

**PRETORIA NATIONAL BOTANICAL GARDEN
 SCHEDULE OF QUANTITIES FOR PLUMBING**

Item No.	Description	Unit	Amount
	<u>PLUMBING AND DRAINAGE REPAIRS</u>		
	Items that are existing and prices are to include for taking out damaged items, safely disposing thereof, preparing and installing new items.		
	All repairs/servicing are to conform to the relevant SANS		
	<u>HEALTH AND SAFETY</u>		
	The Contractor is to comply with the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and any amendments thereto.		
	A Health & Safety Plan needs to be submitted to the Department for approval prior to site handover and commencing any work.		
	<u>SUPPLY, DELIVER, INSTALLATION, TEST AND COMMISSION</u>		
	Geyser sundries supply		
	10L Prisma (Under counter)	1	
	50L	1	
	100L	1	
	150L	1	
	200L	1	
	Supply solar panel to geysers	1	
	Supply thermostat	1	
	Supply element (3kw)	1	
	Supply element (4kw)	1	
	Supply valve (100kpa)	1	
	Supply valve (200kpa)	1	
	Supply valve (400kpa)	1	
	Supple vacuum breaker	15MMX350mm	
	Flexi connectors pipes	15MMX450mm	
	Flexi connectors pipes	1	
	Supply geyser drip tray valve connector	25MM	

HDP MALE ADAPTOR	32MM	
HDP MALE ADAPTOR	40MM	
HDP MALE ADAPTOR	50MM	
HDP MALE ADAPTOR	63MM	
HDP MALE ADAPTOR	75MM	
HDP MALE ADAPTOR	25MM	
HDP FEMALE ADAPTOR	32MM	
HDP FEMALE ADAPTOR	40MM	
HDP FEMALE ADAPTOR	50MM	
HDP FEMALE ADAPTOR	63MM	
HDP FEMALE ADAPTOR	75MM	
HDP FEMALE ADAPTOR	25MM	
Supply HDP Elbow	32MM	
Supply HDP Elbow	40MM	
Supply HDP Elbow	50MM	
Supply HDP Elbow	63MM	
Supply HDP Elbow	75MM	
Supply HDP Elbow	40X50	
PVC -CLASS 16 PIPE ADAPTOR	50X50	
PVC -CLASS 16 PIPE ADAPTOR	15MM	
Supply copper elbow	22MM	
Supply copper elbow	5MMX6M	
Supply copper pipes	22MMX6M	
Supply copper pipes	15MM	
COPPER TEE PIECE	22MM	
COPPER TEE PIECE	15MM 45 DEGREES	
Supply copper elbow	22MM 45 DEGREES	
Supply copper elbow		
Supply copper coupling	42mm	
Supply copper elbow	42mm	
Supply copper elbow female	15mm	
Copper tube	42mmx5.5m	
Copper reducer male to female	22x15mm	

Copper reducer male to female	22x28mm	
Geyser SANS 10254 compliance		
Sewer supply sundries		
Supply PVC pipe (110mm)	1	
Supply rodding eye	1	
Supply drain cleaner	1	
Supply drain machine cleaner	1	
Supply sewer pumps	1	
Supply bathroom, kitchen and shower sundries		
Supply Giberit cistern and pan	1	
Supply bathroom basin	1	
Supply basin taps	1	
Supply basin pipes	1	
Supply toilet (Cistern set) white	1	
Supply toilet pan white	1	
Supply toilet pan seal	1	
Supply pan connector	1	
Supply toilet seat (white)	1	
Supply toilet seat cover (white)	1	
Supply toilet flushing mechanism	1	
Supply flexi connector pipes	1	
Supply stop cock (22mm)	1	
Supply stop cock (15mm)	1	
Supply gate valves	1	
Supply PVC pipes	1	
Supply urinal set white	1	
Supply urinal flush master	1	
Supply toilet flush master	1	
Supply urinal drain	1	
Supply urinal trap	1	
Supply ball valve and handle	1	
Supply disabled toilet white	1	

Supply disabled flushing mechanism	1	
Supply battery-operated hands-free urinal flush master	1	
Supply disabled tap	1	
Supply under tile shower tap 15mm	1	
Supply shower head	1	
Supply shower head pipes	1	
Supply shower glass	1	
Supply kitchen sink (Zinc)	1	
Supply kitchen taps	1	
Supply kitchen tap mixers	1	
Supply Hydro boilers		
5L	1	
10L	1	
20L	1	
Supply pumps		
Supply borehole pumps	1	
Supply heat pumps	1	
Supply booster pumps	1	
Supply submersible water pumps	1	
Sprinkler systems and irrigation plumbing		
Supply sprinkler systems	1	
Supply irrigation plumbing	1	
Replacement of sewer pipes, drain etc	Per M ²	
Excavation		
Replace existing sewer (PVC pipe)		
Replace existing drain		
Replace cleaning eyes		
Pipe pressure test		
Install/replace sewer pumps		
Service sewer pumps		
Blocked sewer, sink, drain, shower traps, toilet etc.		
Blocked water drains		
Blocked sink		

Blocked shower trap		
Blocked sewer lines (waste line blockages)		
Gutters	Per M ²	
Supply steel/aluminium gutters		
Supply/Installing fittings/fixtures	Per M ²	
Providing and fixing Fixtures as per the approved model including all necessary accessories, connection pipes, toilets, basins, urinals etc including testing / commissioning the fixture to working condition		
Installation/Repair/Replacement	Per M ²	
New installation to pvc and fabricated gutters		
Repairs and replacement of storm water channels and down pipes		
Waterproofing and repairs to box gutters		
Servicing of waterless urinals and valves		
Replacement and repairs to flush masters		
Repairs to water storage and header tanks		
Repairs and replacement of shower doors		
Grease trap cleaning and servicing		
Servicing, and repairs to water filtration & purification systems		
Drain camera Inspections		
Installation, repairs and replacement of water meters		
Installation of borehole water supply's		
Repairs galvanise pipes		
Replace galvanises pipe with copper pipe work		
New copper pipe work		
Re root of existing pipe work		
Leak detection (Taps, mixers, geyser, toilets, showers, pipes etc)		
Geyser leak detection		
Leaking taps		
Leaking sink		
Leaking sink pipes		
Leaking mixers		
Leaking toilets (pan)		
Leaking toilet cistern		

	Leaking showers head Leaking water pipes Leaking irrigation pipes Pipe bursts (mainline and other) Service provider to ensure that the area worked on should be replaced to its original form, e.g., removing of paving bricks etc. Drawing the map of water supply of the entire garden		
TOTAL			R

NB: It may not be feasible to include every item on the BoQ and as such should material which is not on the BoQ be required then such items will be requested from the service provider in a written quotation to supply and install such items.

Labour	Unit Rate	QTY	Normal hours rate (08:00 – 17:00)	After hours rate (17:00-08:00)	Weekend hours rate	Total
Call out fee	Hour	1	R	R	R	R
Qualified plumber	Hour	1	R	R	R	R
Plumber assistant	Hour	1	R	R	R	R
Labour rate per hour	Hour	1	R	R	R	R
Transport	Unit Rate	QTY	Kilometre (km) rate			Total
Cost per Kilometre	km	1				

SUBTOTAL	
VALUE ADDED TAX (VAT) @ 15%	
TOTAL PRICE	