered brickwork  Joinery:  .01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile	m	182	
BB.03		jointing strips, including removal of redundant:  .01 6,4 mm ceilings  .02 Gypsum cornices:  .01 76 mm gypsum coved cornices including silicone sealant in contact joint with plastered brickwork  Joinery:  .01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile	m	182	
BB.03		.02 Gypsum cornices:  .01 76 mm gypsum coved cornices including silicone sealant in contact joint with plastered brickwork  Joinery:  .01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile	m	182	
BB.03		.01 76 mm gypsum coved cornices including silicone sealant in contact joint with plastered brickwork  Joinery:      .01 Items measured by linear metre:      .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile			
BB.03		silicone sealant in contact joint with plastered brickwork  Joinery:  .01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile			
BB.03		.01 Items measured by linear metre:  .01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile	m	122	
	2.008	.01 15 x 225mm Fibre cement fascia or barge board fixed to roof timber including H-profile	m	122	
	2.008	board fixed to roof timber including H-profile	m	122	
	2.008				
SANS 1200 G		Strength concrete:			
8.4.3		.01 Class 20 MPa up to 75 mm thick concrete including breakout of existing and removal thereof:			
		.01 Footpaths, aprons, etc.	m²	120	
SANS 1200 H		STRUCTURAL AND BUILDING			
.200	2.009	High-tensile steel welded mesh and steel bars:			
		.01 Ref No 193 mesh in concrete	m²	120	
		.02 Ref No 245 mesh in concrete	m²	60	
		SANDBLASTING			
	2.010	Sandblasting to steel surfaces exposing steel for paint surface preparation	m²	25	
BD.01	2.011	Doors and windows: supply, install and removal of existing:			
BD.01		.01 Wooden doors:			
		.01 Solid hardwood core flush panel door, 40 mm thick x 813 mm wide x 2 032 mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	22	
		.02 Hollow core door, 40 mm thick x 813 mm wide x 2 032 mm high. All doors shall comply with the requirements of SANS specification 545 and bear the "MARK"	number	12	
	Carried fo	rward	· •		

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
		.03 Aluminium weather strip to 813 to 915 mm wide door	number	22		
		.04 Garage door roll up Aluzinc 2550 x 2100mm. Colour to match existing.	number	10		
		.02 Aluminium windows/doors and frames (Natural anodised)				
		.01 Aluminium 2-panel single slider sliding door 1500mm wide x 2100mm high	number	2		
		.02 Aluminium 2-panel single slider sliding door 2100mm wide x 2100mm high	number	2		
		.03 Steel door frames:				
		.01 1,6 mm thick pressed steel door frame for door size 813 mm x 2 032 mm high suitable for 115 mm wall	number	2		
		.02 1,6 mm thick pressed steel door frame for door size 813 mm x 2 032 mm high suitable for 230 mm wall	number	2		
3D.02		METALWORK				
	2.012	Replace hydraulic overhead door closer "Dorma TS91B" or similar approved as existing	number	6		
	2.013	Replace natural aluminium patio door roller system with heavy duty double roller unit.	number	40		
	2.014	Replace natural aluminium patio door roller guides	number	35		
	2.015	Supply and fit natural anodised aluminium tri panel sliding shower door 950x1850mm with clear safety glass	number	2		
	2.016	Supply and erect of 5.8m x 5.8m carport with Zincalume 0,58mm Klip-Lok 700 profile type or similar approved roof sheeting, with 76mm x 76mm x 2m square hot dipped galvanised tubing for posts fixed to hot dipped galvanised base plates incl. 75mm x 50 x 20 purlins and 150mm x 50 x 20 lip channels all hot dipped galvanised.	number	2		
	2.017	Supply and fit aluminium 50x50x4mm equal angles screwed to brick walls	m	25		
BD.02	2.018	Ironmongery, steelwork, glass, wall finishing's, etc:				
		.01 Supply, install and removal of existing:				
		.01 Standard polished brass casement stay to steel windows	number	15		
	Carried fo	.I prward			<u>I</u>	

Brought forw	.02	Standard polished brass sliding stay outward			
	.03	opening to steel windows	number	2	
		Anodised aluminium door handles	number	6	
	.04	Four lever mortice lockset including two keys, back plate and striking plate.	number	23	
	.05	Double Cylinder lockset, two keys, back plate and striking plate	number	20	
	.06	WC Indicator bolt, equipped with emergency release	number	18	
	.07	Stainless steel toilet paper dispensing units, capable of holding two toilet paper rolls (similar to existing)	number	2	
		3 mm thick Perspex signage for general information	m²	11	
		150 mm x 150 mm Aluminium "Woman/Men/Disabled" sign solid fill black engraved fixed to timber door or concrete walls	number	1	
	.10	Plastic coated washing line	m	250	
	.11	Stainless steel sanitizers (similar to existing)	number	2	
	.12	Stainless steel air freshener (similar to existing)	number	2	
	.13	Stainless steel she bins (similar to existing)	number	2	
	.14	Stainless steel soap dispenser (similar to existing)	number	2	
	.15	Hand dryer unit with blower output of 450 watt @ 20 000 rpm	number	2	
	.16	Stainless steel toilet paper dispensing units, capable of holding two toilet paper rolls (Franke or similar approved)	number	2	
	.17	Vertical Fabric Blinds as approved by Engineer fit to existing windows smaller than $1m^2$	m²	48	
	.18	Vertical Fabric Blinds as approved by Engineer fit to existing windows larger than 1m <sup>2</sup>	m²	64	
Carried forwa					

PAYMENT REFERS TO	ITEM NO		DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought for	ward					
			Galvanised heavy duty 2.8m diameter rotating washing line with upright dia of 48mm complete with concrete base, 30m plastic coated line, as approved by engineer	number	2		
			19 mm diameter chromium plated towel or hanging rail 650 mm long including end brackets	number	3		
			19 mm diameter chromium plated towel or hanging rail 1 200 mm long including end brackets	number	3		
		.22	Rubber door stops 35mm dia by 30mm high	number	22		
			380 mm x 610 mm high bathroom cabinet (white) with mirror, two doors, handles and one shelve	number	4		
			6 mm polished edge mirror size 300mm wide x 450mm high fixed with chrome plugged screws	number	3		
			3 mm thick Perspex signage for general information	m²	8		
		.26	190mm x 190mm x 3mm thick with number	number	12		
		.27	Custom made Aluminium Fly screen for	m²	6		
			opening smaller than 1m² including gauze				
			Custom made Aluminium Fly screen for opening greater than 1m² including gauze	m²	12		
			Aluminium framed pivot shower door natural anodised 850mm to 1150mm wide	number	4		
			Aluminium sliding shower door "TRI-SLIDER" with range of up to 1550mm wide x 1900mm high	number	2		
			Burglar Bars consisting of 16mm thick steel rods, burglar bar type BB2 or similar approved, welded into one window opening on site per frame	m²	12		
			Supply and install security gate for single door constructed of 25x25mm steel tubing frame and ledge with 16mm dia steel rod inserts at 70mm c/c incl. pin lock meganism.	number	6		
		.33	Powder coated key cabinet (480mm x 350mm x 60mm) with 105 key capacity	number	1		
		.34	Stainless Steel Disabled ironmongery:				
			.01 Disabled facility indicator boltset complete with vertical grab bar	number	1		
	Carried for	ward					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	rward				
		.02 Kick-plate 800x300x1,2mm Stainless Steel fixed to bottom of doors	number	1		
BD.02	2.019	.01 Items measured by linear metre:				
		.01 Silicone sealant in 6 mm contact joint between sanitary fittings and wall finishes	m	80		
		.02 Polyurethane sealant in 12 mm expansion joint in face brick walls	m	24		
		.03 Putty in patchwork to steel sashes	m	21		
BD.03		.02 Service of existing equipment and refix				
		.01 Hand dryer blowing unit	number	14		
		.02 Stainless steel sanitizers including replacement of cartridge and batteries	number	24		
		.03 Stainless steel air freshener including replacement of cartridge and batteries	number	8		
		.04 Stainless steel soap dispenser	number	19		
		.05 Aluminium sliding or pivot shower door	number	168		
		.07 Roll up garage door including servicing opening mechanisms, locks, etc	number	37		
		.08 Single Aluminium door and frame	number	6		
		.09 Aluminium sliding door and frame	number	12		
BD.02		.03 Supply, fit and remove existing:				
		.01 4 mm clear float glass to steel/aluminium frames including putty	m <sup>2</sup>	12		
		.02 4 mm obscure glass to steel/aluminium frames including putty	m²	18		
BD.03		.04 Clean existing surfaces:				
	(LI)	.01 Face bricks with calcium build-up and residue	m²	920		
	(LI)	.02 Tiles to walls and floors including cleaning and refilling of joints	m²	1650		
BE	2.020	Tiling and finishes, etc:				
BE.02		.01 Remove grime and clean concrete floors, ramps, stairs, tiles, etc, with approved solvent cleaner:				
	(LI)	.01 Floors, etc	m²	1980		
	Carried fo	ward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
3E.02		.02 Clean and remove stains and marks:				
	(LI)	.01 Carpet floor covering by steam cleaning or dry-powder cleaning	m²	36		
BE.01		.03 Items measured by area:				
		.01 40 mm x 40 mm x 4 mm thick Mosaic floor tiles on paper backing bedded in waterproofing 3:1 cement screed and flushing-up joints with waterproof white grout as approved by engineer	m²	8		
		.02 350 mm x 350 mm x 8mm Ceramic floor tiles as approved by engineer including removal of old, preparation, tile adhesive and waterproof grouting.	m²	21		
		.03 350 mm x 350 mm x 8mm Ceramic wall tiles as approved by engineer including removal of old, preparation, tile adhesive and waterproof grouting.	m²	29		
		.04 White glazed wall tiles 200 mm x 200mm x 6mm as approved by engineer including removal of old, preparation, tile adhesive and waterproof grouting.	m²	79		
BE.01	(LI)	.04 Regrout existing ceramic floor tiles with dove grey cement	m²	98		
BE.01		.05 Replace tiles: Supply and fit:				
		.01 White glazed wall tiles (150mm x 150mm) to painted or plastered walls	m²	18		
		.02 Ceramic wall tiles (200mm x 200mm) to painted or plastered walls colour as approved by engineer	m²	15		
		.03 Supply and fit (300 x 300 x2,5mm) semi flexible vinyl floor tiles fixed with approved adhesive	m²	12		
		.04 Regrout existing tiles	m²	180		
		.05 115 mm thick brick walls	m <sup>2</sup>	4		
		.06 230 mm thick brick walls	m <sup>2</sup>	12		
		.07 Extra over for Corobrick Corn Gold face brickwork with recessed vertical and horizontal joints in stretcher bond	m²	18		
		.08 Internal cement plaster to walls	m²	12		
	Carried fo					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.09 External cement plaster to walls	m²	18		
		.10 High tensile welded steel wire brick reinforcement 75 mm wide built horizontally into brickwork, including all laps, bending, cutting, notching, etc.	m	180		
		.11 High tensile welded steel wire brick reinforcement 150 mm wide built horizontally into brickwork, including all laps, bending, cutting, notching, etc.	m	120		
		.12 One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course in walls	m²	12		
		WATERPROOFING				
	2.021	"Derbigum" or similar approved torch-on bitumous membrane to all concrete flat roofs including 100mm turn-ups as per manufacturers specification.	m²	320		
		<u>FLOORS</u>				
	2.022	Skirtings:				
		.01 Items measured by linear metre:				
		.01 19 mm x 76 mm hardwood skirting with quadrant bead	m	12		
		.02 19 mm x 19 mm hardwood quadrant bead	m	8		
BJ.01	2.023	Paint to existing surfaces:				
		.01 Plaster surfaces:				
		.01 Interior quality acrylic emulsion paint with smooth sheen appeal.	m²	9110		
		.02 Exterior quality pure acrylic emulsion paint with Teflon.	m²	5360		
		.02 Fibre cement surfaces:				
		.01 Exterior quality super acrylic copolymer PVA paint:	m	1250		
		.02 Interior quality super acrylic copolymer PVA paint:	m²	7250		
		.03 Protective and decorative solvent based polyurethane alkyd semi- gloss non-drip enamel paint:	m²	205		
		.03 Steel surfaces:				
		.01 Super universal high gloss enamel paint.	m²	150		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.04 Wood surfaces:				
		.01 Super universal high gloss enamel	m²	750		
		.02 Protective and decorative solvent based polyurethane alkyd semi-gloss non-drip enamel paint	m²	126		
		.03 Water resistant polyurethane UV resistant wood preservative	m²	980		
		.04 Ultra violet light resistant exterior solvent based varnish	m²	1100		
BB.03		JOINERY				
		The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, gluing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic laminate of approved colour and pattern, glass, ironmongery, metalwork, etc				
BB.03	2.024	Cupboard, etc of 16mm low-pressure decorative board with self-edging including spring-loaded hinges, plastic pull handles, etc where applicable				
		.01 Replace single cupboard door, doors 580 x 750mm high.	number	1		
		.02 Replace double cupboard door, doors 1056 x 750mm high	number	1		
		.03 Replace double cupboard door, doors 1400 x 750mm high	number	1		
		.04 Replace double cupboard door, doors 1600 x 750mm high	number	1		
		.05 Replace cupboard plastic pull handles 130x23x15mm in oak finish	number	8		
		.06 Replace 900 x 1400mm Long worktop formed of 32mm thick stocklam, fixed to 50 x 50 x 5mm equal angle (angle measured elsewhere)	m	8		
	Carried fo	orward	l I			

REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
		MARRIED QUARTERS CUPBOARDS				
	2.025	The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, gluing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic laminate of approved colour and pattern, glass, ironmongery, metalwork, etc				
		.01 Replace sink cupboard complete 915mm high x 600mm deep x 1460mm long with bottom, back sides and one division, hinged double door approximately 1000 x 800mm high, single door approximately 500 x 800mm high with solid oak 25mm edges	number	2		
		.02 Replace sink cupboard complete 915mm high x 530mm deep x 2084mm long with bottom, back sides and one division, two hinged double doors approximately 1000 x 800mm high with solid oak 25mm edges	number	1		
		.03 Replace three hinged double doors 900 x 2450mm high with solid oak 25mm edges	number	1		
		.04 Replace two hinged double doors one average 1500mm high and the other 2100mm high with solid oak 25mm edges	number	2		
		.05 Replace three hinged double doors 1050 x 2450mm high with solid oak 25mm edges	number	2		
		.06 Replace two hinged double doors 1400 x 2450mm high with solid oak 25mm edges	number	2		
		.07 Replace single door 650 x 2000mm high with solid oak 25mm edges	number	2		
		.08 32mm Interior type particle board with 1.2mm decorative plastic laminate of approved colour and pattern on exposed faces and balancing oak veneer on both side as existing	m	4		
		.09 Replace floor mounted tall unit for brooms, hinged single door 550 x 2000mm high with balancing oak edging including hinges etc.	number	2		
		.10 Replace hinged double door 1000 x 800mm high with solid oak 25mm edges	number	2		
		.11 Replace cupboard drawers, 210mm high with solid oak 25mm edges	number	2		
		.12 Replace cupboard drawer 420mm high with solid oak 25mm edges	number	2		

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.13 Replace hinged door 1000 x 600mm high with solid oak 25mm edges	number	2		
		.14 Replace hinged single door approximately 500 x 600mm with solid oak 25mm edges	number	2		
		.15 Replace two hinged double doors 1000 x 800mm high with solid oak 25mm edges	number	6		
BB.03	2.026	Supply and fit crash resin moulded dado rails 70x18mm glued to walls	m	65		
	2.027	Supply and fit 42mm solid maranti framed and ledged batten stable doors 2032x813mm with rebated meeting stiles	number	12		
		PLUMBING AND DRAINAGE				
A.01	2.028	Remove, supply and installation of sanitary ware and brassware:				
		.01 Water closets:				
		.01 Replace broken or missing seat and covers (heavy duty DPE as per existing)	number	45		
		.02 Wash hand basins:				
		.01 Flexi rubber P-trap	number	14		
		.02 Chromium-plated bottle trap	number	5		
		.03 15 mm ø CP pillar taps SABS approved	number	14		
		.04 15 mm ø CP sink mixer	number	12		
		.05 15 mm ø CP paraplegic pillar elbow action tap	number	2		
		.03 Showers:				
		.01 15mm CP Shower rose with ball joint connector	number	6		
		.02 15 mm ø under tile stop-cocks SABS approved	number	4		
		.03 CP shower grating as per existing	number	4		
		.04 15mm CP shower arm with fascia plate and male iron connection - SABS approved	number	6		
		.04 Urinal	numb	_		
		.01 Chromium-plated bottle trap - similar to existing	number	4		
		.02 20 mm dia exposed flush valve SABS approved junior flush master complete with flush pipe	number	8		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.05 Baths				
		.01 20mm ø CP bath mixer with cascade hand shower and attachments	number	12		
A.02	2.029	Supply and installation of domestic water piping installation including removal of old:				
		.01 Water meter stations installed including strainer and two shut-off valves				
		.01 22 mm ø water meter	number	4		
		.02 50 mm ø water meter	number	2		
		.03 110 mm ø water meter	number	1		
		.02 Copper tubing Class 2 in walls and ducts				
		.01 15mm Ø Class 2 copper tubing	m	110		
		.02 22mm Ø Class 2 copper tubing	m	60		
		.03 28mm Ø Class 2 copper tubing	m	15		
		.04 Extra over for 15mm connex fittings	no	80		
		.05 Extra over for 22mm connex fittings	no	90		
		.06 Extra over for 28mm connex fittings	no	24		
A.04	2.030	Servicing and cleaning of sanitary ware:				
		.01 Water closets:				
		.01 Destaining of WC pan	number	286		
		.02 Service WC cistern flushing mechanism with repair kit	number	286		
		.02 Wash hand basins:				
		.01 Destaining of basin	number	300		
		.03 Urinal				
		.01 Destaining of Urinal	number	12		
		.02 Service flush valve	number	12		
		.04 Baths:				
		.01 Destaining of baths	number	36		
		.05 Showers:				
		.01 Clean shower trap and grating	number	222		
	Carried fo	rward	'			

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.06 Sink				
		.01 Destaining of sink	number	113		
		.07 Replace geyser components				
		.01 20 mm ø pressure-reducing valve, including two gate vales and non-return valve set at 400 kPa	number	19		
		.02 Brass vacuum breaker	number	19		
		.03 Safety valve	number	19		
		.08 15 mm ø CP ball-o-stop valve with CP flexi tail pipe	number	24		
A.05	2.031	Servicing, overhauling and cleaning of brassware:				
		.01 Replace washers on brassware with washer kits:				
		.01 15 mm ø CP pillar taps	number	228		
		.02 20 mm ø CP pillar taps	number	64		
		.03 15 mm ø CP wall-mounted taps	number	24		
		.04 20 mm ø CP wall-mounted taps	number	144		
		.05 20 mm ø brass hose bib taps	number	24		
		.06 15 mm CP sink mixers	number	110		
		.07 15mm under wall tap	number	122		
		.08 15 mm ø shut-off gate valve	number	40		
		.09 20 mm ø shut-off gate valve	number	20		
		.10 32 mm ø shut-off gate valve	number	6		
		.11 50 mm ø shut-off gate valve	number	4		
A.06	2.032	Servicing of water, drainage and pipe installations:				
		.01 Servicing of brassware, including gaskets, gland packings, seals, and handles:				
		.01 20 mm ø stop-cocks	number	24		
		.02 Servicing and cleaning of drainage installations:				
	(LI)	.01 Unblock and clean pipe work including fittings, 50 mm ø pipe	m	90		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
	(LI)	.03 Unblock and clean P- & bottle-traps	number	34		
	(LI)	.04 Unblock and clean gullies	number	16		
		.05 Replace damaged gully with pre-cast concrete gully	number	4		
		.06 Replace missing or broken gully gratings	number	3		
A.03	2.033	Supply and installation of domestic geyser installations including shut-off valves, strainers, drip tray, non-return valves, expansion relief valve, safety valve, drain piping and electrical connection as per existing by approved installer:				
		.01 Domestic geyser (similar to existing), 150litre, 3 kW	number	4		
A.03	2.034	Supply and installation of domestic solar geyser installations close coupled thermosiphon system with pitch roof support including shut-off valves, solar mixing valve, non return valves, anode, washers, gylcol, relief valve, safety valve, drain piping and electrical connection:				
		.01 Solar system indirect (200lt) Close Coupled thermosiphon system with roof support (or similar approved)	number	6		
		.02 Solar system indirect (187lt) Close Coupled thermosiphon system with roof support (or similar approved)	number	2		
A.07	2.035	Servicing and cleaning of domestic geysers:				
		.01 150 litre electric geyser	number	6		
A.07	2.036	Servicing and cleaning of domestic solar geysers as per specification SA and manufacturers specification by approved service provider:				
		.01 150 to 250 litre solar geyser	number	217		
		.02 Solar system indirect close coupled (or similar approved)				
		.01 Thermostat	number	196		
		.02 2kw Element	number	84		
		.03 3kw Element	number	24		
		.04 Female TP Safety Valve	number	8		
		.05 Male TP Safety Valve	number	24		
		.06 Vacuum Breaker	number	25		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.07 Expansion Bottle pump (5litre)	number	2		
		.08 Expansion Bottle pump (8litre)	number	4		
		.09 Brass DC Circulator Pump	number	2		
		.10 Photo Voltaic Solar Module 10Watt	number	6		
		.11 Photo Voltaic Solar Module 20Watt	number	12		
		.12 Insulation	number	24		
		ELECTRICAL INSTALLATIONS				
L.01	2.037	Service distribution boards, including replacement of defective breakers, earth leakage units, surge arrestors, etc.	number	248		
L03.02	2.038	Replace distribution board:				
		.01 Faceplate for D.B (+/- 600 x 600mm)	number	1		
		.02 Surface mounted D.B 12 way with lockable doors	number	1		
L.19	2.039	Electrical Tests				
		.01 Insulation resistance	site	3		
		.02 Phase Voltage	site	3		
		.03 Current per Phase	site	3		
		.04 Illumination levels in lux	site	3		
L.05	2.040	Supply and installation of isolators (SABS approved)				
		.01 20-40A, 6kA double pole	number	4		
		.02 60A, 6kA double pole	number	2		
		.03 60A, 6kA triple pole	number	2		
		.04 80A, 6kA triple pole	number	2		
L.04	2.041	Supply and installation of circuit breakers (SANS approved)				
		.01 10-40A, 6kA single pole	number	4		
		.02 40-60A, 6kA single pole	number	2		
		.03 10-40A, 6kA double pole	number	2		
		.04 10-40A, 6kA triple pole	number	2		
		.05 40-80A, 6kA triple pole	number	2		
		.06 80-100A, 6kA triple pole	number	2		
	Carried fo					

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.07 80-100A 15kA triple pole	number	2		
		.08 100-160A 15kA triple pole	number	2		
08	2.042	Supply and install surge arrestors				
		.01 1 Pole and Neutral 275V 5kA with Indication	number	4		
		.02 3 Pole and Neutral 275V 5kA with Indication	number	6		
11	2.043	Replace luminaire				
		.01 Double 36W 2ft Fluorescent	number	12		
		.02 Fluorescent Circular 40W Coolwhite	number	18		
		.03 Double 4ft Fluorescent	number	14		
		.04 Bulkhead - Round Outdoor IP65 - 12W	number	8		
		.05 Type J (Beka Series 30-Black, 31218)	number	12		
		.06 Type C (Beka Series 70-White, 71126)	number	22		
		.07 Trap	number	8		
		.08 Type A (Beka Series 40-White, 41126)	number	21		
		.09 Type B (Beka Series 40-White, 42126)	number	24		
		.10 Single 4ft Fluorescent	number	8		
		.11 Type P (Beka Roughguard 2x36W/ PV/ Tps Complete)	number	4		
		.12 Triple 36W 2ft Fluorescent	number	12		
09	2.044	Re-lamp luminaire				
		.01 Double 36W 2ft Fluorescent	number	136		
		.02 Fluorescent Circular 40W Coolwhite	number	117		
		.03 Double 4ft Fluorescent	number	216		
		.04 Bulkhead - Round Outdoor IP65 - 12W	number	79		
		.05 Type J (Beka Series 30-Black, 31218)	number	167		
		.06 Type C (Beka Series 70-White, 71126)	number	753		
		.07 Trap	number	60		
		.08 Type A (Beka Series 40-White, 41126)	number	209		
		.09 Type B (Beka Series 40-White, 42126)	number	184		
		.10 Single 4ft Fluorescent	number	33		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.11 Type P (Beka Roughguard 2x36W/ PV/ Tps Complete)	number	12		
		.12 Triple 36W 2ft Fluorescent	number	174		
L.10	2.045	Service luminaire				
		.01 Double 36W 2ft Fluorescent	number	68		
		.02 Fluorescent Circular 40W Coolwhite	number	117		
		.03 Double 4ft Fluorescent	number	108		
		.04 Bulkhead - Round Outdoor IP65 - 12W	number	79		
		.05 Type J (Beka Series 30-Black, 31218)	number	167		
		.06 Type C (Beka Series 70-White, 71126)	number	753		
		.07 Trap	number	60		
		.08 Type A (Beka Series 40-White, 41126)	number	209		
		.09 Type B (Beka Series 40-White, 42126)	number	184		
		.10 Single 4ft Fluorescent	number	33		
		.11 Type P (Beka Roughguard 2x36W/ PV/ Tps Complete)	number	12		
		.12 Triple 36W 2ft Fluorescent	number	58		
L.12	2.046	Service light switch (1 & 2 lever, dimmer and watertight)	number	1337		
L.13	2.047	Replace light switch				
		.01 16A, one lever, one way Crabtree	number	4		
		.02 16A, two lever, one way Crabtree	number	6		
		.03 16A, one lever, two way Crabtree	number	2		
		.04 16A water tight, robust	number	2		
L.16	2.048	Replace Photo-electric switch				
		.01 National or equal 16A unit with bracket and mounted in dummy bulkhead fitting	number	6		
		POWER OUTLETS				
L.15	2.049	Replace socket outlet				
		.01 16A, single SSO Crabtree	number	6		
		.02 16A, single SSO industrial	number	4		
	Carried fo	I prward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
		.03 16A, double SSO Crabtree	number	12		
		.04 16A, single SSO power skirting mounted	number	8		
		.05 16A, dedicated SSO power skirting mounted	number	4		
L.05	2.050	Replace isolators				
		.01 30A, 2 pole	number	6		
		.02 30A 2 pole with cord grip	number	12		
		.03 30A 2 pole in ABB York box S15	number	4		
		.04 60A 2pole	number	2		
L.14	2.051	Service socket outlet (single or double)	number	1921		
L.14	2.052	Service dedicated and UPS socket outlets (red and blue)	number	354		
	2.053	Service Isolators (air-cons, geysers and stoves)	number	269		
	2.054	Service and check photocell	number	24		
L.18	2.055	Geyser components				
		.01 Domestic geyser element	number	12		
		.02 Geyser thermostat	number	12		
L. <b>17</b>	2.056	Domestic stove components				
		.01 150 - 160 dia solid plate	number	24		
		.02 170 - 190 dia solid plate	number	24		
		.03 Five/six heat switch indicator	number	48		
	2.057	Supply, install and remove existing domestic sunken stainless steel two plate stove similar to existing or as approved	number	24		
		LOW VOLTAGE CABLE INSTALLATIONS				
L.02	2.058	Replace cabling				
		0.1 16 mm² x 3-core PVC/SWA/PVC Cu	m	120		
		.02 10 mm² x 3-core PVC/SWA/PVC Cu	m	120		
		.03 6 mm² x 3-core PVC/SWA/PVC Cu	m	130		
L.02	2.059	Termination of low voltage cable				
		.01 16 mm² x 3-core PVC/SWA/PVC Cu	number	8		
	Comin d f	anuard .				
	Carried fo	nwaru				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.02 10 mm² x 3-core PVC/SWA/PVC Cu	number	8		
		.03 6 mm² x 3-core PVC/SWA/PVC Cu	number	12		
L.02	2.060	Jointing of cables				
		.01 16 mm² x 3-core PVC/SWA/PVC Cu	number	2		
		.02 10 mm² x 3-core PVC/SWA/PVC Cu	number	2		
		.03 6 mm² x 3-core PVC/SWA/PVC Cu	number	2		
		WIRING				
L.03	2.061	Replace wiring :				
		.01 2,5 mm² PVC insulated	meter	180		
		.02 4 mm² PVC insulated	meter	80		
		.03 6 mm² PVC insulated	meter	50		
		.04 10 mm² PVC insulated	meter	50		
		.05 2,5 mm² BCEW	meter	50		
		.06 4 mm² BCEW	meter	50		
		.07 6mm² BCEW	meter	50		
L.19	2.062	Testing of lightning earthing per building by a specialist contractor	number	68		
		EARTHING AND BONDING				
L.19	2.063	Provide earthing and bonding in all ablution rooms, laundries and kitchens	number	12		
		INSECT ELECTROCUTORS				
	2.064	Supply and install insect electrocutors (outdoor) 620mm x 130mm x 48mm with 2 x 20W tubes including heavy duty galvanised steel bracket mounted to existing pole or wall (similar approved)	number	8		
		FENCING, REFUSE REMOVAL AND PEST CONTROL				
CC.01	2.065 (LI)	Clearing of growth along fence route	m	3190		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
CC.04	2.066	Redress, service, tensioning and tightening of fence:				
		.01 Diamond mesh or Welded Mesh fence:				
		.01 3.0m diamond mesh or welded mesh	m	2610		
		.02 1.8m diamond mesh or welded mesh	m	290		
		.02 Secure, tighten nuts and install missing bolts and nuts for heavy duty concrete palisade fence including replacement of broken concrete slats:				
		.01 2.4m high, 10 Pole at 2.0m h/h with 450mm overhang	m	1153		
CC.02	2.067	Supply and erection of fencing material to replace damaged sections: (All members to be hot dipped galvanised)				
		.01 Diamond chain link fence:				
		.01 3000mm diamond chain link fence	m	60		
		.02 1800mm diamond chain link fence	m	30		
		.02 Heavy duty concrete palisade fence:				
		.01 2.4m high, 10 pole at 2.0m h/h with 450mm overhang, fully installed	m	6		
		.03 Security Posts 100mm Ø (capped & founded in concrete incl Y-piece) for:				
		.01 3000m security fence: Galvanised tubular security post and stays 3600mm with 6mm Ø holes	number	15		
		.02 Posts 2400mm x 100 x 2mm fully galvanised including concrete	number	9		
		.04 Stays, corner and intermediate posts 100mm Ø(founded in concrete) for fence				
		.01 Galvanised tubular	number	10		
		.02 Stays for 2400mm fence	number	8		
		.03 Extra over for hard rock excavations	m³	12		
		.05 Straining wire	m	320		
		.06 BTC: 450mm dia	m	60		
		.07 Flat wrap: 500mm	m	60		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.08 Barbed wire on overhang	m	80		
		.09 New Pedestrian (Single) Gates for:				
		.01 1.8m fence with 450mm additional overhang at 45°	number	6		
		.10 New Vehicle (Double) Gates for:				
		.01 1.8m fence with 450mm additional overhang at 45°	number	2		
		.02 3m fence with 450mm additional overhang at 45°	number	1		
CG.02	2.068	SUPPLY OF WASTE WHEELY BINS				
		.01 All Areas (240 litre waste bin including wheels)	number	8		
	2.069	PEST CONTROL				
CG.03	2.070	Pest Control Plan for Alexander Bay Port of Entry	number	1		
CG.03	2.071	Pest Control Plan for Vioolsdrift Port of Entry	number	1		
CG.03	2.072	Pest Control Plan for Onseepkans Port of Entry	number	1		
CG.04	2.073	Alexander Bay Port of Entry Pest, termite and rodent control (internal)	number	1		
CG.05	2.074	Alexander Bay Port of Entry Pest, termite control (external)	number	1		
CG.05	2.075	Alexander Bay Port of Entry rodent control bait station stations including poison	number	24		
CG.04	2.076	Vioolsdrift Port of Entry Pest, termite and rodent control (internal)	number	1		
CG.05	2.077	Vioolsdrift Port of Entry Pest, termite control (external)	number	1		
CG.05	2.078	Vioolsdrift Port of Entry rodent control bait station stations including poison	number	52		
CG.04	2.079	Onseepkans Port of Entry Pest, termite and rodent control (internal)	number	1		
CG.05	2.080	Onseepkans Port of Entry Pest, termite control (external)	number	1		
CG.05	2.081	Onseepkans Port of Entry rodent control bait station stations including poison	number	42		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
CE.01		WATER DISTRIBUTION NETWORKS				
		Water distribution pipelines				
CE.02	2.082	Replacement of manhole covers:				
		.01 Precast reinforced concrete cover slabs complete with CI manhole frame and cover to SABS 558 Type 4 grout for water tightness. Maximum dimension 301 mm to 700 mm. Demolish existing concrete manhole cover slabs complete.	number	2		
		.02 CI manhole covers: covers only				
		.01 Maximum dimension: 600mm	number	2		
		.03 CI manhole covers: covers and frames				
		.01 Maximum dimension: 600mm	number	2		
CE.01	2.083	Bulk water meter	number	2		
CE.02	2.084	Manholes				
		.01 Manholes and inspection chambers				
		.01 New pre-cast concrete manhole up to 1.2m deep, including pre-cast cover and frame	number	1		
CE.02	2.085	Replacement of damaged manhole covers:				
		.01 CI manhole covers: covers and grids				
		.01 Dimension: 600mm to 900mm	number	2		
		.02 Maximum dimension over 900mm	number	2		
CE.03	2.086	Cleaning of pipeline				
		.01 Scouring of pipeline	m	820		
CE.04	2.087	Servicing of valves (bulk water)	number	4		
CE.05	2.088	Reconditioning of Valves installation and recommission	number	4		
CE.06	2.089	Cleaning of manholes, chambers and other structures	number	32		
CE.07	(LI) 2.090	WATER RESERVOIRS:				
		.01 Sterilization of storage tank	number	9		
	(LI)	.02 Clean area around storage tanks (30m x 30m) of vegetation and growth	number	6		
		.03 Lightning protection for storage tank	number	8		
	Carried fo	rward	1			

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.04 Resealing of reservoir	-	PC	sum	150 000
		.05 Charge required by Contractor on sub item .04 above	%	150 000	%	
CF.01	2.091	Mechanical Cleaning of sewer pipes and structures by means of water laser jet cleaning	m	1010		
CE.05	2.092	Servicing of hand wheel RSV				
		.01 Ø 110mm to Ø 250mm Class 16 Isolating Valve	number	2		
EB.03	2.093	Service Motor Control Centres	number	3		
EF.02	2.094	Removal, supply, delivery and replacement of drying bed filter media	m³	60		
SB.01	2.095	Compile and supply a complete set of operating and Maintenance Manuals for all installations specified:				
		.01 Water Treatment Works	number	2		
		.02 Wastewater Treatment Works	number	1		
SB	2.096	Water Treatment Plant				
		.01 Full service of water treatment plant as per manufacturers specification, O&M manuals, etc. Servicing to be performed by specialist contractor	number	3		
		.02 Ensure continuous manual and automatic operation of plant and associated equipment	number	36		
FN.01 to FN.03	2.097	Decommissioning and removal, servicing, installation, testing and commissioning of raw water pump and filter pumps				
		.01 5,5kW 3.5m³/h Pressure Pump	number	4		
		.02 Mono 7,5kw motor Water Purification Pump	number	2		
		.03 Mono 5,5kw motor Water Purification Pump	number	2		
		.04 Mono 5,5kw motor Fire Water Pump	number	2		
		.05 1,1kw Filter Pumps	number	2		
		.06 2120BB Filtration Pump	number	2		
		.07 flocculent dosing pump	number	2		
		.08 pH correction dosing pump	number	2		
		.09 De-sludging pump	number	2		
	Carried fo	I rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.10 Product feed pump	number	2		
		.11 Sand filtration units inclusive of filter pumps, incl: "923x2107mm round 400kPA fibre glass pressure vessels"	number	2		
		.12 Pressure pump 0.7kW motor 20-90 l/sec Fire Pressure pump	number	6		
N.04	2.098	Service Motor Control Centres	number	6		
	2.099	Replace Float-level switches	number	8		
	2.100	Replace filter media to 923x2107mm round 400kPA fibre glass pressure vessels as per manufacturers specifications				
		.01 Climabrite sand	kg	2000		
		.02 Activated carbon media	kg	400		
		.03 Birm metal removal	kg	600		
		.04 Anthracite coal	kg	600		
CK.01	2.101	Supply of potable drinking water to Port of Entry from commercial sources including transport				
		.01 Alexander Bay Port of Entry	kilolitre	120		
		.02 Vioolsdrift Port of Entry	kilolitre	280		
		.03 Onseepkans Port of Entry	kilolitre	400		
		SEWER NETWORK				
CF.01	2.102	Sewerage Network Pipelines				
CF.01.01		.01 Repair / Replace existing pipelines (pipe <i>material</i> measured below)				
		.01 Sewerage pipes	m	32		
SANS 1200 DB	2.103	Excavation				
		.01 Hard rock excavation	m³	24		
CF.01.02	2.104	Provision of materials for repair:				
		.01 uPVC 400kPa structured wall pipe to SABS 1601, type I with smooth inner and outer wall				
		.01 110 mm ø uPVC pipe and sockets	m	82		
		.02 uPVC soil and waste pipe fittings				
		.01 110 mm ø plain bend	number	12		

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.02 110 x 110mm x 45°	number	12		
		.03 Cleaning eyes:				
		.01 110 mm ø inline cleaning eye, constructed complete with ABC, CI cover and frame and concrete encasement	number	2		
CF.01.03	2.105	Replacement of manhole covers, grid inlets and the like:				
		.01 SANS 558 Type 4 - covers only:				
		.01 550mm dia	number	2		
		.02 SANS 558 Type 8B - frames only:				
		.01 Dimension of 600mm x 600mm	number	2		
		.03 SANS 558 Type 8A - covers only:				
		.01 Dimension of 450mm x 600mm	number	2		
		.04 SANS 558 Type 8A - frames only:				
		.01 Dimension of 450mm x 600mm	number	2		
CF.01.04.04	2.106	Repair work to damaged manholes including channels and benching:				
		.01 Existing manholes	number	2		
	2.107	SHREDDER PUMP SYSTEM				
		.01 Allow the sum of R 550,000.00 for the replacement and/or service of shredder pump systems including commissioning and operator training.	-	PC	PC sum	550 000
		.02 Attendance and profit	%	550 000	%	
		SEPTIC TANKS				
EG 01	2.108	Cleaning out, inspect and repair septic tanks				
		.01 Cleaning out septic tanks and dispose of contents off-site	number	12		
SANS 10400	2.109	French drains according to SANS 10400 - PP10				
		.01 Soak test as per DPW standard detail	number	1		
		.02 Construction of new French drain as per drawing, with dimensions of 25m long x 1,5m deep and 1,2m wide.	number	2		
		.03 Perforated 110mm PVC pipe	m	60		
	Carried fo	orward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		.04 Geo fabric, knittex 80 or similar approved. Colour to be approved by Engineer:	m²	124		
		.05 Stone 19mm for soak away	m³	12		
	2.110	Excavation in pickable soil for the placing of new septic tanks.	m³	24		
	(LI) 2.111	Supply and install prefabricated septic tank complete (5400 litre capacity - Calcamite or similar approved type)	number	1		
	2.112	Construct cast in situ concrete manhole complete with cover and frame for prefabricated septic tanks	number	1		
EG.01	2.113	Removal and disposal of septic tank contents as well as demolition, backfill and compaction of existing tanks	number	1		
		HUBER ROTAMAT MICRO STRAINER (Ro9 300x6)				
		All works to be executed by manufacturers approved service provider to manufacturers specification				
	2.114	Mechanical Screen: supply and fit:				
		.01 Replace basket to unit incl sealing, complete	number	1		
		.02 Replace brushes including stripping	number	2		
		.03 Spiral R 121	number	5		
		.04 Holding Plate 55/25/3	number	30		
		.05 Electrical drive motor 1,1kW 13.0 U400/50 800Nm incl sealing	number	1		
	2.115	Grit Classifier Rosf 3E				
		.01 Electrical drive motor BF40, 1,1kW 11.5 U400/50 910Nm incl sealing	number	1		
		.02 Wear ring to grit 105/60x98	number	1		
		.03 Pin 80/59x97 to grit classifier	number	1		
		TELEMETRY				
	2.116	.01 Provide the sum of R 95,000.00 for the repair and/or servicing and commissioning of the existing Tele-Flex Telemetry equipment	-	PC	PC sum	95 000
		.02 Attendance and profit	%	95 000	%	
	2.117	Supply and install 12V, 40A per hour rechargeable sealed Lead Acid batteries incl 7A charger	number	2		
	Carried fo	) prward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
	2.118	Erection and commissioning of high mast lighting protection system 20m, hot dipped galvanised mast with stress fit joints, complete. All test reports and certificates of compliance to be produced	number	2		
		WATER PURIFICATION PLANT				
	2.119	Service and repair Endress & Hauser electromagnetic flow meter as per specification from supplier	number	6		
	2.120	Replace electronic shut off float valves with 5m floater including liquid level controller	number	2		
		ROADS AND STORMWATER				
CA.02		SURFACE REPAIRS OF CONCRETE PAVEMENTS				
CA.02.02	2.121	Patching of concrete:				
COLTO 71.02		.01 Sealed transverse joints:				
		.01 Joint filler (closed-cell polyethylene)	m	68		
		.02 Silicone sealant (grey)	m	120		
COLTO 71.08		.02 Steel reinforcement in concrete pavement:				
		.01 Welded steel fabric (ref. 245)	kg	44		
CA.02.01	2.122	Preparation and resealing of joints in existing concrete pavements				
		.01 Expansion or construction joints	m	24		
CA.02.02	2.123	Patching of concrete:				
		.01 25 MPa concrete of thickness 125 mm up to 150 mm	m²	54		
CA.03	2.124	REPAIR OF SEGMENTED PAVING				
CA.03.01		.01 Excavation for repair of segmented paving (paving blocks and bedding sand only, max 120mm depth)	m³	46		
		.02 Cast <i>in situ</i> concrete and formwork in edge beams, intermediate beams and kerbing:				
		.01 Class 25 concrete	m³	54		
		.03 Concrete block paving:				
		.01 Supply and installation of 35MPa 80mm approved interlocking paving compliant with SANS 1058 for public areas (including 20mm river sand bedding material)	m²	120		
CA.03.02	(LI)	.04 Replacement of jointing sand	m³	3200		
	Carried fo	l la				

CA.03.01 CA.03.02	2.125 (LI) (LI)	Breaking up and removing concrete edge beams, intermediate beams, etc.										
	(LI) (LI)				Brought forward							
	(LI)											
		.01 Concrete walkways	m <sup>3</sup>	12								
	0.400	.02 Concrete edge beams and intermediate beams	m <sup>3</sup>	14								
CA.03.02	2.126	Corrective maintenance of segmented concrete block paving	m²	600								
	2.127	Replacement of jointing sand	m²	5800								
	(LI) 2.128	Install galvanised high impact 4mm steel round domed speed bump chemically plugged to surface	number	68								
		CONCRETE KERBING										
	2.129	Replacing of concrete kerbing:										
		.01 Cast in situ kerbing or edge restraint of maximum depth 200 mm and maximum width 500 mm:										
		.01 Radius up to 20 m	m	12								
		.02 Radius over 20 m and straight sections	m	24								
		.02 Precast kerbing - SANS 927 figure 7:										
		.01 Radius over 4 m up to 20 m	m	12								
		.02 Radius over 20 m and straight sections	m	20								
	2.130	Port of Entry Signage										
		.01 Replace Port of Entry signage with 5-year print vinyl and 5-year clear laminate vinyl 3000x2000mm secured on a 50x50x3mm square tubing frame (3 name boards)	-	PC	sum	32 000						
		.02 Attendance and profit on item .01 above	%	32 000	%							
		STORMWATER DRAINAGE										
CB.01		Prefabricated culvert and pipe installation and repair of existing culverts, pipes and structures										
CB.01.03	2.131	Prefabricated culverts:										
		.01 On Class B bedding Class 100D pipe:										
		.01 450 mm diameter	m	12								
CA.04.01	2.132	Re-instatement of road sign boards										
		.01 Area not exceeding 2 m²	m²	4								
- 1	Carried fo	l rward										

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
CA.04.02	2.133	Road sign supports				
		.01 Steel tubing (dia 76 mm and 3 mm wall thickness)	m	8		
CA.05	2.134	Retro-reflective road-marking paint:				
		.01 Longitudinal lines:				
		.01 100 mm to 150mm wide broken or unbroken lines, white, yellow or red	m	1200		
		.02 Transverse lines and other markings:				
		.01 Lettering and symbols, white or yellow markings	m²	445		
		.02 Traffic island markings, white or yellow existing markings	m²	980		
CA.06	2.135	Chemical control of vegetation:				
	(LI)	.01 300 mm wide strip	km	15		
	(LI)	.02 Area covered by interlocking blocks	m²	11000		
CB.01.01	2.136	Cleaning of prefabricated culverts and inlet structures				
	(LI)	.01 Prefabricated concrete pipes and portal culverts:				
		.01 Up to and including 500 mm	m	41		
CB.02.01	2.137	Cleaning of concrete drainage channels				
	(LI)	.01 Concrete drainage channels and side drains	m	26		
		EXTERNAL ELECTRICAL				
HE 08.06(a)	2.138	Excavate in pickable soil for trenches, backfill, compact and dispose of surplus material	m³	24		
HE 08.06(d)	(LI) 2.139 (LI)	Extra over item HE 09.06(a) for using backfill material obtained from sources provided by the Contractor	m³	12		
HE 08.06(e)	2.140	Supply and install uPVC sleeves				
		.01 110mm diameter	m	24		
		.02 75mm diameter	m	12		
HE 08.06(z)	2.141	Replace Luminaire diffuser				
		.01 250W HPS Floodlight	number	4		
		.02 250W HPSE Streetlight	number	4		
		.03 Beka Ray Post Top diffuser	number	5		

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
HE 09.03(f)	2.142	Replace luminaire				
		.01 400W HPS Floodlight	number	4		
		.02 250W HPSE Streetlight	number	4		
		.03 80W MV Post Top	number	9		
HE.01	2.143	Re-lamp luminaire:				
		.01 400W HPS Floodlight	number	18		
		.02 250W HPSE Streetlight	number	29		
		.03 80W MV Post Top	number	9		
HE.02	2.144	Service luminaire				
		.01 400W HPS Floodlight	number	18		
		.02 250W HPSE Streetlight	number	29		
		.03 80W MV Post Top	number	9		
HE 09.03(g)	2.145	Replace area light pole				
		.01 7 Meter wooden pole area light	number	2		
HE 08.06(ac)	2.146	Junction boxes Including pole mount brackets				
		.01 Junction boxes type U2	number	4		
		.02 Junction boxes IP65 (Enclosure) 1.5mm thick 3CR12 stainless steel, 250mm high x 175mm wide x 75mm deep complete with cable entry gland plates, mounting plates and pole mounting kit similar or equal to	number	2		
HC.02	2.147	Mega Enclosures  Service high mast area light posts	number	13		
HC.03	2.148	Supply and installation of domestic electricity meter	number	12		
	2.149	Service, repair, test and commissioning of electric boom gates	number	4		
		DISTRIBUTION KIOSKS				
HC.01	2.150	Service Distribution kiosk	number	12		
	2.151	Remove rust and paint kiosk	number	12		
	2.152	Label kiosks	number	12		
	2.153	Supply and install padlocks	number	12		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
	2.154	Replace distribution kiosk (6 way complete)	number	1		
		TRAFFIC BARRIERS (boom arm constructed of aluminium tubing powder coated in white with red reflective tape and boom break away system)				
	2.155	Electrical semi automatic operated traffic barrier with stainless steel (6mm 3CR12) boom cabinet with infrared protection beam and 60W 220V AC 50Hz motor gear box:				
		.01 4.5 meter	number	1		
	2.156	Service of mechanical tyre-spike boom barriers				
		.01 4.5 meter	number	2		
	2.157	TRANSFORMER				
		.01 Allow the sum of R 520,000.00 for the replacement of electrical transformers	-	PC	PC sum	520 000.00
		.02 Attendance and profit	%	520 000	%	
		STANDBY POWER GENERATORS				
HB.01	2.158	Clean generator plant room	number	7		
HB.02	(LI) 2.159	Service 365 kVA complete genset (motor and alternator) by suitably registered service agent (Vioolsdrift)	number	1		
HB.02	2.160	Service 15 kVA complete genset (motor and alternator) by suitably registered service agent (Vioolsdrift)	number	4		
HB.02	2.161	Service 75 kVA complete genset (motor and alternator) by suitably registered service agent (Alexander Bay)	number	1		
HB.02	2.162	Service 85 kVA complete genset (motor and alternator) by suitably registered service agent (Onseepkans)	number	1		
HB.05	2.163	Service change-over switchgear & controls	number	7		
	2.164	Locking mechanism, including lock, for generator batteries in order to prevent theft	number	7		
	2.165	Diesel meter installed with associated pipe work connected to bulk diesel supply tank and standby generator (including shut-off valve and flow control valve in day-tank)	number	2		
	2.166	Supply and install water jacket heater	number	1		
SB.01	2.167	Compile and supply a complete set of operating and				
		.01 Generators Vioolsdrift	number	5		
	Carried fo	l prward			1	

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
		.02 Generator Alexander Bay	number	1		
		.03 Generator Onseepkans	number	1		
	2.168	Replace 12V sealed lead acid batteries for standby power generator	number	4		
	2.169	Supply and install 2200l diesel bulk tank including stand, flow meter, oil/water separator and air-vent connected to generator day tank	number	1		
	2.170	Replacement of Donaldson breather units similar as existing	number	1		
	2.171	Supply and replace galvanised pressed steel transformer room doors and frame 1524x2134mm including 902x746mm louvers, complete	number	1		
	2.172	Execute dummy load test	number	7		
		AIR-CONDITIONING UNITS				
D.01	2.173	Service air-conditioning units as per FD 03.06				
		.01 Full service of air conditioning units for first year	number	266		
		.02 Full service of water cooler units for first year	number	35		
FD.02	2.174	Replace air-conditioning unit temperature controller (remote)	number	12		
FD.03	2.175	Replace air-conditioning unit remote batteries at start of contract AA and AAA	sets	266		
FD.03	2.176	Service existing fans and motors	number	178		
	2.177	REGAS AC UNIT	number	12		
	2.178	Supply and Install Invertor AC UNIT (capable of heating and cooling)				
		.01 >36000 btu high wall split unit	number	1		
		.02 >18000 btu high wall split unit	number	1		
		.03 >12000 btu high wall split unit	number	6		
		.04 >48000 btu high wall split unit	number	1		
	2.179	Supply and Install Air-curtain				
		.01 1,500 mm with max of 3m air throw, air volume > 3,000 m³/h and air speed > 630 m/min.	number	1		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	prward				
	2.180	Supply and install inverter AC unit capable of heating and cooling as per specification including cutting and fitment to ceiling.				
		.01 18000 btu cassette ceiling unit	number	2		
		EVAPORATOR COOLERS				
	2.181	Replace10550m3/h Evaporative Cooler, axial fan driven complete as existing by manufacturers approved installer				
		.01 Supply and install complete unit including roof connecting ducting as existing	number	5		
	2.182	Flexible, round insulated ducting. Supply and install				
		.01 Ø460mm	m	100		
		.02 Ø308mm	m	40		
	2.183	Supply and install 850x526mm Chillcell filter pads sets as per manufacturers specification	set	105		
	2.184	Supply and install 360mm x 360mm uPVC adjustable outlet ceiling louver including fitting and cutting of ceiling board complete	number	12		
	2.185	Replace large pad frame beige cabinets - made from Permatuf corrosion-proofstructural polymer material as existing	set	4		
	2.186	Replace water pump, with an encapsulated motor including overload cut-out, stainless steel shaft and bearings, as per existing	number	5		
	2.187	Replace 950W electrical motor, fully enclosed with aluminium casing	number	2		
	2.188	Supply and replace high efficient axial fan complete, purpose designed and inherently balanced for existing evaporative systems	number	4		
		FANS				
	2.189	Replace 102m³/h wall mounted fans complete with aluminium Louvre as existing	number	24		
	2.190	Replace 175m³/h wall mounted fans with Louvre as existing, complete with temperature control unit.	number	8		
	2.191	Replace 600mm x 400mm wall mounted aluminium powder coated UV resistant gravity Louvre plugged to brickwork	number	2		
	2.192	Supply and replace 4200m³/h wall mounted fan complete with "Stop/Start" unit as existing	number	2		
	Carried fo	rward				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
		FIRE FIGHTING EQUIPMENT				
JC.04	2.193	Servicing, cleaning, recharging and maintenance of fire extinguishers	number	288		
JC.01	2.194	9 kg Dry chemical powder (STP) fire extinguisher	number	12		
	2.195	Carbon dioxide (CO <sub>2</sub> ) fire extinguisher	number	4		
	2.196	Lockable, metal cabinet for fire extinguisher	number	12		
	2.197	Replace fire cupboard lockset	number	8		
	2.198	Replace fire cupboard keys	number	8		
	2.199	Replace safety glass on metal cabinet	number	8		
JC.03	2.200	Servicing, cleaning and maintenance of fire hose reels	number	4		
JC.02	2.201	Servicing, cleaning and maintenance of fire hydrants	number	9		
JC.06	2.202	Fire fighting training as per specification SD at Alexander Bay Port of Entry	number	1		
JC.06	2.203	Fire fighting training as per specification SD at Vioolsdrift Port of Entry	number	1		
JC.06	2.204	Fire fighting training as per specification SD at Onseepkans Port of Entry	number	1		
JC.05	2.205	Compilation of fire plan for each of the service buildings at Alexander Bay Port of Entry	site	1		
JC.05	2.206	Compilation of fire plan for each of the service buildings at Vioolsdrift Port of Entry	site	1		
JC.05	2.207	Compilation of fire plan for each of the service buildings at Onseepkans Port of Entry	site	1		
JC.03.02	2.208	Supply and installation of fire hose reels:				
		.01 Fire hose reel with 30 m hose	number	1		
		.02 25mm Fire stop cock, CP - Cobra code 235	number	1		
		.03 Hose reel-and-valve tap covers " EXTINGUIMATE"	number	1		
		.04 Shut-off valve	number	1		
		.05 Symbolic fire signage 290 x 290mm	number	42		
		.06 Aluminium hose reel nozzle	number	4		
	Comic d f-	payord				
	Carried fo	riwaru				

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought fo	orward				
	2.209	FIRE AND SMOKE DETECTION SYSTEM				
		.01 Allow the sum of R 148,000.00 for the installation of smoke detection	-	PC	PC sum	148 000
		.02 Attendance and profit	%	148 000	%	
	2.210	Lister diesel engine				
		.01 Service diesel engine	number	3		
		.02 Replace fuel filter element	number	3		
		.03 Replace air cleaner element	number	3		
		.04 Replace oil filter	number	3		
		.05 Replace starter battery	number	2		
		.06 First Aid Kit (FAK 02A)	number	1		
		.07 Wall-mounted paper towel dispenser complete with paper cartridge	number	1		
		ARRIED TO SUMMARY: REPAIR WORK				

# SCHEDULE 3: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ALEXANDER BAY PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	3.00	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ALEXANDER BAY PORT OF ENTRY				
SA.01	3.01	Maintenance and Servicing of Installations: Alexander Bay Port of Entry				
		.01 Plumbing and Drainage as per specification SA 07.01	point	360		
		.02 Electrical Installations as per specification SA 07.02	point	360		
	(LI)	.03 Fencing, refuse removal and Pest Control as per specification SA 07.03 to SA 07.04	point	360		
	(LI)	.04 Cleaning and Site Keeping as per specification SA 07.05	point	360		
		.05 External Water and Sewer Network as per specification SA 07.06 to SA 07.12	point	360		
	(LI)	.06 Roads and Stormwater Drainage as per specification SA 07.13 to SA 07.14	point	360		
		.07 External Lighting and Standby Power as per specification SA 07.15 to SA 07.17	point	360		
		.08 HVAC and Air-conditioning system as per specification SA 07.18	point	360		
		.09 Fire Fighting Equipment as per specification SA 07.19	point	360		
		.10 Water Treatment System as per specification SA 07.10	point	360		
	3.02	Mandatory periodical services not included in preventative maintenance items as listed above:				
HB.02		.01 Clean, dust, inspect and test-run genset as per specification - 75kVA Genset	number	36		
HB.03		.02 Service generator engine every 200 running hours as per specification - 75kVA Genset - by an approved agent	number	6		
	(LI)	.03 Logging and recording of all water meter readings on a monthly basis - Alexander Bay Port of Entry	month	36		
	Carried for	prward				

# SCHEDULE 3: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ALEXANDER BAY PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought f	orward				
	(LI)	.04 Logging and recording of all electricity meter readings on a monthly basis - Alexander Bay Port of Entry	month	36		
EJ.01		.05 Potable water quality tests to be performed by an approved authorised person on at least a monthly basis - Alexander Bay Port of Entry	number	36		
CE.07	(LI)	.06 Cleaning and sterilization of storage tank	number	2		
CG.01	(LI)	.07 Emptying of waste skip at Alexander Bay Port of Entry on a weekly basis measured monthly as per CG.01		36		
EG.01		.08 Cleaning out septic tanks and dispose of contents off-site	number	4		
FN.02		.09 Servicing of dosing pumps	number	2		
FD.01		.10 Service air-conditioning units as per FD 03.06 on a yearly basis	number	54		
JC.04		.11 Statutory annual servicing of fire extinguishers	number	44		
JC.02		.12 Statutory annual servicing of fire hydrants and fire hose reels	number	2		
CG.04		.13 Alexander Bay Port of Entry Pest, termite and rodent control (internal)	number	12		
CG.05		.14 Alexander Bay Port of Entry Pest and termite control (external)	number	12		
		.15 Alexander Bay Port of Entry rodent control bai station stations including poison	t number	42		
CK.03	(LI)	.16 Monitoring of storage tank levels on site at Alexander Bay Port of Entry	month	36		
HB.06		.17 Supply diesel fuel Alexander Bay Port of Entry	litre	3500		
	3.03	Facility Management:				
SF.01		.01 Operation of Water filtration and purification system, including all chemicals, filters, etc required on a monthly basis	month	36		
	Carried for	prward				

# SCHEDULE 3: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ALEXANDER BAY PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought f	forward				
	3.04	Payment reduction:				
SA.02		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	hours	-	-150.00	rate only
SA.03		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days	-	-200.00	rate only
SA.04		.03 Payment reduction due to exceeding of maximum allowable down-time during damage breakdown	days	-	-200.00	rate only
SA.05	3.05	Emergency Breakdown:				
		.01 Emergency Breakdown (12 Hours) response - As per specification SA.	No	36		
		SCHEDULE 3: CARRIED TO SUMMARY: PREVENT NANCE AND MANDATORY PERIODICAL SERVICIN				

SCHEDULE 4: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	4.00	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY				
SA.01	4.01	Maintenance and Servicing of Installations: Vioolsdrift Port of Entry				
		.01 Plumbing and Drainage as per specification SA 07.01 (including solar geysers as per O&M Manual)	point	360		
		.02 Electrical Installations as per specification SA 07.02	point	360		
	(LI)	.03 Fencing, refuse removal and Pest Control as per specification SA 07.03 to SA 07.04	point	360		
	(LI)	.04 Cleaning and Site Keeping as per specification SA 07.05	point	360		
		.05 External Water and Sewer Network as per specification SA 07.06 to SA 07.12	point	360		
	(LI)	.06 Roads and Stormwater Drainage as per specification SA 07.13 to SA 07.14	point	360		
		.07 External Lighting and Standby Power as per specification SA 07.15 to SA 07.17	point	360		
		.08 HVAC and Air-conditioning system as per specification SA 07.18	point	360		
		.09 Fire Fighting Equipment as per specification SA 07.19	point	360		
		.10 Wastewater Treatment Plant as per specification SA 07.11 to SA 07.12	point	360		
		.11 Water Treatment Plant as per specification SA 07.10	point	360		
		.12 Telemetry as per specification SA 07.20	point	360		
	4.02	Mandatory periodical services not included in preventative maintenance items as listed above:				
HB.02		.01 Clean, dust, inspect and test-run genset as per specification - 375kVA Genset	number	36		
HB.03		.02 Service generator engine every 200 running hours as per specification - 375kVA Genset - by an approved agent	number	6		
	Carried f	orward				

# SCHEDULE 4: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought f	forward	•			
HB.02		.03 Clean, dust, inspect and test-run genset as per specification - 15kVA Genset A	number	36		
HB.03		.04 Service generator engine every 200 running hours as per specification - 15kVA Genset - by an approved agent	number	3		
HB.02		.05 Clean, dust, inspect and test-run genset as per specification - 15kVA Genset B	number	36		
HB.03		.06 Service generator engine every 200 running hours as per specification - 15kVA Genset - by an approved agent	number	3		
HB.02		.07 Clean, dust, inspect and test-run genset as per specification - 15kVA Genset C	number	36		
HB.03		.08 Service generator engine every 200 running hours as per specification - 15kVA Genset - by an approved agent	number	3		
HB.02		.09 Clean, dust, inspect and test-run genset as per specification - 15kVA Genset D	number	36		
HB.03		.10 Service generator engine every 200 running hours as per specification - 15kVA Genset - by an approved agent	number	3		
	(LI)	.11 Logging and recording of all water meter readings on a monthly basis - Vioolsdrift Port of Entry	month	36		
	(LI)	.12 Logging and recording of all electricity meter readings on a monthly basis - Vioolsdrift Port of Entry	month	36		
EJ.01		.13 Potable water quality tests to be performed by an approved authorised person on at least a monthly basis - Vioolsdrift Port of Entry	number	36		
CE.07	(LI)	.14 Cleaning and sterilization of storage tank	number	8		
CG.01	(LI)	.15 Emptying of waste skip at Vioolsdrift Port of Entry on a weekly basis measured monthly as per CG.01	month	36		
EG.01		.16 Cleaning out septic tank system and dispose of contents off-site	m³	22		
FN.02		.17 Servicing of dosing pumps	number	6		
FN.02		.18 Servicing of desludging pump	number	6		
FN.02		.19 Servicing of product feed pump	number	6		
	Carried for					

# SCHEDULE 4: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought f	orward				
FN.02		.20 Servicing of high lift pump	number	3		
FN.02		.21 Servicing of raw water substruction pumps and ensure standby pump is always operational	number	3		
FD.01		.22 Service air-conditioning units as per FD 03.06 on a yearly basis	number	524		
FD.01		.23 Service water cooler units as per manufacturers specification on a yearly basis	number	70		
JC.04		.24 Statutory annual servicing of fire extinguishers	number	512		
JC.02		.25 Statutory annual servicing of fire hydrants and fire hose reels	number	24		
CG.04		.26 Vioolsdrift Port of Entry Pest, termite and rodent control (internal)	number	12		
CG.05		.27 Vioolsdrift Port of Entry Pest and termite control (external)	number	12		
		.28 Vioolsdrift Port of Entry rodent control bait station stations including poison	number	58		
CK.03	(LI)	.29 Monitoring of storage tank levels on site at Vioolsdrift Port of Entry	month	36		
HB.06		.30 Supply diesel fuel Vioolsdrift Port of Entry	litre	11000		
	4.03	Facility Management:				
SF.01		.01 Operation of Water purification system, including all pumps, tanks, flocculation device, chemicals (sufficient stock), filters (monthly), accumulation tanks, chemical tank, electrical switchgear, PLC controls system and instrumentation etc required on a monthly basis in order to ensure automatic and manual operation for clean drinking water.	month	36		
SF.01		.02 Operation of wastewater system including sewer pump stations, Huber inlet system, septic tanks, reed beds, drying beds, etc required on a monthly basis in order to ensure final effluent water is within limits	month	36		
EJ.02		.03 Final effluent test samples and reach a laboratory within 24 hours. All chemical and bacteriological analysis results are to be kept on record by the operator.	month	36		
	Carried for	prward				

# SCHEDULE 4: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought t	forward				
SA		.04 Harvest of vegetation on all the reed beds at least once a year. Operation will include cutting off the plants at a height of 300mm above the media surface using either powered brush cutters or hand using sickles. All cut off vegetation is to be removed from the media surface as far as possible and dispose off site.	year	3		
ss		.05 Servicing of sand filter units and filters on a yearly basis including the replacement of silica sand of approximately 200kg	year	3		
	4.04	Payment reduction:				
SA.02		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	hours	-	-150.00	rate only
SA.03		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days	-	-200.00	rate only
SA.04		.03 Payment reduction due to exceeding of maximum allowable down-time during damage breakdown	days	-	-200.00	rate only
SA.05	4.05	Emergency Breakdown:  .01 Emergency Breakdown (12 Hours) response - As per specification SA.	No	36		
		SCHEDULE 4: CARRIED TO SUMMARY: PREVENTA NDATORY PERIODICAL SERVICING	ATIVE MAI	NTENANCE		

SCHEDULE 5: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ONSEEPKANS PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	5.00	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ONSEEPKANS PORT OF ENTRY				
SA.01	5.01	Maintenance and Servicing of Installations: Onseepkans Port of Entry				
		.01 Plumbing and Drainage as per specification SA 07.01	point	360		
		.02 Electrical Installations as per specification SA 07.02	point	360		
	(LI)	.03 Fencing, refuse removal and Pest Control as per specification SA 07.03 to SA 07.04	point	360		
	(LI)	.04 Cleaning and Site Keeping as per specification SA 07.05	point	360		
		.05 External Water and Sewer Network as per specification SA 07.06 to SA 07.12	point	360		
	(LI)	.06 Roads and Stormwater Drainage as per specification SA 07.13 to SA 07.14	point	360		
		.07 External Lighting and Standby Power as per specification SA 07.15 to SA 07.17	point	360		
		.08 HVAC and Air-conditioning system as per specification SA 07.18	point	360		
		.09 Fire Fighting Equipment as per specification SA 07.19	point	360		
		.10 Water Treatment Plant as per specification SA 07.10	point	360		
	5.02	Mandatory periodical services not included in preventative maintenance items as listed above:				
HB.02		.01 Clean, dust, inspect and test-run genset as per specification - 85kVA Genset	number	36		
HB.03		.02 Service generator engine every 200 running hours as per specification - 85kVA Genset - by an approved agent	number	3		
	(LI)	.03 Logging and recording of all water meter readings on a monthly basis - Onseepkans Port of Entry	month	36		
	(LI)	.04 Logging and recording of all electricity meter readings on a monthly basis - Onseepkans Port of Entry	month	36		
	Carried f	orward				

# SCHEDULE 5: PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ONSEEPKANS PORT OF ENTRY

PAYMENT REFERS TO	ITEM NO	DESCRIPTION	UNIT	QUAN- TITY	RATE	AMOUNT
	Brought	forward				
≣J.01		.05 Potable water quality tests to be performed by an approved authorised person on at least a monthly basis - Onseepkans Port of Entry	number	36		
CE.07	(LI)	.06 Cleaning and sterilization of storage tank	number	2		
CG.01	(LI)	.07 Emptying of waste skip at Onseepkans Port of Entry on a weekly basis measured monthly as per CG.01	month	36		
EG.01		.08 Cleaning out septic tank system and dispose of contents off-site	number	3		
FN.02		.09 Servicing of dosing pumps	number	6		
FD.01		.10 Service air-conditioning units as per FD 03.06 on a yearly basis	number	24		
JC.04		.11 Statutory annual servicing of fire extinguishers	number	18		
CG.04		.12 Onseepkans Port of Entry Pest, termite and rodent control (internal)	number	12		
CG.05		.13 Onseepkans Port of Entry Pest and termite control (external)	number	12		
		.14 Onseepkans Port of Entry rodent control bait station stations including poison	number	29		
CK.03	(LI)	.15 Monitoring of storage tank levels on site at Onseepkans Port of Entry	month	36		
HB.06		.16 Supply diesel fuel Onseepkans Port of Entry	litre	3000		
	5.03	Payment reduction:				
SA.02		.01 Payment reduction due to exceeding of maximum allowable down-time during emergency breakdown	hours	-	-150.00	rate only
SA.03		.02 Payment reduction due to exceeding of maximum allowable down-time during ordinary breakdown	days	-	-200.00	rate only
SA.04		.03 Payment reduction due to exceeding of maximum allowable down-time during damage breakdown	days	-	-200.00	rate only
SA.05	5.04	Emergency Breakdown:				
		.01 Emergency Breakdown (12 Hours) response - As per specification SA.	No	36		
	1	SCHEDULE 5: CARRIED TO SUMMARY: PREVENT NDATORY PERIODICAL SERVICING	FATIVE MAI	NTENANCE		

### **DEPARTMENT OF PUBLIC WORKS**

ALEXANDER BAY, VIOOLSDRIFT AND ONSEEPKANS LAND PORTS OF ENTRY: REPAIR AND MAINTENANCE OF BUILDINGS, CIVIL, MECHANICAL AND ELECTRICAL INFRASTRUCTURE AND INSTALLATIONS FOR A PERIOD OF 36 MONTHS

CALCULATION OF	TENDER SUM	TENDER AMOUNT
SCHEDULE 1	GENERAL: REPAIR AND MAINTENANCE	R
SCHEDULE 2	REPAIR OF INFRASTRUCTURE	R
SCHEDULE 3	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ALEXANDER BAY PORT OF ENTRY	R
SCHEDULE 4	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT VIOOLSDRIFT PORT OF ENTRY	R
SCHEDULE 5	PREVENTATIVE MAINTENANCE AND MANDATORY PERIODICAL SERVICING AT ONSEEPKANS PORT OF ENTRY	R
SUBTOTAL		R
VALUE-ADDED TA. The tenderer shall a	X (VAT) add 15% of the subtotal for value-added tax	R
TENDER SUM CAR	RRIED TO FORM OF TENDER	R