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Tel: +27 (0) 21 914 0300
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Our reference : 24073CB/TEN/ML/hb/01

Your reference :

14 October 2025

TO : **SEE BELOW**
CLIENT : **BERGRIVIER MUNICIPALITY**
CONTRACT NO : **T.8.3.35-2025 MN 199/2025**

Sirs

UPGRADING OF EENDEKUIL WTW AND NEW 500Kℓ RESERVOIR

We enclose a copy of each of the following:

1. Addendum no 1 to the above contract.
2. Form for receipt, acceptance and incorporation of Addendum & Minutes of the Site Inspection Meeting.

You are required to incorporate the amendments and additions detailed in the Addendum into your tender document and to submit the signed and duly completed addendum and minutes of the site inspection meeting with your tender.

Yours faithfully

Monique Lyners Pr Eng

ANNEXURES

ANNEXURE A: BILL OF QUANTITIES (PAGE C2.3(a) TO C2.88(a))
ANNEXURE B: WATER TARIFFS

TO: COMPANY:	ATT:	EMAIL:
Seapro SA	Sergio	sergio@seaprosa.co.za
Ruwacon	Pieter du Toit	Infra.tenders@ruwacon.co.za
Afriline Civils	Dino Cupido	morne@afriline.co.za
		dino@afriline.co.za
Amandla	Morne Gouws	mel@amandlaconstruction.co.za
Khubeka Construction	Irwin Ross	irwin@khubeka.co.za
		mark@khubeka.co.za
Mainline Civils	Andy Pienaar	andy@mainlinesa.co.za
Tess Engineers	Andries Grundlingh	andriesg@tessengineers.co.za
AUMA	H de Klerk	fh@auma.co.za
Naledi Trading	D'Heil Henn	dheilhenn@naleditrading.co.za
Burger and Wallace	Jaco Lloyd	jacol@burgerandwallace.co.za
Exeo	Shaun O'Neill	tenders@exeo.co.za
On Point On Time	Allan	info@onpointontime.co.za
WRR Master Specialist	Benny	tenders@masterspecialists.co.za
Bergrivier Municipality	Coellin	juliusc@bergmun.org.za
JVZ Construction	Anrich Bitzi	anrich@jvzconstruction.co.za
Kaddon Projects	Ronnie Kadye	info@kaddonprojects.co.za
Alveo Water	P Grobler	p.grobler@alveowater.co.za
Lwazi Construction	J Kieser	tenders@lwaziconstruction.com
Bergrivier Municipality	Leon Janse van Rensburg	jansevanrensburgl@bermun.org.za
Bergrivier Municipality	A Willemse	willemsea@bergmun.org.za
Bergrivier Municipality	W Burger	burgerw@bergmun.org.za
Trenchless Technologies	Alliance Samba	marco@trenchless.co.za
Reflekt Water	F Smuts	francois@reflektwater.com
Reflekt Water	L de Wet	leroi@reflektwater.com
MNE Oak	A Steenkamp	andries@mne-oak.co.za
Lyners	C Davids	carel@lyners.co.za
Lyners	M Lyners	monique@lyners.co.za
Lyners	H Blignaut	henri@lyners.co.za

1. ADDENDUM NO 1

This Addendum and the Minutes of the Site Inspection Meeting forms part of the tender documents.

Each tenderer for this contract shall incorporate the following amendments and additions into this tender and record the addendum on form T2.2.8: Record of Addenda to Tender Documents.

Each tenderer is also required to acknowledge receipt of an acceptance of the amendments and additions contained in this Addendum and the Minutes of the Site Inspection Meeting to the Engineer, and to submit the completed, signed Addendum and the Minutes of the Site Inspection Meeting with this tender.

No pages may be removed from the Addendum.

Please revise the Contract documents as follows:

Note: Deletion indicated as red, bold and strikethrough (e.g. "~~**delete**~~") and additions as green and bold (e.g. "**addition**").

1.1 PART T2 : RETURNABLE DOCUMENTS

1.1.1 T2.2 Returnable Schedules (Page T2.64: Table 1.14.5)

Item no. 1.14.5.8

Amend this item as follows:

ITEM	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1.14.5.8	Communication protocol		Modbus or 4 to 20mA HART	

1.2 PART C1 : AGREEMENTS AND CONTRACT DATA

1.2.1 C1.2: Contract Data (Page C1.4)

Amend the first paragraph under "A: General Conditions of Contract" as follows:

"The Conditions of Contract comprise the General Conditions of Contract which form part of the **Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor, Second Edition 2017 reprinted 2022 with amendments** (Yellow Book) published by Federation Internationale des Ingénieurs-Conseils (FIDIC) the Contract Data C1.2 Part 1 – Contract Data provided by the Employer, which includes the following Particular Conditions or "Special Provisions" amending and add to such General Conditions and the Appendix to Tender Part 1 - Contract Data provided by the Employer and Contract Data C1.2 Part 2 – Contract Data provided by the Contractor."

1.3 PART C2 : PRICING DATA

1.3.1 C2.2 : Bills of Quantities

Page C2.3 to C2.89

Replace pages ~~C 2.3~~ through to ~~C 2.87~~ (Schedule A to Schedule E) with pages C 2.3(a) to C 2.88(a) attached hereto as Annexure A.

The following amendments were incorporated:

(a) All "0.00" values in the "Rate" and "Amount" columns have been removed.

(b) Item no. B.189 on Page C2.27(a) has been removed entirely from the Schedule of Quantities.

(c) Item no. E.363 has been amended as follows:

Item no	Payment	Description	Unit	Quantity
E.363		20-LE-01 with sensing range of 0 to 5 meters	No	1

(d) Page C2.89 has been removed entirely.

1.4 PART C3 : SCOPE OF WORK

1.4.1 PART C3.1 : Description of Works

Clause C 3.1.2 Overview of the Works (Page C3.2)

Amend the content of the clause as follows:

"The work to be carried out includes ~~replacement of existing water pipes with HDPE pipes with trenchless methods~~ upgrading of the Eendekuil WTW including provision of additional storage."

1.4.2 PART C3.6.2 : Variations and Additions to the SANS Standardized Specifications

Clause PSA 8.5.1 Works Executed by the Contractor (Page C3.51)

Replace the reference to Clause ~~6.6~~ of the Conditions of Contract with Clause 13.4.

Clause PSA 8.7 DAYWORK (Page C3.51)

Replace the reference to Sub-clause ~~6.5~~ of the Conditions of Contract with Sub-clause 13.5.

Clause PSG 8.10 (Page C3.79)

Add the following after "The sum shall include for all water required for the successful watertight testing of the structure":

"The Contractor must purchase the water from the municipality at the commercial rates."

The water tariffs are appended hereto as Annexure B.

1.4.3 PART C3.6.4: Mechanical and Electrical Specifications

Clause 2.11.3 Equipment Data and Duties (Page C3.206)

In the table for "*120-FM-01*" in line 12 of the "*Specifications*" column, replace ~~Modbus~~ with 4 to 20mA.

Clause 2.11.3 Equipment Data and Duties (Page C3.209)

In the table for "*Pressure Transducers*" in line 6 of the "*Specifications*" column, replace ~~Modbus~~ with Modbus or 4 to 20mA HART.

1.5 PART C4: SITE INFORMATION (PAGE C4.2)

Add the following:

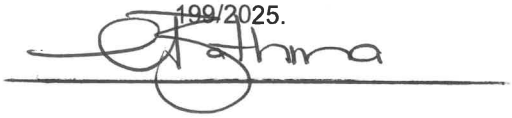
2. ACCEPTANCE AND INCORPORATION OF ADDENDUM

Note : Please email a copy of this completed form as soon as possible to the Engineer to acknowledge receipt

I/We accept that Addendum No 1 and the Minutes of the Site Inspection meeting form part of these tender documents.

I/We confirm that I/We -

(a) have taken note of the contents of this Addendum and the Minutes of the Site Inspection Meeting,
(b) have fully considered this Addendum and the Minutes of the Site Inspection Meeting, and
(c) have incorporated the amendments and additions contained in this Addendum and the Minutes of the Site Inspection Meeting into my/our tender for Contract no. T.8.3.35-2025 MN 199/2025.



14/10/2025

SIGNED ON BEHALF OF THE TENDERER : _____

NAME OF SIGNATORY : _____

NAME OF TENDERER : _____

AS WITNESSES :
(SIGNATURES)

1. _____

2. _____

NAMES OF WITNESSES :
(BLOCK LETTERS)

1. _____

2. _____

DATE : _____

"C4.5: Water Tariffs

Tenderers are advised that the commercial water tariffs attached will apply to contractors for water use for construction or watertightness tests."

Add the water tariffs included in Annexure B after page C4.2 as page C4.2(a).

ANNEXURE A:

BILL OF QUANTITIES (PAGE C2.3(a) TO C2.88(a))

BERGRIVIER MUNICIPALITY
CONTRACT NO: T.8.3.35-2025 MN 199/2025
UPGRADING OF THE EENDEKUIL WTW AND NEW 500KL RESERVOIR
SCHEDULE A: PRELIMINARY AND GENERAL

SECTION 1200 A : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
A.1	SABS 1200 A	**GENERAL**				
		as specified in SABS 1200 A and in the project specifications				
	8.3	FIXED CHARGES AND VALUE RELATED ITEMS				
A.2	PSA 8.3.1	Fixed preliminary and general charges	Sum	1		
A.3	PSA 8.3.2	Value related preliminary and general charges	Sum	1		
	PSA 8.3.5	Cost of survey in terms of Land Survey Act:				
A.4		Locate, record, protect and reinstate pegs	Sum	1		
	PSA 8.4	SCHEDULED TIME RELATED ITEMS				
	PSA 8.4.1	Time related preliminary and general charges :				
A.5	PSA 8.4.1.1	The contract period during the normal industry working period (outside public holidays and the industry shutdown period during December and January)	Sum	1		
A.6	PSA 8.4.1.2	Public Holidays	No			
A.7	PSA 8.4.1.3	SAFCEC recommended shutdown period during December and January	Sum	1		
	PSA 8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
	PSA 8.5.1	Works executed by the Contractor:				
A.8		(a) Plumbing works for operator room	Prov Sum	1		20,000.00
A.9		(b) Charge required by contractor on sub-item (a) above	%	20,000.00		
A.10		(e) The raising or lowering of water pipelines	Prov Sum	1		10,000.00
A.11		(f) Charge required by the Contractor on sub-item (e) above	x100%	10,000		
TOTAL CARRIED FORWARD						

SECTION 1200 A : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
	PSA 8.6	PRIME COST SUMS				
		(1) Communication allowances:				
A.12		(a) The cost of calls in connection with contract administration and telephone and cellular telephone rental	PCSum	1		10,000.00
A.13		(b) Charge required by Contractor on sub-item (a) above	%	10,000.00		
		(2) Additional testing of materials required by Engineer:				
A.14		(a) Cost of testing	PCSum	1		25,000.00
A.15		(b) Charge required by Contractor on sub-item (a) above	%	25,000.00		
		(4) As built surveys:				
A.16		(a) Cost of as built surveys	PCSum	1		15,000.00
A.17		(b) Charge required by Contractor on sub-item (a) above	x100%	15,000		
	PSA 8.7	DAYWORK				
	PSA 8.7.1	Dayworks:				
		(a) Vehicles, plant and equipment:				
		(3) Hydraulic excavator with bucket at least 500 mm wide				
A.18		20 Ton (> 115kW @ 1800 rmp)	h	5		
A.19		25 Ton (> 130 kW @ 2000 rmp)	h	5		
A.20		30 Ton (>145 kW @ 1800 rmp)	h	5		
A.21		(4) Loader Backhoe	h	10		
A.22		(5) Dumper (> 10m³ capacity)	h	10		
A.23		(6) Tipper truck, more than 5m³ capacity	h	5		
A.24		(8) Flat bed truck equipped with hydraulic crane of more than 2 t capacity	h	5		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
		(9) Water trucks:				
A.25		(i) 12 kℓ capacity	h	20		
		(11) Compressors:				
A.26		(i) Up to 10m³/minute	h	5		
		(12) Concrete mixer:				
A.27		(ii) Over 400 l capacity	h	100		
		(13) Water pump:				
A.28		(i) 200 ℓ/min capacity @10m head	h	50		
A.29		(ii) 600 ℓ/minute capacity @ 10m head	h	100		
A.30		(iii) 1200 ℓ/minute capacity @10m head)	h	100		
		Labour:				
		(a) Labour:				
A.31		(1) Labourer	h	40		
A.32		(2) Semi-skilled labourer	h	10		
A.33		(3) Skilled labourer	h	10		
A.34		(4) Artisan	h	10		
A.35		(5) Team Leader	h	5		
A.36		(6) Foreman	h	5		
A.37		(7) Surveyor	h	10		
	PSA 8.8	TEMPORARY WORKS				
A.38	PSA 8.8.2	Accommodation of traffic	Sum	1		
	PSA 8.8.4	Location and protection of existing services:				
	PSA 8.8.4.1	Provision of detecting devices for:				
A.39		(a) Water and sewer pipes	Sum	1		
A.40		(b) Electrical and other cables	Sum	1		
TOTAL CARRIED FORWARD						

SECTION 1200 A : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
	PSA 8.8.4.2	Hand excavation necessary for locating and exposing existing services in all materials:				
A.41		(a) In roadways	m³	100		
A.42		(b) In all other areas	m³	50		
	PSA 8.8.7	Dealing with water:				
A.43		(a) Dealing with subsurface water	Sum	1		
A.44		(b) Dealing with surface water	Sum	1		
	PSA 8.8.8	Temporary fence minimum 1,2 m high				
A.45		(a) 1,2 m high	m	1,500		
A.46	PSA 8.8.9	Dismantle and re-erect temporary 1,2 m high fence	m	800		
A.47	PSA 8.8.10	Dust control	Sum	1		
A.48	PSA 8.10	Accommodating other Contractors	Sum	1		
A.49	PSA 8.12	Compliance with the Occupational Health and Safety Act (Act No 85 of 1993) and Construction Regulations and specifications included in the Particular Specification	Sum	1		
A.50	PSA 8.13	Compliance with the Environmental Management Plan and requirements included in the Particular Specification	Sum	1		
A.51	PSA 8.17	Photographic Record	Sum	1		
A.52	PSA 8.19	Liaison with residents and the local authority	Sum	1		
A.53	PSA 8.20	Record of test results and related administration	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE A: SUMMARY OF SECTIONS	
SCHEDULE A: PRELIMINARY AND GENERAL	
Total Carried Forward To Summary Of Schedules	

SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
B.1	SABS 1200 C	**SECTION : SITE CLEARANCE**				
		CLEAR SITE				
	PSC 8.2.1	Clear and grub:				
B.2		Site	m²	810		
		Pipeline routes				
B.3		3 m wide	m²	600		
	8.2.2	Remove and grub large trees and tree stumps of girth over and up to				
B.4		Over 1,0 m up to and including 2,0 m	No	5		
B.5	PSC 8.2.7	Dismantle and remove pipelines (not encased in concrete), electricity transmission lines, cables, etc.	m	50		
B.6	PSC 8.2.7	Dismantle and remove pipelines encased in concrete	m	5		
	PSC 8.2.8	Demolish and remove structures/buildings				
B.7		Existing WTW Container	Sum	1		
B.8		Existing JOJO tank	Sum	1		
B.9	8.2.10	Remove topsoil to nominal depth of 150 mm and stockpile	m³	135		
B.10	PSC 8.2.11	Remove topsoil to spoil site furnished by the contractor	m³	80		
B.11	PSC 8.2.15	Remove and dispose of kerbing	m	50		
B.12	PSC 8.2.16	Take down existing fences and deliver to municipal store	m	160		
	PSC 8.2.17	Rip and clear tarred and paved areas				
B.13		Existing paved area at WTW	m²	90		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 D : EARTHWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 D	**EARTHWORKS** as specified in SABS 1200 D and in the project specifications				
	PSD 8.3	SCHEDULED ITEMS				
	PSD 8.3.3	Restricted excavation: Excavate for footings in all materials, and use for backfill or embankment, or dispose (a) Excavate for restricted foundations in all materials, and use for backfill or embankment, or dispose				
B.14		i) For proposed reservoir	m³	425		
B.15		ii) For proposed WTW building	m³	200		
		(b) Extra over items above for:				
B.16		Intermediate excavation	m³	100		
B.17		Hard rock excavation	m³	10		
B.18		Boulder excavation Class A	m³	2		
B.19		Boulder excavation Class B	m³	2		
B.20	PSD 8.3.3 (c)	(c) Extra over item 8.3.3 (a) for hand excavation	m³	5		
B.21	PSD 8.3.4	Importing of materials from commercial sources and use for fill (clean sand, G7, compacted to 100% Mod AASHTO)	m³	185		
	8.3.8.2	Dealing with services that are at risk because of the construction of earthworks:				
B.22		(a) Cables	No	2		
B.23	PSD 8.3.10	Topsoiling	m³	135		
B.24	PSD 8.3.16	Extra over items 8.3.2 and 8.3.3 for disposing of spoil material on a site provided by the contractor	m³	460		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.25	PSD 8.3.19	Compaction of in-situ material to a depth of 300 mm	m²	450		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 DB	**EARTHWORKS (PIPE TRENCHES)** as specified in SABS 1200 DB and in the project specifications PIPELINE TRENCHES				
	PSDB 8.3.2	Excavation: Excavate in all materials for trenches, backfill, compact and dispose of surplus material: (1) Pipes up to 125 mm dia for depths:				
B.26		Up to 1,5 m	m	105		
B.27		Over 1,5 m up to 2,5 m	m	10		
		(2) Pipes over 125 mm dia up to 400 mm dia for depths:				
B.28		Up to 1,5 m	m	120		
B.29		Over 1,5 m up to 2,5 m	m	15		
	PSDB 8.3.2	(b) Extra over item (a) above for:				
B.30		(1) Intermediate excavation	m³	10		
B.31		(2) Hard rock excavation	m³	1		
		(3) Hand excavation and backfill where directed by the Employer's Agent				
B.32		(a) Soft material	m³	20		
B.33		(b) Intermediate material	m³	5		
B.34		(4) Backfill stabilized with 5% cement where directed by the Engineer	m³	5		
B.35		(6) Mass concrete Class 15 MPa/19mm encasing around pipes where directed by the Engineer	m³	5		
B.36		(8) Backfill with clean sand compacted to 100% modified AASHTO density	m³	5		
B.37		(9) Boulder excavation	m³	5		
TOTAL CARRIED FORWARD						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.38		(10) Excavate in all materials for stormwater inlet and outlet structures and for manholes, catchpits, valve chambers and the like irrespective of depth and backfill around structures	m³	5		
B.39	PSDB 8.3.2	(11) Excavate open drains in all materials	m³	10		
B.40	8.3.2	(c) Excavate and dispose of unsuitable material from trench bottom	m³	10		
	PSDB 8.3.3	Excavation ancillaries:				
	8.3.3.1	Make up deficiency in backfill material:				
B.41		(c) by importation from commercial or off site sources selected by the Contractor (sand compacted to 100% Mod AASHTO)	m³	10		
	PSDB 8.3.5	Existing services that intersect or adjoin a pipe trench:				
		(a) Services that intersect a pipe trench:				
B.42		(1) LT electricity cables	No	1		
B.43		(2) HT electricity cables	No	1		
B.44		(3) Telkom	No	1		
B.45		(4) Watermains	No	3		
B.46		(5) Stormwater	No	1		
		(b) Services that adjoin a trench:				
B.47		(2) HT electrical cables	m	10		
B.48		(3) Watermains	m	20		
	PSDB 8.3.6	Finishing:				
	PSDB 8.3.6.1	Reinstate road surfaces complete with all courses:				
B.49		(c) Gravel roads	m²	25		
	PSDB 8.3.8	Removal of existing pipes:				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.50		(a) Excavate in all materials to 300mm above the pipelines	m³	5		
B.51		(b) Hand excavation for removal by hand to expose pipes	m	5		
B.52		(c) Remove pipes from trench and stack for inspection	m	20		
		(d) Deliver pipes and specials declared re-usable:				
B.53		(i) Pipes	m	10		
B.54		(ii) Specials	No	2		
		(e) Dispose of pipes and specials unsuitable for re-use				
B.55		(i) Pipes	m	10		
B.56		(ii) Specials	No	2		
B.57		(f) Backfill and compact trench	m³	2		
B.58		(g) Make up deficiency in backfill material	m³	1		
B.59	PSDB 8.3.16	Compaction of trench invert in situ material to a depth of 300mm	m³	10		
	PSDB 8.3.17	Testing of trench related work				
		Insitu material at trench invert. (Test up to 1,5m below invert)				
B.60		1) DCP test by Contractor	No	5		
B.61		2) DCP test by Independent laboratory	No	2		
		Bedding layer				
B.62		1) DCP test by Contractor	No	5		
B.63		2) DCP test by Independent laboratory	No	2		
B.64		3) Troxler test by independent laboratory	No	2		
B.65		4) Material classification analysis including CBR and grading analysis	No	2		
		Backfill of trenchess				
TOTAL CARRIED FORWARD						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.66		1) DCP test by Contractor	No	5		
B.67		2) DCP test by Independent laboratory	No	2		
B.68		3) Troxler test by independent laboratory	No	2		
TOTAL CARRIED FORWARD TO SUMMARY						

CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		RESERVOIR				
	SABS 1200 G	**CONCRETE (STRUCTURAL)**				
		as specified in SABS 1200 G and in the project specifications				
	8.2	FORMWORK				
	8.2.1	Rough (below ground):				
B.69		Column foundations straight	m²	5		
B.70		Scour and outlet foundations	m²	10		
	8.2.2	Smooth:				
B.71		Wall foundations curved	m²	25		
B.72		Vertical curved internal and external walls	m²	450		
B.73		Roof slab edge curved and straight	m²	15		
B.74		Soffit of roof slab (Prop height up to 6m)	m²	150		
B.75		Circular column and conical column top	m²	25		
B.76	8.2.5	Narrow widths up to 25 mm wide	m	60		
	8.2.6	Box out holes/form voids:				
		(a) Small, circular, of diameter up to and including 0,35 m:				
B.77		(1) 0 m to 0,5 m deep	No	4		
	8.3	REINFORCEMENT				
	PSG 8.3.1	Mild steel bars:				
B.78		Irrespective of diameter	t	5		
	PSG 8.3.1	High tenstile steel bars				
B.79		Irrespective of diameter	t	25		
	PSG 8.3.2	High-tensile welded mesh:				
B.80		Type reference 617 in m standard sheets	m²	230		
B.81		Type reference 617 in non-standard sheets	m²	25		
TOTAL CARRIED FORWARD						

CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.82		Type reference 395 in standard sheets	m²	25		
	8.4	CONCRETE				
	8.4.2	Blinding layer in 20MPa/20 mm concrete:				
		50 mm minimum thickness:				
	8.4.3	Strength concrete :				
		20 MPa/19 mm:				
B.83		Mass concrete to anchor scour pipe	m³	1		
B.84		Mass concrete to anchor outlet pipes	m³	1		
B.85		Additional mass concrete under foundation (on instruction of Engineer only)	m³	5		
		30MPa/20 mm with Xypex admix C-500 NF min 3kg/m³ as per notes on drawings:				
B.86		Reservoir wall and column foundations	m³	35		
B.87		Reservoir walls	m³	70		
B.88		Reservoir columns	m³	5		
B.89		Roof slab and access opening	m³	45		
B.90		Reservoir floor slab	m³	30		
	8.4.4	Unformed surface finishes:				
		(a) Wood-floated finish (see PSG 7.1)				
B.91		On outside of wall foundations	m²	25		
B.92		(b) Steel-floated finish (see PSG 7.2):	m²			
B.93		On roof slab	m²	210		
B.94		On reservoir floor	m²	150		
B.95		Top of vertical walls	m²	15		
	PSG 8.5	JOINTS				
		Construction joints: (See PSG 5.5.7)				
TOTAL CARRIED FORWARD						

CONCRETE (STRUCTURAL)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.96		Supply and install 250mm PVC waterstop with centre bulbs at construction joints in walls	m	160		
		Expansion joints:				
B.97		Between floor and wall foundation (curved) see dwg no. 24073-SB-100	m	60		
B.98		Between floor slabs of reservoir (straight) see dwg no. 24073-SB-100	m	110		
B.99		Supply and install two (2) layers of malthoid or similar material between roof slab and top of wall	m	50		
	8.8	HD BOLTS AND MISCELLANEOUS METAL WORK				
B.100		Supply and install cast iron manhole cover and frame (SABS 558 type 9E) complete with lock and locking mechanism as shown on drawing no. 24073-SB-101	No	1		
B.101		Air vents cast into top slab as shown on ddrawing no. 24073-SB-100	No	5		
	PSG 8.10	Testing for watertightness:				
B.102		Test reservoir for water tightness	Sum	1		
	PSG 8.17	Cast in of pipes with or without puddle flanges:				
		(a) Up to 300 mm nominal bore:				
B.103		(i) Through (description and thickness of structure elements)	No	2		
B.104	PSG 8.25	Supply 18/16 glass fibre mesh bolted between two flanges at air vents as shown on drawing no. 24073-SB-101	No	5		
B.105	PSG 8.26	Stone on reservoir roof slab	m^3	30		
B.106	PSG 8.28	Supply and install Polyethylene bond breaker under floor	m^2	230		
B.107	PSG 8.29	Coping around reservoir top slab	m	55		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 H : STRUCTURAL STEELWORK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 H	**STRUCTURAL STEELWORK** as specified in SABS 1200 H and in the project specifications				
	8.3.8	Ladders, complete and installed				
B.108		Internal ladder as shown on drawing no. 24073-SB-101	No	1		
B.109		External ladder as shown on drawing no. 24073-SB-101	No	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 L	**MEDIUM PRESSURE PIPELINES**				
		PVC-U PIPES				
		as specified in SABS 1200 L and in the project specifications				
	PSL 8.2.1	Supply, lay and bed on bedding for flexible pipes, complete with couplings:				
		HDPE PE 100 PN 12.5 pipes continuously butt welded SANS ISO 4427:1996 with the following diameters of pipe:				
B.110		i) 25mm dia	m	60		
		PVC-U Class/PN16 (SANS 966 : PART 1:2000 (PVC-U)) using spigot and socket rubber ring joints				
B.111		110 mm dia	m	60		
B.112		160 mm dia	m	90		
B.113		200 mm dia	m	50		
	PSL 8.2.2	Extra over item 8.2.1 for the supplying, laying and bedding of Ductile iron (including Plascoat PPA 571 HES coating) specials with a spigot and socket rubber ring joints complete with couplings for PVC-U pipes).				
		11,25 degree bends				
B.114		160 mm dia	No	1		
		22,5 degree bends				
B.115		160 mm dia	No	2		
		45 degree bends				
B.116		110 mm dia	No	2		
B.117		160 mm dia	No	18		
		90 degree bends				
B.118		110 mm dia	No	6		
B.119		160 mm dia	No	8		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.120		200 mm dia Extra over item 8.2.1 for the supplying, laying and bedding of Ductile iron (including Plascoat PPA 571 HES coating) specials with a spigot and socket rubber ring joints complete with couplings for PVC-U pipes). Tees : (Ductile iron socketed all ends)	No	3		
B.121		110 mm dia	No	5		
B.122		160 mm dia	No	1		
B.123		200 mm dia Extra over item 8.2.1 for Klamflex Black dedicated flange adaptors, flange drilling to table 1600/3 or similar approved	No	5		
B.124		110 mm dia	No	4		
B.125		160 mm dia	No	6		
B.126		200 mm dia	No	4		
	8.2.3	Extra over items 8.2.1 for supplying, fixing and bedding of gate valves: Flanged gate valves				
B.127		110 mm dia	No	2		
B.128		160 mm dia	No	3		
B.129		200 mm dia	No	2		
	8.2.5	Supply and place Pipes, Valves and Specials (Short piperuns)				
B.130		Reservoir Pipework as per drawing 24073-SB-100	No			
B.131		Item no. 1: 430mm long, 150mm dia Mild Steel Carboguard 891 coated pipe welded one end	No	1		
B.132		Item no. 2 : 150mm dia Mild Steel Carboguard 891 coated 90 degree bend, welded on both ends	No	2		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.133		Item no. 3: 1600mm long, 150mm dia Mild Steel Carboguard 891 coated pipe welded on one end and flanged on the other end	No	2		
B.134		Item no. 4 : 150mm dia Long Barrel VJ Flange Adaptor, PN10 to suit steel pipes	No	2		
B.135		Item no. 5: 430mm long, 150mm dia Mild Steel Carboguard 891 coated pipe welded on one end Reservoir Pipework as per drawing 24073-SB-101	No	1		
B.136		Item no. 1: 150mm dia, 900mm long Mild Steel Carboguard 891 coated puddle pipe flanged all ends	No	1		
B.137		Item no. 2: 150mm dia Mild Steel Carboguard 891 coated 90 degree bend, flanged on both ends	No	3		
B.138		Item no. 3: 2020mm long, 150mm dia Mild Steel Carboguard 891 coated flanged on both ends	No	1		
B.139		Item no. 4: 150mm dia Long Barrel Flange Adaptor, PN10 to suit steel pipes	No	2		
B.140		Item no. 5: 750mm long, 150mm dia Mild Steel Carboguard 891 coated puddle pipe flanged both ends	No	1		
B.141		Item no. 6: 1500mm long, 150mm dia Mild Steel Carboguard 891 coated pipe flanged on one end Conservancy Tank Pipework as per drawing 24073-CB-003-101	No	1		
B.142		Item 1: 150mm dia S/S 316 S-Bend 1725mm high and 450mm on bends ends flanged one end	No	1		
B.143		Item 2: 150mm dia VJ flange adaptor PN10 to suit steel pipe	No	3		
B.144		Item 3: 150mm dia flanged gate valve PN10 AVK or similar approved	No	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.145		Item 4: 150mm dia 90° bend S/S 316 flanged both ends	No	1		
B.146		Item no 5: 150mm dia galvanised male perrot coupling flanged one end Water Meter Chamber as per drawing 24073-CB-004-100	No	1		
B.147		Item 1: 150mm dia Long Barrel Flange Adaptor, PN10 to suit PVC-U pipes	No	4		
B.148		Item 2: 150mm dia resilient seated, PN10 flanged gate valve	No	4		
B.149		Item no. 3: 150 x 100mm dia flanged S/S 316 reducer	No	4		
B.150		Item no. 4: 100mm dia, 880mm long S/S 316 puddle pipe flanged all ends	No	4		
B.151		Item no. 5: 100mm dia Y-Strainer, PN10	No	2		
B.152		Item no. 6: 150mm dia flanged S/S 316 reducer	No	4		
B.153		Item no. 7: 125mm dia 375mm long spool piece with reducing tee, flanged pressure measurement equipment as per detail 5	No	2		
B.154		Item no. 8: 125mm dia flanged water meter	No	2		
B.155		Item no. 9: 125mm dia, 250mm long pipe flanged both ends	No	2		
B.156		Item no. 10: 100mm dia flanged swing check valve	No	2		
B.157		Item no. 11: 100mm dia long barrel flange adaptor, PN10 to suit steel pipes	No	2		
B.158		Item no. 12: 100mm dia 880mm long S/S 316 puddle pipe flanged one end	No	2		
B.159		Item no. 13: 650mm dia Smart locking logic SMC cover & frame Scour chamber as per drawing 24073-CB-005-01	No	2		
B.160		Item no. 1: 150mm dia resilient sealed, PN10, flanged gate valve	No	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.161		Item no. 2: 150mm dia 22.5° bend S/S 316 flanged one end only	No	1		
	PSL 8.2.11	Anchor blocks / thrust blocks and pedestals:				
		Concrete:				
B.162		Class 25MPa/19mm	m³	5		
		Formwork:				
B.163		Rough	m²	10		
		Reinforcement:				
B.164		High tensile steel	t	0.10		
	8.2.12	Concrete casing:				
B.165		Class 20MPa/19mm	m³	5		
	8.2.13	Valve and hydrant chambers, etc.:				
B.166		Valve chamber as per Dwg. No. 24073-CB-004-100 (Pipework measured elsewhere)	No	7		
B.167		Bulk water meter chamber complete as per Dwg. No. 24073-CB-004-100 (Pipework measured elsewhere)	No	2		
B.168		Scour chamber complete as per drawing 24073-CB-005-101 (pipe work measured elsewhere)	No	1		
B.169	PSL 8.2.15	Special wrapping in corrosive soil	m	75		
	PSL 8.2.17	Marker blocks/pipeline route markers:				
B.170		(a) Supply and install pipeline route marker as per drawing no. 24073-CB-004-102	No	40		
	PSL 8.2.18	Connection to existing main supply pipe:				
B.171		160mm dia	No	3		
	PSL 8.2.24	Supply, lay, joint, fix and test pipeline and install in sleeve				
B.172		160 mm dia pipe in 300 mm dia sleeve	m	20		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LB : BEDDING (PIPES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LB	**BEDDING (PIPES)** as specified in SABS 1200 LB and in the project specifications				
	8.2.2.3	From commercial sources:				
B.173		(a) Selected granular material	m³	55		
B.174		(b) Selected fill material	m³	40		
	PSLB 8.2.7	Provision of stone/geofabric to deal with water:				
B.175		19mm crushed stone	m³	5		
B.176		Geofabric (A2 or similar approved)	m²	50		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LC : CABLE DUCTS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LC	**CABLE DUCTS** as specified in SABS 1200 LC and in the project specifications				
	8.2.2	Excavation:				
B.177		(a) Excavate in all materials for trenches, backfill, compact, and dispose of surplus material	m	50		
		(b) Extra over item (a) above for:				
B.178		(1) Intermediate excavation	m^3	5		
B.179		(c) Excavate unsuitable mateial from trench bottom and dispose of it	m^3	1		
	PSLC 8.2.5	Supply, lay, bed and prove duct: PVC-U Class 34 heavy duty complying with SANS 791 using spigot and socket rubber ring joints				
B.180		50mm dia	m	25		
B.181		110mm dia	m	25		
B.182	8.2.6	Imported bedding material, where ordered (G7 clean sand compacted to 100% MDD)	m^3	2		
	8.2.8	Cable markers:				
B.183		(a) Route markers	No	5		
B.184	PSLC 8.2.10	Joining new duct to existing duct	No	2		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LD : SEWERS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LD	**SEWERS** as specified in SABS 1200 LD and in the project specifications				
B.185	8.2.5	Conservancy tank including smaller chamber for perrot connection complete as per drawing no. 24073-CB-003-101 (pipework measured elsewhere)	No	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LE : DRAINAGE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LE	**DRAINAGE** as specified in SABS 1200 LE and in the project specifications				
	8.2.1	Supply and lay concrete pipe culverts on class C bedding (spigot and socket / ogee): RC Class 100 D pipes:				
B.186		300mm dia	m	20		
B.187	8.2.7	Supply and install scour pipe outlet structure complete as shown on drawing no. 24073-CB-005-100	No	2		
B.188	PSLE 8.2.23	Supply and install subsurface drains complete	m	60		
B.190	PSLB 8.2.35	Connect subsurface drain to manhole or catchpit	No	4		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 ME : SUBBASE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 ME	**SUBBASE** as specified in SABS 1200 ME and in the project specifications				
	PSME 8.3.3	Construct the subbase course/shoulders/gravel wearing course with material from commercial sources:				
B.191		Construct the G5 subbase course 150mm thick compacted to 96% MDD with material from commercial sources	m³	15		
	8.3.5	Process subbase material by one of the following processes, as relevant and use in the subbase:				
B.192		d) Stabilization	m³	15		
	8.3.8	Stabilization agent:				
B.193		b) CEM 1 Portland cement 32.5N	t	10		
	PSME 8.3.11	Treatment of subbase with:				
B.194		(a) Weed killer	m²	95		
B.195		(b) Insecticide	m²	95		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 MF : BASE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 MF	**BASE** as specified in SABS 1200 MF and in the project specifications				
B.196	PSMF 8.3.3	Construct G4 base 150mm thick with material from commercial sources and compact to 95% MDD	m^3	15		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 MJ : SEGMENTED PAVING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 MJ	**SEGMENTED PAVING** as specified in SABS 1200 MJ and in the project specifications and in accordance with SANS 1058				
	PSMJ 8.2.1	Provision of edge restraints: Flat restraints				
B.197		Radius 0 - 10m	m	10		
B.198		Straight	m	45		
	PSMJ 8.2.2	Construction of paving complete: Interlocking units with herringbone pattern				
B.199		80mm thick Class 40/2.6	m²	90		
B.200	PSMJ 8.2.3	Cutting units to fit edge restraints	m	55		
B.201	8.2.4	Rolling to locked up condition as specified in 5.6.2	m²	90		
TOTAL CARRIED FORWARD TO SUMMARY						

as specified in SABS 1200 MJ and in the project specifications

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 MK	**KERBING AND CHANNELLING**				
		as specified in SABS 1200 MK and in the project specifications				
	PSMK 8.2.1	Precast concrete kerbing:				
		Edging E1:				
B.202		Radius up to 4m	m	5		
B.203		Radius over 4m up to 20m	m	5		
B.204		Radius over 20m and straight sections	m	45		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		FENCING as described in Particular Specification PA and in the manufacturer's and suppliers'specification (Note to tenderers: The Tenderer shall price the Clearvu fencing). The fencing colour shall be black or antracite				
B.205	PA 09.01	Clearvu invisible wall panel fence, 2.4m high fence complete with panels manufactured from 3mm dia steel wire 3.4mm after coating and 3.0m long cochrane columns as per the manufacturer's brochure for Clearvu Fencing	m	170		
B.206	PA 09.01	Anti climb over Cochrane sharktooth topping as per Clearvu specification Gates:	m	170		
B.207	PA 09.01	Clearvu approved 2m x 2m x 2,4m high epoxy coated (black or antracite) bar type swing gates, including 2 number gate posts, standard slider lock.	No	1		
B.208	PA 09.01	Concrete foundation for posts (800mm x 800mm x 800mm, 30 MPa concrete foundations per post) (measured as length of fencing)	m	170		
B.209	PA 09.01	1.4m long Y standard, bitumen coated, installed below ground in center of panel and fixed to anti burrow panel with stainless steel 316 clips	No	85		
B.210	PA 09.01	Soil stabilized with 5% cement backfill	m^3	5		
	PA 09.01	Step in panel height between panels				
B.211		Up to 200mm	No	2		
B.212		Over 200mm up to 400mm	No	1		
B.213	PA 09.02	Anti burrow mesh 600mm deep, cast at least 200mm into the concrete foundations from post to post. Same mesh to be used as the clearview invisible wall as specified above	m	170		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
B.214	PA 09.02	Fixing of anti burrow panel to fencing panel	m	170		
B.215	PA 09.03	Apply weed killer along fence line up to 1m both sides of fence after construction	m	170		
B.216	PA 09.01	Backfill, compact and trim around fence line	m	170		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE B: SUMMARY OF SECTIONS	
SITE CLEARANCE	
EARTHWORKS	
EARTHWORKS (PIPE TRENCHES)	
CONCRETE (STRUCTURAL)	
STRUCTURAL STEELWORK	
MEDIUM PRESSURE PIPELINES	
BEDDING (PIPES)	
CABLE DUCTS	
SEWERS	
DRAINAGE	
SUBBASE	
BASE	
SEGMENTED PAVING	
KERBING AND CHANNELLING	
FENCING	
Total Carried Forward To Summary Of Schedules	

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C.1	SANS1200 G	**CONCRETE (STRUCTURAL**				
		as specified in SANS 1200G and in the project specifications				
	8.2	SCHEDULED FORMWORK ITEMS				
	8.2.1	Rough:				
		Vertical Plane				
C.2		All faces foundations	m²	80		
	8.2.2	Smooth:				
		Horizontal Plane				
C.3		Soffits of mezanine floor slab for tanks including beams (prop height 2.0m)	m²	35		
C.4		Soffits of MCC room top/roof slab (prop height 3.4m)	m²	20		
		Vertical Plane				
C.5		All faces of beams, supporting columns and walls	m²	300		
	8.2.5	Narrow Widths up to 250mm wide				
C.6		25x25mm chamfers	m	565		
	PSG 8.3	SCHEDULED REINFORCEMENT ITEMS				
	PSG 8.3.1	Mild steel bars:				
C.7	8.3.1.1	Irrespective of diameter	t	1.3		
	8.3.1	High tensile steel bars:				
C.8	8.3.1.1	Irrespective of diameter	t	11.7		
	8.3.2	High tensile welded mesh re-inforcement				
C.9		Type ref 395	m²	241		
C.10		Type ref 617	m²	10		
	8.4	SCHEDULED CONCRETE ITEMS				
	8.4.2	Blinding layer in 20MPa/19mm concrete				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.11		75mm minimum thickness	m²	120		
	8.4.3	Strength concrete:				
		20MPa/10mm concrete				
C.12		Screed to building tank slab on exposed sections to outside conditions	m³	5		
		20MPa/19mm concrete				
C.13		Mass concrete where instructed by the engineer	m³	5		
	8.4.3	35MPa/19mm concrete				
C.14		Foundation	m³	50		
C.15		Columns and beams	m³	15		
C.16		Slabs and walls	m³	30		
C.17		Surface beds in WTW	m³	35		
	8.4.4	UNFORMED SURFACE FINISHES				
		Wood-floated finish:				
		Upper surfaces of:				
C.18		MCC room top slab	m²	25		
C.19		Tank slab	m²	35		
C.20		MCC room cable trench	m²	25		
		Steel-floated finish:				
		Upper surfaces of:				
C.21		Columns and beams	m²	7.5		
C.22		Surface bed of WTW	m²	245		
	8.5	JOINTS				
		Expansion joints: (See PSG 5.5.7.4)				
C.23		Supply and install 10mm wide expansion joint between surface bed and walls as shown on drawing 24073-SB-201	m	85		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.24		Construct 16mm wide by 30mm deep saw cut expansion joint in surface bed	m	75		
C.25		Supply and install two (2) layers of malthoid or similar material between MCC slab and wall	m	25		
	PSG 8.7	GROUTING				
	(c)	GROUTING IN OF PIPES, EQUIPMENT AND ITEMS SUPPLIED BY OTHERS				
C.26		Non-shrink grout 40 MPa under portal frames	m^3	4		
C.27		Dry packed grout	m^3	2		
TOTAL CARRIED FORWARD TO SUMMARY						

STRUCTURAL STEELWORK (SUNDRY ITEMS)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SANS1200 HA	**STRUCTURAL STEELWORK (SUNDRY ITEMS)** as specified in SANS 1200HA and in the project specifications				
	PS HA 8.3.1	Structural Steel HDG mild steel trusses, Columns and Beams:				
C.28		Portal Frames and Gable columns: 254 x 146 x 31 I-sections in terms of the Structural Steel Tables published by the South African Institute of Steel	t	3.35		
C.29		Eave beams: 203 x 133 x 25 I-sections in terms of the structural steel tables published by the South African Institute of Steel	t	1.75		
C.30		Haunches: 254 x 146 x 31 cut from I-sections in terms of the Structural Steel Tables published by the South African Institute of Steel	t	1.7		
C.31		End-plates,base plates and stiffeners: Upto 20mm thickness HDG mild steel purlins, girders and bracing	t	0.75		
C.32		Purlins: 150 x 75 x 20 x 3,5 mm Lipped channels in terms of the Structural Steel Tables published by the South African Institute of Steel	t	2.5		
C.33		Cross-bracing: 70 x 70 x 6 L-shape angle irons in terms of the Structural Steel Tables published by the South African Institute of Steel	t	0.80		
C.34	PS HA 8.3.2	HDG mild steel handrail assembly complete with kicker plate and painted with Carboguard carboline 891 or similar approved protective epoxy paint	m	30		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	PART SPEC PB	BUILDING WORK				
	PART SPEC PB	BUILDING WORK				
		Brickwork				
C.35		280mm thick cable trench filled cavity walls with 230mm wide x 2.8mm dia. galvanised brick force every course (on building strip footing to 100mm above ground level), both faces solid clay NFX-E stock brick	m²	15		
C.36		280mm thick external cavity walls with 250mm long x 3.15mm dia. galvanised butterfly ties at a minimum of 5 ties per square meter and 75mm wide x 2.8mm dia. galvanised brick force every fourth course (on top of building foundation walls to roof soffit height), internal face solid clay NFX-E stock brick and external face solid clay FBX-E face brick	m²	200		
C.37		230mm thick internal walls with 150mm long x 3.15mm dia. galvanised butterfly ties at a minimum of 5 ties per square meter and 75mm wide x 2.8mm dia. galvanised brick force every fourth course (on top of pumpstation wetwell top/roof slab to roof soffit height), both faces solid clay NFX-E stock brick	m²	60		
		Air bricks				
C.38		Supply and build in external airbricks as specified	No	10		
		Window Sills				
C.39		Solid clay FBX-E face brick on edge on external wall external side of window including (DPC)	m	10		
		Plaster and Skim work				
C.40		10mm thick to both faces of internal walls of building walls	m²	320		
C.41		3mm thick to internal faces of building gypsum plaster board ceilings	m²	50		
		Floor screed				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.42		Normal screed (25MPa strength)	m³	5		
		Waterproofing				
C.43		Supply and place 375 micron DPC between 280mm thick brick cavity wall and 280 mm thick brick infill cavity foundation wall, stepped one brick down from building floor slab top	m	70		
C.44		Supply and place 375 micron DPC between 230mm thick brick wall and top/roof slab, straight across bricks at building top/roof slab top	m	10		
C.45		Supply and place 375 micron DPC between 280mm thick brick wall and building windows and doors, horizontal and vertical to bricks around frame	m	30		
		Control, Interfacing and Movement Joints				
C.46		Vertical straight control 10mm wide formed v-joint consisting of two off 1.2mm thick x 30mm wide x 600mm long HDG mild steel concertina ties layed in each continious brick skin mortar bed either side of joint in brick work all at every third course and polysulphide sealant installed 105mm deep in brick work cut/formed vertical joint positions	m	155		
		Roof covering				
C.47		Supply and install 0.6mm IBR profile galvanized roof sheeting with a "Global-Duro" or similar approved coating of minimum total DFT of 50 micron (Loerie green colour)	m²	460		
		Rainwater outlets				
C.48		Supply and install and 125mm diameter heavy duty galvanised half-round gutters including galvanised jointing seems, with down pipe connections suitable for 80mm screwed and socketed galvanised downpipes and gutter brackets spaced at a maximum of 600mm	m	50		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.49		Supply and install 80mm diameter heavy duty galvanised screwed and socketed down pipes including galvanised holding brackets spaced at a maximum of 500mm suitable for use with 100mm dia galvanised rainwater outlets	m	25		
C.50		Supply and install 80mm diameter heavy duty galvanised screwed and socketed 45 degree bend suitable for use with 80mm dia. galvanised down pipes	No	4		
		Ceilings				
C.51		Supply and fix gypsum plaster board ceilings on brandering maximum 300mm centre to center spacing along brandering	m²	50		
C.52		Supply and fix 76mm gypsum cove cornice to ceilings and walls	m	45		
		Joinery				
		Supply and install doors:				
C.53		On building internal walls 900mm wide x 2100mm high Iroko solid hardwoord standard single outward opening door, ledged, braced, framed, five lever mortice lock with keys, door stop and stainless steel 100mm heavy duty 4.0mm thick flanged hinges assembly complete	No	2		
C.54		Supply and fix (67mm x 13mm) SA Pine standard Victorian style skirting to walls	m	45		
		Metalwork				
		Supply and install doors:				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.55		On building external wall 900mm wide x 2100mm high solid aluminium standard single outward opening door with dark bronze anodized corrosion protection coating complete, ledged, framed, five lever mortice lock with keys, door stop, stainless steel 100mm heavy duty 4.0mm thick flanged hinges, stainless steel hook latches and internal pushbar quick realese lever assembly complete	No	2		
C.56		On building external brick wall 1800mm wide x 2100mm high HDG mild steel high security outward opening double door with vented louvers lined with vermin proof mesh screens on the inside face and recessed frame with lugs coated with red oxide corrosion protection and painted with a electric orange colour top coat complete and including stainless steel components such as 100mm heavy duty 4.0mm thick flanged hinges, monkey tailed barrel bolt at top of door, barrel bolt at bottom of door, door locking barrel bolt and internal quick realese lever assembly complete	No	1		
C.57		On building external brick wall 3300mm wide x 5000mm high HDG mild steel high security single roller shutter door and frame with with dark bronze colour powder coating complete and including components such as manual push/pull tubular operational head gear and recessed frame with lugs complete and including T-bar weather lip, stainless steel barrel bolt at bottom of door assembly and stainless steel heavy duty beehive rol-lock on frame complete	No	1		
		Supply and install windows:				
C.58		On building internal walls 1800mm wide x 1200mm high double glased fixed pane aluminium window and frame with dark bronze anodized corrosion protection coating complete with weather bar and tinted glass assembly complete.	No	2		
		Security gates on:				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
C.59		Building external brick wall internal face HDG mild steel high security inward opening gate to suite 900mm wide x 2100mm high single door complete with horizontal locking bolt at top and bottom of gate. Gate to be coated with a red oxide corrosion protection and painted with a dark bronze colour top coat	No	2		
		Lintels				
C.60		Supply and install 100mm wide x 75mm deep x 1200mm long pre-stressed reinforced 40MPa concrete lintel in accordance with SANS 10400 K and complaint to SANS 1504 over doors	No	4		
C.61		Supply and install 150mm wide x 75mm deep x 2100mm long pre-stressed reinforced 40MPa concrete lintel in accordance with SANS 10400 K and complaint to SANS 1504 over doors	No	4		
C.62		Supply and install 150mm wide x 75mm deep x 3000mm long pre-stressed reinforced 40MPa concrete lintel in accordance with SANS 10400 K and complaint to SANS 1504 over windows	No	4		
		Painting				
C.63		Paint plastered wall faces of building with one filler coat, one under coat and two final coats of highly washable and stain resistant mid sheen water-based acrylic emulsion paint (antique petal grey colour) including mold and mildew-proof water based pure acrylate additive all suitable for interior	m²	520		
C.64		Paint gypsum plaster board ceilings internal rooms with one primer coat, one under coat and two final coats of highly washable and stain resistant mid sheen water-based acrylic emulsion paint (off-white colour) including mold and mildew-proof water based pure acrylate additive all suitable for interior	m²	50		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
C.65		Paint gypsum cove cornice internal faces of internal rooms with one primer coat, one under coat and two final coats of highly washable and stain resistant mid sheen water-based acrylic emulsion paint (off-white colour) including mold and mildew-proof water based pure acrylate additive all suitable for interior	m²	45		
C.66		Paint all faces of Iroko solid hardwoord standard single door and frame with one primer coat, one under coat and two final coats of highly washable and stain resistant mid sheen water-based enamel paint (off-white colour) all suitable for interior	m²	10		
TOTAL CARRIED FORWARD TO SUMMARY						

BERGRIVIER MUNICIPALITY
CONTRACT NO: T.8.3.35-2025 MN 199/2025
UPGRADING OF THE EENDEKUIL WTW AND NEW 500KL RESERVOIR

SCHEDULE C: SUMMARY OF SECTIONS	
CONCRETE STRUCTURAL STRUCTURAL STEELWORK (SUNDRY ITEMS) BUILDING WORK	
Total Carried Forward To Summary Of Schedules	

SECTION : SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
D.1	SABS 1200 C	**SECTION : SITE CLEARANCE**				
		CLEAR SITE				
	PSC 8.2.1	Clear and grub:				
		Pipeline routes				
D.2		3 m wide	m²	1,800		
D.3	8.2.10	Remove topsoil to nominal depth of 150 mm and stockpile	m³	270		
	PSC 8.2.17	Rip and clear tarred and paved areas				
D.4		Asphalt up to 30mm thick	m²	4,400		
D.5	PSC 8.2.18	Remove kerbs, stockpile, store, maintain and reinstate irrespective of type and length	m²	50		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 DB	**EARTHWORKS (PIPE TRENCHES)**				
		as specified in SABS 1200 DB and in the project specifications				
		PIPELINE TRENCHES				
	PSDB 8.3.2	Excavation:				
		Excavate in all materials for trenches, backfill, compact and dispose of surplus material:				
		(2) Pipes over 125 mm dia up to 400 mm dia for depths:				
D.6		Up to 1,5 m	m	200		
D.7		Over 1,5 m up to 2,5 m	m	1,090		
D.8		Over 2,5 m up to 3,5 m	m	110		
	PSDB 8.3.2	(b) Extra over item (a) above for:				
D.9		(1) Intermediate excavation	m^3	150		
D.10		(2) Hard rock excavation	m^3	5		
		(3) Hand excavation and backfill where directed by the Employer's Agent				
D.11		(a) Soft material	m^3	25		
D.12		(b) Intermediate material	m^3	25		
D.13		(4) Backfill stabilized with 5% cement where directed by the Engineer	m^3	5		
D.14		(6) Mass concrete Class 15 MPa/19mm encasing around pipes where directed by the Engineer	m^3	5		
D.15		(8) Backfill with clean sand compacted to 100% modified AASHTO density	m^3	5		
D.16		(9) Boulder excavation	m^3	5		
	PSDB 8.3.3	Excavation ancillaries:				
	8.3.3.1	Make up deficiency in backfill material:				
TOTAL CARRIED FORWARD						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
D.17		(c) by importation from commercial or off site sources selected by the Contractor (sand compacted to 100% Mod AASHTO)	m³	815		
D.18	PSDB 8.3.3.3	Compaction in road crossings	m³	815		
	PSDB 8.3.5	Particular items:				
		(a) Shore trench opposite structure or service or in restricted work space				
D.19		Over 1.0m up to 2.0m	m	1,090		
D.20		Over 2.0m up to 3.0m	m	110		
	PSDB 8.3.5	Existing services that intersect or adjoin a pipe trench:				
		(a) Services that intersect a pipe trench:				
D.21		(1) LT electricity cables	No	20		
D.22		(2) HT electricity cables	No	5		
D.23		(3) Telkom	No	20		
D.24		(4) Watermains	No	10		
D.25		(5) Stormwater	No	4		
D.26		(6) Sewer	No	1		
		(b) Services that adjoin a trench:				
D.27		(1) Foul sewer	m	5		
D.28		(2) HT electrical cables	m	50		
D.29		(3) Watermains	m	100		
	PSDB 8.3.6	Finishing:				
	8.3.6.1	Reinstate road surfaces complete with all courses:				
D.30		(b) Asphalt Road	m²	4,400		
D.31		(c) Gravel roads	m²	485		
	PSDB 8.3.14	Removal and reinstatement of the following				
TOTAL CARRIED FORWARD						

SECTION 1200 DB : EARTHWORKS (PIPE TRENCHES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
D.32		(a) BK1 kerb and C1 channel	m	10		
D.33	PSDB 8.3.16	Compaction of trench invert in situ material to a depth of 300mm	m³	320		
	PSDB 8.3.17	Testing of trench related work				
		Insitu material at trench invert. (Test up to 1,5m below invert)				
D.34		1) DCP test by Contractor	No	30		
D.35		2) DCP test by Independent laboratory	No	5		
		Bedding layer				
D.36		1) DCP test by Contractor	No	30		
D.37		2) DCP test by Independent laboratory	No	5		
D.38		3) Troxler test by independent laboratory	No	15		
D.39		4) Material classification analysis including CBR and grading analysis	No	5		
		Backfill of trenchess				
D.40		1) DCP test by Contractor	No	30		
D.41		2) DCP test by Independent laboratory	No	5		
D.42		3) Troxler test by independent laboratory	No	15		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LB : BEDDING (PIPES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LB	**BEDDING (PIPES)**				
		as specified in SABS 1200 LB and in the project specifications				
	8.2.2.3	From commercial sources:				
D.43		(a) Selected granular material	m³	340		
D.44		(b) Selected fill material	m³	230		
	PSLB 8.2.7	Provision of stone/geofabric to deal with water:				
D.45		19mm crushed stone	m³	20		
D.46		Geofabric (A2 or similar approved)	m²	200		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1200 LD : SEWERS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	SABS 1200 LD	**SEWERS** as specified in SABS 1200 LD and in the project specifications Supply, lay, joint, bed on bedding for flexible pipes and test pipeline				
	8.2.1	PVC-U Class 34 pipes: (heavy duty) complying with SANS 966 using spigot and socket rubber ring joints				
D.47		160mm dia	m	1,400		
	PSLD 8.2.3	Manholes: Concrete manholes: With concrete cover and slab, depth: With SABS 558 Type 2A cover and frame, depth: (heavy duty)				
D.48		0m - 1,5m	No	2		
D.49		1,5m - 2,5m	No	23		
D.50		2.5m - 3.5m	No	2		
	PSLD 8.2.6	Erf Connections Single connection 5m long for depths:				
D.51		1.5m - 2.5m	No	25		
	PSLD 8.2.11	Connection to existing sewer: Breaking into existing manhole at:				
D.52		Existing sewer PS	No	1		
D.53	PSLD 8.2.13	Dealing with sewage	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE D: SUMMARY OF SECTIONS	
SITE CLEARANCE	
EARTHWORKS (PIPE TRENCHES)	
BEDDING (PIPES)	
SEWERS	
Total Carried Forward To Summary Of Schedules	

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
E.1		**PRELIMINARY AND GENERAL** SCHEDULE NO. 1 GENERAL REQUIREMENTS AND CONDITIONS Allow for all costs and expenses in connection with the following:-				
E.2		Design of the Works and submission of Contractor's Documents	Item	1		
E.3		Chairing and minuting a HAZOP meeting for full scope of works	Item	1		
E.4		Allow for all costs and expenses to conduct a detailed dimensional survey of the existing civil infrastructure prior to finalizing the design of M&E Equipment	Item	1		
E.5		Other General expenses incurred in complying with the requirements of the Contract not included above. (Specify):	Item	1		
E.6		1).....	Item	1		
E.7		2).....	Item	1		
E.8		3).....	Item	1		
E.9		4).....	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		PRESSURE MEDIA FILTERS SCHEDULE NO. 2 Allow for all cost and expenses in connection with the following:				
E.10		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.11		Pressure Filter system complete: Filters 1 - 3	No	3		
E.12		Filter Media complete: Filters 1 - 3	m³	5		
E.13		Filter gravel complete: Filters 1 - 3	m³	3		
E.14		Filter control panel at each filter: Filters 1 - 3	No	3		
E.15		All fasteners, brackets and additional equipment required to complete the above items Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.16		Pressure Filter system complete: Filters 1 - 3	No	3		
E.17		Filter Media complete: Filters 1 - 3	m³	5		
E.18		Filter gravel complete: Filters 1 - 3	m³	2		
E.19		Filter control panel at each filter: Filters 1 - 3	No	3		
E.20		All fasteners, brackets and additional equipment required to complete the above items	Sum	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
		All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):				
E.21		a)	Sum	1		
E.22		b)	Sum	1		
E.23		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		GRAVITY LIMESTONE CONTRACTORS SCHEDULE NO. 3 Allow for all cost and expenses in connection with the following:				
E.24		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.25		Gravity Limestone Contactor system complete: Filters 1 - 4	No	4		
E.26		Limestone Media complete: Filters 1 - 4	m³	14		
E.27		Filter gravel complete: Filters 1 - 4	m³	3		
E.28		Filter media retention baffle for each outlet/wash-out trough: Filters 1 - 4	No	4		
E.29		Filter control panel at each filter: Filters 1 - 4	No	4		
E.30		Galvanized mild steel stairs and elevated walkway with handrails to and from the control room to limestone contactors feed tanks, high enough to provide access to the top of the contactors	Sum	1		
E.31		All fasteners, brackets and additional equipment required to complete the above items Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.32		Gravity Limestone Contactor system complete: Filters 1 - 4	No	4		
E.33		Limestone Media complete: Filters 1 - 4	m³	14		
E.34		Filter gravel complete: Filters 1 - 4	m³	3		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.35		Filter media retention baffle for each outlet/wash-out trough: Filters 1 - 4	No	4		
E.36		Filter control panel at each filter: Filters 1 - 4	No	4		
E.37		Galvanized mild steel galvanized stairs and elevated walkway with handrails to and from the control room to limestone contactors feed tanks, high enough to provide access to the top of the contactors	Sum	1		
E.38		All fasteners, brackets and additional equipment required to complete the above items All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	Sum	1		
E.39		a)	Sum	1		
E.40		b)	Sum	1		
E.41		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		STORAGE TANKS SCHEDULE NO. 4 Allow for all cost and expenses in connection with the following:				
E.42		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.43		1m3 IBC Tank	No	1		
E.44		1000l Heavy Duty LLDPE Plastic Tank complete with connections	No	4		
E.45		10 000l Heavy Duty LLDPE Plastic Tank complete with connections	No	2		
E.46		20 000l Heavy Duty LLDPE Plastic Tank complete with connections	No	11		
E.47		Extra over items above to replace a male Polypropylene connection with a 4" stainless steel 304 connection	No	4		
E.48		EPDM lining (1.14mm) for placement below tanks, cut and placed to suit final arrangement	m²	85		
E.49		All fasteners, brackets and additional equipment to fix tanks to concrete floor Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.50		1m3 IBC Tank	No	1		
E.51		1000l Heavy Duty LLDPE Plastic Tank complete with connections	No	4		
E.52		10 000l Heavy Duty LLDPE Plastic Tank complete with connections	No	2		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.53		20 000l Heavy Duty LLDPE Plastic Tank complete with connections	No	11		
E.54		Extra over items above to replace a male Polypropylene connection with a 4" stainless steel 304 connection	No	4		
E.55		EPDM lining (1.14mm) for placement below tanks, cut and placed to suit final arrangement	m²	85		
E.56		All fasteners, brackets and additional equipment to fix tanks to concrete floor All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	Sum	1		
E.57		a)	Sum	1		
E.58		b)	Sum	1		
E.59		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		PIPE FLOCCULATOR SCHEDULE NO. 5 Allow for all cost and expenses in connection with the following:				
E.60		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.61		Pipe Flocculator system complete	No	1		
E.62		All fasteners, brackets and additional equipment required to complete the above items Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.63		Pipe Flocculator system complete	No	1		
E.64		All fasteners, brackets and additional equipment required to complete the above items All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	Sum	1		
E.65		a)	Sum	1		
E.66		b)	Sum	1		
E.67		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

BACKWASH RECOVERY EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		BACKWASH RECOVERY EQUIPMENT SCHEDULE NO. 6 Allow for all cost and expenses in connection with the following:				
E.68		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.69		Suction hose and Float kit with strainer system complete	No	6		
E.70		All fasteners, brackets and additional equipment required to complete the above items Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.71		Suction hose and Float kit with strainer system complete	No	6		
E.72		All fasteners, brackets and additional equipment required to complete the above items All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	Sum	1		
E.73		a)	Sum	1		
E.74		b)	Sum	1		
E.75		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		CENTRIFUGAL PUMPING EQUIPMENT SCHEDULE NO. 7 Allow for all cost and expenses in connection with the following:				
E.76		Design, submission and approval of drawings including the submission of mixer blade design optimisation calculations and/or test results Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.77		Centrifugal Pumps: Filter Feed pump system complete (KSB or similar approved)	No	2		
E.78		Centrifugal Pumps: Backwash water pump system complete (KSB or similar approved)	No	3		
E.79		Centrifugal Pumps: Backwash recovery pump system complete	No	2		
E.80		Centrifugal Pumps: Service water pump system complete (KSB or similar approved)	No	2		
E.81		Bladder tank for Service Water Pumps Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.82		Centrifugal Pumps: Filter Feed pump system complete (KSB or similar approved)	No	2		
E.83		Centrifugal Pumps: Backwash water pump system complete (KSB or similar approved)	No	3		
E.84		Centrifugal Pumps: Backwash recovery pump system complete	No	2		
TOTAL CARRIED FORWARD						

CENTRIFUGAL PUMPING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.85		Centrifugal Pumps: Service water pump system complete (KSB or similar approved)	No	2		
E.86		Bladder tank for Service Water Pumps	Sum	1		
		All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):				
E.87		a)	Sum	1		
E.88		b)	Sum	1		
E.89		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		BLOWERS SCHEDULE NO. 8 Please note that the items listed below are the minimum specified. The Contractor shall complete the schedule by including all equipment and ancillaries necessary to render the system operational, effective and compliant with the specifications. Allow for all cost and expenses in connection with the following:				
E.90		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	No	1		
E.91		Roots type rotary lobe blowers: Backwash air to pressure filters and limestone contactors system complete:	No	2		
E.92		Steam Trap at blowers	No	1		
E.93		Spares and tools for the Backwash air blowers Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.94		Roots type rotary lobe blowers: Backwash air to pressure filters and limestone contactors system complete:	No	2		
E.95		Steam Trap at blowers	No	1		
E.96		Spares and tools for the Backwash air blowers	Sum	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
		All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):				
E.97		a)	Sum	1		
E.98		b)	Sum	1		
E.99		c)	Sum	1		
E.100		d)	Sum	1		
E.101		e)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		PIPEWORK, FITTINGS AND VALVES SCHEDULE NO. 9 PIPEWORK, FITTINGS AND VALVES Allow for all cost and expenses in connection with the following:				
E.102		Design, submission and approval of drawings	Sum	1		
		Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment: Straight pipe cut to size to make up specials				
E.103		dia. 25 mm PVC-u Class 6	m	22		
E.104		dia. 50 mm SS304	m	100		
E.105		dia. 63 mm PVC-u Class 6	m	55		
E.106		dia. 90 mm PVC-u Class 6	m	50		
E.107		dia. 110 mm PVC-u Class 6	m	170		
E.108		dia. 125 mm PVC-u Class 6	m	25		
E.109		dia. 150 mm SS304	m	25		
E.110		dia. 160 mm PVC-u Class 6	m	180		
E.111		dia. 200 mm PVC-u Class 6	m	120		
E.112		dia. 250 mm PVC-u Class 6	m	10		
E.113		dia. 315 mm PVC-u Class 6	m	15		
E.114		dia. 355 mm PVC-u Class 6	m	3		
		PVC Stub Flange with PVC Backing Ring Flange (SANS 1123 -600/3) - including gluing of flanges onto pipes/fittings				
E.115		dia. 25 mm PVC-u Class 6	No	30		
E.116		dia. 40 mm PVC-u Class 6	No	4		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.117		dia. 63 mm PVC-u Class 6	No	10		
E.118		dia. 90 mm PVC-u Class 6	No	10		
E.119		dia. 110 mm PVC-u Class 6	No	254		
E.120		dia. 125 mm PVC-u Class 6	No	2		
E.121		dia. 160 mm PVC-u Class 6	No	420		
E.122		dia. 200 mm PVC-u Class 6	No	45		
E.123		dia. 250 mm PVC-u Class 6	No	4		
E.124		dia. 315 mm PVC-u Class 6	No	12		
		PVC Solvent Weld Cap				
E.125		dia. 25 mm PVC-u Class 6	No	1		
E.126		dia. 63 mm PVC-u Class 6	No	4		
E.127		dia. 65 mm PVC-u Class 6	No	2		
E.128		dia. 90 mm PVC-u Class 6	No	1		
E.129		dia. 110 mm PVC-u Class 6	No	3		
E.130		dia. 160 mm PVC-u Class 6	No	1		
E.131		dia. 200 mm PVC-u Class 6	No	1		
E.132		dia. 315 mm PVC-u Class 6	No	6		
		Flange Adaptor for PVC Pipes (PN6)				
E.133		dia. 25 mm	No	1		
		Flange Adaptor for PVC Pipes (PN6)				
E.134		dia. 63 mm	No	1		
E.135		dia. 90 mm	No	1		
E.136		dia. 110 mm	No	2		
E.137		dia. 125 mm	No	1		
E.138		dia. 160 mm	No	8		
E.139		dia. 200 mm	No	4		
E.140		dia. 250 mm	No	1		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.141		dia. 315 mm	No	4		
E.142		dia. 355 mm	No	1		
		Flanges (PN6) - including welding of flanges onto pipes/fittings				
E.143		dia. 25 mm SS304	No	2		
E.144		dia. 40 mm SS304	No	2		
E.145		dia. 50 mm SS304	No	50		
E.146		dia. 65 mm SS304	No	2		
E.147		dia. 80 mm SS304	No	2		
E.148		dia. 100 mm SS304	No	5		
E.149		dia. 125 mm SS304	No	1		
E.150		dia. 150 mm SS304	No	8		
E.151		dia. 200 mm SS304	No	1		
		90° Long radius bends as per ASME 16.9 (Flanges or Welding measured elsewhere)				
E.152		dia. 25 mm SS304	No	1		
E.153		dia. 50 mm SS304	No	35		
E.154		dia. 80 mm SS304	No	1		
E.155		dia. 100 mm SS304	No	5		
E.156		dia. 125 mm SS304	No	1		
E.157		dia. 150 mm SS304	No	10		
E.158		dia. 200 mm SS304	No	1		
		90° Short radius bends as per ASME 16.9 (Flanges or Welding measured elsewhere)				
E.159		dia. 25 mm SS304	No	2		
E.160		dia. 50 mm SS304	No	4		
E.161		dia. 80 mm SS304	No	1		
E.162		dia. 100 mm SS304	No	3		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.163		dia. 125 mm SS304	No	1		
E.164		dia. 150 mm SS304	No	8		
E.165		dia. 200 mm SS304	No	20		
		45° medium radius bends - excluding flanges and welding onto other pipes/fittings, but including all welds required to manufacture the bend.				
E.166		dia. 25 mm SS304	No	1		
E.167		dia. 50 mm SS304	No	1		
E.168		dia. 80 mm SS304	No	1		
E.169		dia. 100 mm SS304	No	1		
E.170		dia. 125 mm SS304	No	5		
E.171		dia. 150 mm SS304	No	4		
E.172		dia. 200 mm SS304	No	1		
		45° Lateral (Flanges or Welding measured elsewhere)				
E.173		dia. 25 mm SS304	No	1		
E.174		dia. 50 mm SS304	No	1		
E.175		dia. 80 mm SS304	No	1		
E.176		dia. 100 mm SS304	No	3		
E.177		dia. 125 mm SS304	No	1		
E.178		dia. 150 mm SS304	No	2		
E.179		dia. 200 mm SS304	No	1		
		Tee Pieces including reducing tee measured with BOQ item number denoting larger size (Flanges or welding measured elsewhere)				
E.180		dia. 25 mm SS304	No	1		
E.181		dia. 50 mm SS304	No	4		
E.182		dia. 65 mm SS304	No	1		
E.183		dia. 80 mm SS304	No	1		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.184		dia. 100 mm SS304	No	3		
E.185		dia. 125 mm SS304	No	1		
E.186		dia. 150 mm SS304	No	5		
E.187		dia. 200 mm SS304	No	1		
		Puddle flanges - including welding of flanges onto pipes/fittings				
E.188		dia. 25 mm SS304	No	4		
E.189		dia. 63 mm SS304	No	1		
E.190		dia. 80 mm SS304	No	1		
E.191		dia. 100 mm SS304	No	1		
E.192		dia. 125 mm SS304	No	1		
E.193		dia. 150 mm SS304	No	1		
E.194		dia. 200 mm SS304	No	4		
E.195		dia. 250 mm SS304	No	1		
E.196		dia. 300 mm SS304	No	4		
E.197		dia. 350 mm SS304	No	1		
		PVC-u 90° Bend (class 6) solvent weld				
E.198		dia. 25 mm PVC-u Class 6	No	4		
E.199		dia. 63 mm PVC-u Class 6	No	35		
E.200		dia. 90 mm PVC-u Class 6	No	3		
E.201		dia. 110 mm PVC-u Class 6	No	40		
E.202		dia. 125 mm PVC-u Class 6	No	1		
E.203		dia. 160 mm PVC-u Class 6	No	60		
E.204		dia. 200 mm PVC-u Class 6	No	5		
E.205		dia. 250 mm PVC-u Class 6	No	1		
		PVC-u 90° Elbow (class 6) solvent weld				
E.206		dia. 25 mm PVC-u Class 6	No	5		
E.207		dia. 63 mm PVC-u Class 6	No	33		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.208		dia. 90 mm PVC-u Class 6	No	25		
E.209		dia. 110 mm PVC-u Class 6	No	24		
E.210		dia. 125 mm PVC-u Class 6	No	2		
E.211		dia. 160 mm PVC-u Class 6	No	8		
E.212		dia. 200 mm PVC-u Class 6	No	15		
		PVC-u 45° Elbow (class 6) solvent weld				
E.213		dia. 25 mm PVC-u Class 6	No	1		
E.214		dia. 63 mm PVC-u Class 6	No	1		
E.215		dia. 90 mm PVC-u Class 6	No	1		
E.216		dia. 110 mm PVC-u Class 6	No	1		
E.217		dia. 125 mm PVC-u Class 6	No	5		
E.218		dia. 160 mm PVC-u Class 6	No	4		
E.219		dia. 200 mm PVC-u Class 6	No	1		
E.220		dia. 250 mm PVC-u Class 6	No	1		
E.221		dia. 315 mm PVC-u Class 6	No	2		
E.222		dia. 355 mm PVC-u Class 6	No	2		
		PVC-u 45° Lateral (class 6) solvent weld				
E.223		dia. 25 mm PVC-u Class 6	No	1		
E.224		dia. 63 mm PVC-u Class 6	No	1		
E.225		dia. 90 mm PVC-u Class 6	No	1		
E.226		dia. 110 mm PVC-u Class 6	No	3		
E.227		dia. 125 mm PVC-u Class 6	No	1		
E.228		dia. 160 mm PVC-u Class 6	No	8		
E.229		dia. 200 mm PVC-u Class 6	No	1		
E.230		dia. 250 mm PVC-u Class 6	No	1		
		PVC-u VC T-Piece (class 6) solvent weld				
E.231		dia. 25 mm PVC-uClass 6	No	10		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.232		dia. 63 mm PVC-uClass 6	No	25		
E.233		dia. 90 mm PVC-u Class 6	No	15		
E.234		dia. 110 mm PVC-u Class 6	No	25		
E.235		dia. 125 mm PVC-u Class 6	No	1		
E.236		dia. 160 mm PVC-u Class 6	No	35		
E.237		dia. 200 mm PVC-u Class 6	No	10		
E.238		dia. 250 mm PVC-u Class 6	No	2		
E.239		dia. 315 mm PVC-u Class 6	No	2		
E.240		dia. 355 mm PVC-u Class 6	No	1		
		PVC-u Solvent Weld Reducing Tee (measured with BOQ item number denoting larger size)				
E.241		dia. 110 mm PVC-u Class 6	No	4		
E.242		dia. 160 mm PVC-u Class 6	No	1		
E.243		dia. 200 mm PVC-u Class 6	No	1		
E.244		dia. 250 mm PVC-u Class 6	No	1		
		PVC-u Solvent Weld Reducing Tee (measured with BOQ item number denoting larger size)				
		Flanged rubber bellows				
E.245		dia. 110 mm	No	4		
E.246		dia. 160 mm	No	1		
E.247		dia. 200 mm	No	5		
E.248		dia. 250 mm	No	2		
		PVC-u Solvent Weld Socket				
E.249		dia. 25 mm PVC-u Class 6	No	80		
E.250		dia. 63 mm PVC-u Class 6	No	120		
E.251		dia. 90 mm PVC-u Class 6	No	2		
E.252		dia. 110 mm PVC-u Class 6	No	100		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
E.253		dia. 160 mm PVC-u Class 6	No	150		
E.254		dia. 200 mm PVC-u Class 6	No	80		
E.255		dia. 250 mm PVC-u Class 6	No	2		
		Concentric Reducers to any smaller size (length = largest dia.)				
E.256		dia. 90 mm to any smaller size PVC-u Class 6	No	1		
E.257		dia. 110 mm to any smaller size PVC-u Class 6	No	3		
E.258		dia. 160 mm to any smaller size PVC-u Class 6	No	9		
E.259		dia. 200 mm to any smaller size PVC-u Class 6	No	2		
		Eccentric Reducers to any smaller size (length = largest dia.)				
E.260		dia. 90 mm to any smaller size PVC-u Class 6	No	1		
E.261		dia. 110 mm to any smaller size PVC-u Class 6	No	1		
E.262		dia. 160 mm to any smaller size PVC-u Class 6	No	3		
E.263		dia. 200 mm to any smaller size PVC-u Class 6	No	4		
		Orifice				
E.264		dia. 50 mm to any orifice size SS304	No	2		
E.265		dia. 65 mm to any orifice size SS304	No	4		
E.266		dia. 80 mm to any orifice size SS304	No	1		
E.267		dia. 100 mm to any orifice size SS304	No	2		
E.268		dia. 150 mm to any orifice size SS304	No	5		
E.269		dia. 200 mm to any orifice size SS304	No	25		
		Polypropylene (PP) PN10, SDR17 Straight Cut Lengths				
E.270		dia. 25 mm PP	m	40		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.271		dia. 50 mm PP	m	50		
E.272		dia. 110 mm PP	m	65		
		PP Compression Fitting Plug (SDR 17, PN10)				
E.273		dia. 25 mm PP	No	2		
E.274		dia. 50 mm PP	No	5		
E.275		dia. 110 mm PP	No	22		
		PP Compression Fitting True Union Ball Valve (SDR 17, PN10)				
E.276		dia. 25 mm PP	No	10		
E.277		dia. 50 mm PP	No	15		
E.278		dia. 110 mm PP	No	66		
E.279		dia. 110 mm PP Solenoid Type	No	4		
		PP Compression Fitting Reducing Couplings (SDR 17, PN10)				
E.280		dia. 25 mm PP	No	1		
E.281		dia. 50 mm PP	No	4		
E.282		dia. 110 mm PP	No	5		
		PP Compression Fitting Male Thread Elbow (SDR 17, PN10)				
E.283		dia. 25 mm PP	No	12		
E.284		dia. 50 mm PP	No	10		
E.285		dia. 110 mm PP	No	20		
		PP Compression Fitting Reducing Couplings (SDR 17, PN10)				
E.286		dia. 50 mm PP	No	2		
E.287		dia. 110 mm PP	No	6		
		PP Compression Fitting Male Thread 90deg Elbow (SDR 17, PN10)				
E.288		dia. 25 mm PP	No	20		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.289		dia. 50 mm PP	No	10		
E.290		dia. 110 mm PP	No	44		
		PP Compression Fitting Male Adaptor (SDR 17, PN10)				
E.291		dia. 25 mm PP	No	4		
E.292		dia. 50 mm PP	No	8		
E.293		dia. 110 mm PP	No	40		
		PP Compression Fitting Flange (SDR 17, PN10)				
E.294		dia. 25 mm PP	No	2		
E.295		dia. 50 mm PP	No	8		
E.296		dia. 110 mm PP	No	22		
		PP Compression Fitting 90 Deg Elbow (SDR 17, PN10)				
E.297		dia. 25 mm PP	No	25		
E.298		dia. 50 mm PP	No	30		
E.299		dia. 110 mm PP	No	44		
		PP Compression Fitting Coupling (SDR 17, PN10)				
E.300		dia. 25 mm PP	No	22		
E.301		dia. 50 mm PP	No	33		
E.302		dia. 110 mm PP	No	55		
		Pressure indicators				
E.303		Pressure indicators including threaded nipple, SS 304 three piece ball valves for isolation and air bleed.	No	8		
		Pipe supports				
E.304		All pipe supports and fixing material for Filter Feed Pumpstation	Sum	1		
E.305		All pipe supports and fixing material for Backwash Pumpstation	Sum	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
E.306		All pipe supports and fixing material for pipework around the pressure filters	Sum	1		
E.307		All pipe supports and fixing material for pipework around the limestone contactors	Sum	1		
E.308		All pipe supports and fixing material for the Backwash Recovery Pumpstation	Sum	1		
		Valves (AVK or similar approved)				
		Wedge Gate Valves (Manual) - PN10				
E.309		DN50	No	1		
E.310		DN100	No	1		
E.311		DN150	No	6		
		Butterfly Valves (Actuated) - PN10				
E.312		DN50	No	24		
E.313		DN100	No	14		
E.314		DN150	No	1		
		Butterfly Valves (Non-Actuated) - PN10				
E.315		DN50	No	14		
E.316		DN100	No	17		
E.317		DN150	No	4		
E.318		DN200	No	9		
		Double-Acting (Air Release & Vacuum Breaker) Air Release Valves - PN10				
E.319		DN50	No	2		
E.320		DN100	No	1		
		Float Valves				
E.321		DN100	No	1		
		Swing Check Valves - PN10				
E.322		DN25	No	2		
E.323		DN50	No	2		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.324		DN100	No	4		
E.325		DN150	No	1		
		Double Door Wafer Check valve - PN10				
E.326		DN25	No	2		
E.327		DN50	No	2		
E.328		DN100	No	4		
E.329		DN150	No	1		
		Ball Valves (Stainless Steel) - Manual				
E.330		DN15	No	47		
E.331		DN25	No	14		
		Ball Valves (Polypropylene) - Manual				
E.332		DN15	No	30		
E.333		DN25	No	2		
E.334		DN50	No	8		
E.335		DN100	No	18		
		Ball Valves (Polypropylene) - Actuated (Quarter Turn)				
E.336		DN15	No	1		
E.337		DN25	No	1		
E.338		DN50	No	2		
E.339		DN100	No	4		
		Pressure Holding Valve Chemical lines (Polypropelene)				
E.340		DN15	No	2		
E.341		DN25	No	1		
		Pressure Sustaining Valves (PN10 - Ductile Iron with fusion-bonded epoxy coating)				
E.342		DN100	No	1		
TOTAL CARRIED FORWARD						

PIPEWORK, FITTINGS AND VALVES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		Non-returne valves chemical lines (Polypropelene)				
E.343		DN15	No	2		
E.344		DN25	No	2		
		Pressure Relief Valves for chemical lines (Polypropelene)				
E.345		DN15	No	4		
E.346		DN25	No	1		
		Pressure Relief Valves Blowers (SS)				
E.347		DN15	No	1		
E.348		DN25	No	2		
		Foot Valves in Chemical tanks				
E.349		DN15	No	2		
E.350		DN25	No	1		
		Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:				
E.351		All items under Section 9.2	Sum	1		
		Fire Protection Equipment				
E.352		Supply and install Standard Type Fire Hose Reel with a wall-mounted bracket, hose guide, nozzle, pressure guage and 30m hose. Fire hose real to be SABS approved according to SANS 543 and SANS 1086.	No.	1		
E.353		Supply and install 4.5kg DCP Fire Extinguishers to conform to the minimum fire ratings as specified in SANS 1910:2009. Including wooden backing and signage.	No.	4		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
		All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):				
E.354		a)	Sum	1		
E.355		b)	Sum	1		
E.356		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		INSTRUMENTATION SCHEDULE NO. 10 Note that rates for instrumentation shall include sensors, transmitters, programming and calibration. Allow for all cost and expenses in connection with the following:				
E.357		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment: Magnetic Flow meters:	Sum	1		
E.358		DN25 - Picomag or equivalent	No	1		
E.359		DN50	No	1		
E.360		DN100	No	1		
E.361		DN150	No	4		
E.362		DN200 Radar level sensors:	No	1		
E.363		20-LE-01with sensing range of 0 to 5 meters Ultrasonic level sensors:	No	1		
E.364		60-LE-01, 140-LE-01, 140-LE-02 Float Switches	No	2		
E.365		120-LS-01, 120-LS-02, 120-LS-03, 120-LS-04, 120-LS-05, 120-LS-06	No	6		
E.366		90-LS-01, 21-LS-01 Turbidity Meters	No	2		
E.367		50-AE-01, 50-AE-02, 140-AE-01 Chlorine Residual Analyser	No	3		
E.368		90-AE-01	No	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		pH Analyser				
E.369		140-AIT-02	No	2		
		Pressure transmitters (Including pressure indicators pipework 304L and 304L three piece ball valves for isolation and air bleed):				
E.370		20-PIT-01, 60-PIT-01, 60-PIT-02	No	3		
		Pressure Gauges (Including pressure indicators pipework 304L and 304L three piece ball valves for isolation and air bleed):				
E.371		Pressure Gauges	No	30		
		Limit switches:				
E.372		Metal Position limit switch with stainless steel rod actuator with mounting bracket for fitment to non return valve swing arm	No	8		
		Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:				
		Magnetic Flow meters:				
E.373		DN25 - Picomag or equivalent	No	1		
E.374		DN100	No	3		
		Radar level sensors:				
E.375		20-LE-01	No	1		
		Ultrasonic level sensors:				
E.376		60-LE-01, 140-LE-01, 140-LE-02	No	2		
		Float Switches				
E.377		120-LS-01, 120-LS-02, 120-LS-03, 120-LS-04, 120-LS-05, 120-LS-06	No	6		
E.378		90-LS-01, 21-LS-01	No	2		
		Turbidity Meters				
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.379		50-AE-01, 140-AE-01, Chlorine Residual Analyser	No	3		
E.380		90-AE-01 pH Analyzer	No	1		
E.381		140-AIT-02 Pressure transmitters (Including pressure indicators pipework 304L and 304L three piece ball valves for isolation and air bleed):	No			
E.382		20-PIT-01, 60-PIT-01, 60-PIT-02 Pressure Gauges (Including pressure indicators pipework 304L and 304L three piece ball valves for isolation and air bleed):	No	3		
E.383		Pressure Gauges Limit switches:	No	30		
E.384		Metal Position limit switch with stainless steel rod actuator with mounting bracket for fitment to non return valve swing arm All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	No	8		
E.385		a)	Sum	1		
E.386		b)	Sum	1		
E.387		c)	Sum	1		
E.388		d)	Sum	1		
E.389		e)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		CHEMICAL DOSING EQUIPMENT SCHEDULE NO. 11 Allow for all cost and expenses in connection with the following:				
E.390		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.391		1000 litre chemical dosing day tanks	No	2		
E.392		Coagulant Dosing Pumps including dosing pipework and valves	No	2		
E.393		Sodium Hypochlorite Dosing Pumps, including dosing pipework and valves	No	2		
E.394		Enclosed dosing skid with sliding doors mounted to wall.	No	2		
E.395		Safety Shower complete Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	No	1		
E.396		1000 litre chemical dosing day tanks	No	2		
E.397		Coagulant Dosing Pumps including dosing pipework and valves	No	2		
E.398		Sodium Hypochlorite Dosing Pumps, including dosing pipework and valves	No	2		
E.399		Enclosed dosing skid with sliding doors mounted to wall.	No	2		
E.400		Safety Shower complete	No	1		
TOTAL CARRIED FORWARD						

CHEMICAL DOSING EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
		All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):				
E.401		a)	Sum	1		
E.402		b)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		LIFTING EQUIPMENT SCHEDULE NO. 12 Allow for all cost and expenses in connection with the following:				
E.403		Design, submission and approval of drawings Allow for all costs and expenses in connection with the design, manufacture, quality management, painting, testing, supply, delivery, offloading and storage of the following materials and equipment:	Sum	1		
E.404		Crawl beam and manual block and tackle system complete	No	6		
E.405		All fasteners, brackets and additional equipment required to complete the above items Allow for all cost and expenses in connection with the Site Installation, Testing, Commissioning and upholding during the Trial Operation Period and Defects Notification Period of the following:	Sum	1		
E.406		Crawl beam and manual block and tackle system complete	No	6		
E.407		All fasteners, brackets and additional equipment required to complete the above items All other items not included above but which are nevertheless necessary to meet the Scope of Work and/or are required for the proper, safe and effective operation of the plant. (Specify):	Sum	1		
E.408		a)	Sum	1		
E.409		b)	Sum	1		
E.410		c)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		SUNDRIES SCHEDULE NO. 15 Allow for all costs and expenses in connection with the following for the Contract:-				
E.411		Providing "as built" drawings in the latest AutoCAD version as well as 3 additional hard copies.	Item	1		
E.412		Providing 2 draft copies of the Installation, Operation and Maintenance Manual prior to commissioning of the Works.	Item	1		
E.413		Providing 6 final copies of the Installation, Operation and Maintenance Manual prior to the issue of the Taking -Over Certificate.	Item	1		
E.414		Operating Instructions and Signage, as specified.	Item	1		
E.415		Inspection, Tests, etc. of all equipment outside the Cape Metropolitan area.	Item	1		
E.416		Provision of all Test Certificates and Certificate of Compliance in terms of the Code of Practice for Wiring of Premises.	Item	1		
E.417		Checking, starting up, testing and commissioning of the complete Works.	Item	1		
E.418		Operational Acceptance Testing of the complete works as well as recording the test result and presenting it to the Engineer for approval.	Item	1		
E.419		Operational and Maintenance Training (allow for 3 full days).	Item	1		
E.420		Trial Operation Period Obligations.	Item	1		
E.421		Maintaining the Works during the Defects Notification Period.	Item	1		
E.422		Maintenance inspection every 3, 6, 9 and 12 months after take over. Provide a short report to Engineer.	Item	1		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
E.423		Provision of a Treatment plant nameboard at the entrance of the Works	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE E: SUMMARY OF SECTIONS	
GENERAL	
PRESSURE MEDIA FILTERS	
GRAVITY LIMESTONE CONTRACTORS	
STORAGE TANKS	
PIPE FLOCCULATOR	
BACKWASH RECOVERY EQUIPMENT	
CENTRIGUGAL PUMPING EQUIPMENT	
BLOWERS	
PIPEWORK, FITTINGS AND VALVES	
INSTRUMENTATION	
CHEMICAL DOSING EQUIPMENT	
LIFTING EQUIPMENT	
SUNDRIES	
Total Carried Forward To Summary Of Schedules	

ANNEXURE B: WATER TARIFFS

TARIEWE / TARRIFS

	Tariewe van toepassing met ingang van eerste rekening wat gelewer word na 1 Julie tensy anders aangedui.	Tarief vanaf 1 Julie 2024 (Ingesluit 15% BTW) Tariff from 1 July 2024 (Including VAT)	Tarief vanaf 1 Julie 2024 (Uitgesluit 15% BTW) Tariff from 1 July 2024 (Excluding VAT)	15% BTW 15% VAT		Tarief vanaf 1 Julie 2025 (Ingesluit 15% BTW) Tariff from 1 July 2025 (Including VAT)	Tarief vanaf 1 Julie 2025 (Uitgesluit 15% BTW) Tariff from 1 July 2025 (Excluding VAT)	15% BTW 15% VAT	Rates apply with effect from the first bill delivered after 1 July unless otherwise indicated.
4	**WATER**	6.9%				5.5%			**WATER**
A	**Beskikbaarheidsfooie**								**Availability Fees**
	Water per erf - per jaar	1,237.10	1,075.77	161.33	5.50%	1,305.20	1,134.94	170.26	Water per erf - per year
B	**Basiese Heffing per maand**								**Basic Charge per month**
	Residensieel, insluitend deeltitelskema, woonstelle, geslote ontwikkelinge								**Residential, including sectional title scheme, apartments, gated developments**
	Basiese heffing per erf en/of verbruikspunt per maand waar meerdere selfstandige bewoonbare wooneenhede deur een aansluiting op die netwerk bedien word	81.70	71.04	10.66	26.68%	103.50	90.00	13.50	Basic charge per plot and/or consumption point per month where several independent habitable residential units are served by one connection to the network
	Kommersieel / Nywerheid / Institusioneel								**Commercial / Industrial / Institutional**
	Basiese heffing per erf en/of verbruikspunt per maand vir aansluitings kleiner as 32mm	81.70	71.04	10.66	111.14%	172.50	150.00	22.50	Basic charge per plot and/or consumption point per month for connections smaller than 32mm
	Basiese heffing per erf en/of verbruikspunt per maand vir aansluitings 32mm tot 50mm	244.50	212.61	31.89	5.48%	257.90	224.26	33.64	Basic charge per plot and/or consumption point per month for connections 32mm to 80mm
	Basiese heffing per erf en/of verbruikspunt per maand vir aansluitings groter as 50mm tot 80mm	407.30	354.17	53.13	5.50%	429.70	373.65	56.05	Basic charge per plot and/or consumption point per month for connections bigger than 50mm to 80mm
	Basiese heffing per erf en/of verbruikspunt per maand vir aansluitings groter as 80mm	570.30	495.91	74.39	5.51%	601.70	523.22	78.48	Basic charge per plot and/or consumption point per month for connections bigger than 80mm
C	**Kommersieël: Krediet & Voorafbetaalde**								**Commercial: Conventional & Prepaid**
	0 - 6	10.90	9.48	1.42	50.46%	16.40	14.22	2.18	0 - 6
	7 - 20	26.60	23.12	3.48	5.26%	28.00	24.39	3.61	7 - 20
	21 - 50	28.50	24.81	3.69	5.61%	30.10	26.17	3.93	21 - 50
	51 - 100	31.30	27.25	4.05	5.75%	33.10	28.74	4.36	51 - 100
	101 - 200	32.80	28.53	4.27	5.49%	34.60	30.10	4.50	101 - 200
	201 - 1000	32.80	28.53	4.27	5.49%	34.60	30.10	4.50	201 - 1000
	1000 - 1500	32.80	28.53	4.27	5.49%	34.60	30.10	4.50	1000 - 1500
	1501 - 2000	32.80	28.53	4.27	5.49%	34.60	30.10	4.50	1501 - 2000
	2000 +	32.80	28.53	4.27	5.49%	34.60	30.10	4.50	2000 +
D	**Residential: Krediet & Voorafbetaalde**								**Residential: Conventional & Prepaid**
	0 - 6	10.90	9.48	1.42	-12.84%	9.50	8.30	1.20	0 - 6
	7 - 13	23.10	20.06	3.04	3.90%	24.00	20.87	3.13	7 - 13
	14 - 20	27.40	23.80	3.60	4.01%	28.50	24.76	3.74	14 - 20
	21 - 35	34.10	29.69	4.41	4.11%	35.50	30.88	4.62	21 - 35
	36 - 50	41.40	36.00	5.40	5.56%	43.70	37.98	5.72	36 - 50
	51+	55.20	47.97	7.23	5.43%	58.20	50.61	7.59	51+
F	Flat Rate (Sportklubs : Skole : Welsynsorganisasies : Verbruikers buite voormalige munisipale gebied)								Flat Rate (Sports clubs; Schools; Welfare Organizations; Consumers outside former municipal area)
	0-500	12.20	10.63	1.57	5.74%	12.90	11.21	1.69	**0-500**
	501+	18.00	15.62	2.38	5.56%	19.00	16.48	2.52	**501+**