

HESSEQUA MUNICIPALITY

HES-TECH 09/2122

APPOINTMENT OF AD-HOC CIVIL ENGINEERING CONTRACTORS FOR A PERIOD OF THREE (3) YEARS FROM DATE OF APPOINTMENT

PART C2: PRICING DATA

C2.1 Pricing Instructions

C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES

C2.1.1.1 The Tender Data, the Contract Data, the Scope of the Work and the Site Information are to be read in conjunction with the Bill of Quantities.

a) The Bill of Quantities comprises items covering the Contractor's profit and costs of general liabilities and of construction of temporary and permanent Works.

b) The Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill but his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional works carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the Bill.

c) The measurement and payment clauses of each Specification, read together with the relevant clauses of the Specification Data, set out what ancillary or associated activities are included in the rate for the operations specified.

C2.1.1.2 Descriptions in the Bill are abbreviated and must be read in conjunction with the measurement and payment clauses of the applicable Specifications.

C2.1.1.3 Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

C2.1.1.4 Except that they shall not include Value Added Tax (VAT), the prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices to the Employer for the work described under each item. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described and

shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based. Provision is made in the Summary to the Bill of Quantities for VAT to be added.

- C2.1.1.5 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to have a price or rate of R0,00.
- C2.1.1.6 The Tenderer must price each item.
- C2.1.1.7 CPAF indices (CPI) as published will be utilized will be applied. The latest CPAF indices (CPI) will used as base rate.
- C2.1.1.8 The contract indicates that, in terms of any contract price adjustment clause 6.8.2 state the following, shall apply:
- “The rates and prices stated in the pricing data shall be final and pricing data shall be final and binding throughout the period of the contract, except for specials materials specifically listed in the special materials returnable schedule. This section of the contract data must be read in conjunction with clause 6.8 of the General Conditions of Contract 2015 (3rd Edition).”*
- C2.1.1.9 Each material dealt with as a special material in terms of Clause 4.1 of the Contract Price Adjustment Schedule of the General Conditions of Contract is stated in the list below. The provisions of Clause 6.8.3 of the General Conditions of Contract shall apply to such special materials. The rates and prices for the special materials shall be furnished by the tenderer, which rates and prices shall not include VAT but shall include all other obligatory taxes and levies.
- C2.1.1.10 Line items with the letter “L” for e.g. “**LA1.4.1**”, refers to items that are to be done in terms of LIC (Labour Intensive Construction) and should be priced according to the LIC specifications listed under **PART C3.6: LABOUR INTENSIVE CONSTRUCTION**.
- C2.1.1.11 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	= millimetre	h	=	hour
m	= metre	kg	=	kilogram
km	= kilometre	t	=	ton (1 000 kg)
m ²	= square metre	No.	=	number
m ² .pass	= square metre-pass	sum	=	lumpsum
ha	= hectare	MN	=	MegaNewton
m ³	= cubic metre	MPa	=	MegaPascal
m ³ .km	= cubic metre-kilometre	P C sum	=	Prime Cost sum
ℓ	= litre	Prov sum	=	Provisional sum
kℓ	= kilolitre	%	=	percent
MN.m	= MegaNewton-metre	kW	=	kilowatt

MEASUREMENT AND PAYMENT

The measurement and payment clauses of the SANS 1200 Standardized Specifications and the Standard Specifications as amended or added to in Part C3.2, Specification Data, shall be deemed to form part of and be included in the Pricing Instructions.

ALL RATES IN EVERY LINE AND COLUMN FOR EACH PROJECT TENDERED FOR MUST BE FILLED IN, DEPENDING ON THE TYPE OF CONTRACTOR AND THE RELATED PROJECT AS INDICATED IN THE TABLE BELOW. FAILURE TO DO SO MAY RESULT IN THE TENDERER BEING DISQUALIFIED.

Project Description	Type of Contractor
Project 1: Roads and Stormwater	CE
Project 2: Water	CE
Project 3: Sewer	CE
Project 4: Building Works	GB

Tenderers should price on the pricing schedule as indicated above.

Failure to adhere to the beforementioned will result in your tender being declared non-responsive.

Please note that the all inclusive rate will be used for tender evaluation purposes.

DECLARATION,

I, THE UNDERSIGNED NAME)
CERTIFY THAT THE INFORMATION FURNISHED ABOVE IS CORRECT. I ACCEPT THAT THE
MUNICIPALITY MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

AUTHORISED SIGNATURE:

NAME:

CAPACITY:

DATE:

HESSEQUA MUNICIPALITY

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APPOINTMENT OF AD-HOC CIVIL ENGINEERING CONTRACTORS FOR A PERIOD OF THREE (3) YEARS

C2.2: BILL OF QUANTITIES

AS PER SABS 1200 AND COTO STANDARD SPECIFICATIONS (ROADS AND BRIDGES)

Applicable SANS 1200 Codes:

SANS 1200	A	1986	Section A:	General
SANS 1200	AA	1986	Section AA:	General (small works)
SANS 1200	AB	1986	Section AB:	Engineer's office
SANS 1200	AH	1986	Section AH:	General (structural)
SANS 1200	C	1980	Section C:	Site clearance
SANS 1200	D	1988	Section D:	Earthworks
SANS 1200	DA	1988	Section DA:	Earthworks (small works)
SANS 1200	DB	1989	Section DB:	Earthworks (pipe trenches)
SANS 1200	DK	1996	Section DK:	Gabions and pitching
SANS 1200	DM	1981	Section DM:	Earthworks (roads, subgrade)
SANS 1200	G	1982	Section G:	Concrete (structural)
SANS 1200	GA	1982	Section GA:	Concrete (small works)
SANS 1200	GB	1984	Section GB:	Concrete (ordinary buildings)
SANS 1200	GE	1984	Section GE:	Precast concrete (structural)
SANS 1200	GF	1984	Section GF:	Prestressed concrete
SANS 1200	H	1990	Section H:	Structural steelwork
SANS 1200	HA	1990	Section HA:	Structural steelwork (sundry items)
SANS 1200	HB	1985	Section HB:	Cladding and sheeting
SANS 1200	HC	1988	Section HC:	Corrosion protection of structural steelwork
SANS 1200	HE	1983	Section HE:	Structural aluminium work
SANS 1200	L	1983	Section L:	Medium-pressure pipelines
SANS 1200	LB	1983	Section LB:	Bedding (pipes)
SANS 1200	LC	1981	Section LC:	Cable ducts
SANS 1200	LD	1982	Section LD:	Sewers
SANS 1200	LE	1982	Section LE:	Stormwater drainage
SANS 1200	LF	1983	Section LF:	Erf connections (water)
SANS 1200	LG	1983	Section LG:	Pipe jacking
SANS 1200	M	1996	Section M:	Roads (general)
SANS 1200	ME	1981	Section ME:	Subbase
SANS 1200	MF	1981	Section MF:	Base
SANS 1200	MFL	1996	Section MFL:	Base (light pavement structures)
SANS 1200	MG	1996	Section MG:	Bituminous surface treatment
SANS 1200	MH	1996	Section MH:	Asphalt base and surfacing
SANS 1200	MJ	1984	Section MJ:	Segmented paving
SANS 1200	MK	1983	Section MK:	Kerbing and channelling
SANS 1200	MM	1984	Section MM:	Ancillary roadworks

- The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.
- Various testing is to be carried out according to the applicable SANS codes. The tests will be discussed between the Client and the Contractor, prior to the commencement of construction.

PROJECT 1: ROADS AND STORMWATER

SECTION A					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
	SANS 1200 A	SECTION A : PRELIMINARY AND GENERAL			
A1		Time related items			
A1.1		Health and safety:			
A1.2	8.2.2	General safety obligations	Month		
A1.3	8.2.2	Health and safety plan	Month		
A1.4		Temporary Traffic Control Facilities			
A1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
LA1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
A1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
LA1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
A1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
LA1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
A1.4.4	8.8.2	Short term lane closure	day		
A1.4.5	8.8.2	Short term lane closure	week		
A1.4.6	8.8.2	Short term lane closure	month		
A1.4.7	8.8.2	STOP/RY-GO Traffic Control	day		
A1.4.8	8.8.2	STOP/RY-GO Traffic Control	week		
A1.4.9	8.8.2	STOP/RY-GO Traffic Control	month		
A1.5	8.4.2.2	Facilities for the Contractor			

A1.5.1	8.3.2.2(e)	Ablution Facilities	day		
A1.5.2	8.3.2.2(e)	Ablution Facilities	week		
A1.5.3	8.3.2.2(e)	Ablution Facilities	month		
A1.5.4	8.4.5	Security	day		
A1.5.5	8.4.5	Security	week		
A1.5.6	8.4.5	Security	month		
A1.5.7	8.3.3	Supervision	day		
A1.5.8	8.3.3	Supervision	week		
A1.5.9	8.3.3	Supervision	month		
A2	8.7	Daywork			
A2.1		Labour			
A2.1.1		Unskilled labour	h		
LA2.1.1		Unskilled labour	h		
A2.1.2		Semi-skilled labour	h		
LA2.1.2		Semi-skilled labour	h		
A2.1.3		Skilled labour	h		
LA2.1.3		Skilled labour	h		
A2.2	8.5	Materials			
A2.2.1		Allow for net cost of materials used by Contractor for minor ancillary works	Provisional Sum	50 000,00	
A2.2.2		Percentage adjustment on Item A2.2.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.2.3		Allow for geotechnical testing by an accredited geotechnical laboratory where required by the Client	Provisional Sum	30 000,00	

A2.2.4		Percentage adjustment on Item A2.2.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.3	8.5	Plant			
A2.3.1		Plant used by Contractor for minor ancillary works			
A2.3.1.1		1-ton Bakkie	h		
A2.3.1.2		6m³ Tip Truck	h		
A2.3.1.3		Excavator	h		
A2.3.1.4		Digger / TLB	h		
A2.3.1.5		Truck (10 ton)	h		
A2.3.1.6		LDV	h		
A2.3.1.7		Trailer (2,5 ton)	h		
A2.3.1.8		Water pump	h		
A2.3.1.9		Compressor	h		
A2.3.1.10		Small plant	h		
A2.3.1.11		Asphalt Paver	h		
A2.3.1.12		Overhead charges on items above	%		
A2.4	8.8.5	Cost of Survey			
A2.4.1	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – locate and record	Provisional Sum	20 000,00	
A2.4.2		Percentage adjustment on Item A2.4.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.4.3	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – protect and re-establish	Provisional Sum	20 000,00	
A2.4.4		Percentage adjustment on Item A2.4.3 for Contractor's overheads and profit (State % and extend as an amount)	%		

A2.5		Mentorship			
A2.5.1		Mentorship programs for Sub-Contractors	Provisional Sum	100 000,00	

SECTION B					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION B: SITE CLEARANCE			
B1	SANS 1200 C	Site clearance			
	8.2.1	Clear and grub			
B1.1		Pipelines	m		
LB1.1		Pipelines	m		
B1.2		Remove and grub all trees and tree stumps regardless of the girth	m ²		
	8.22	Remove tree stumps with girth of			
		Over and up to			
B1.2.1		0.5 m 1.0 m	No		
LB1.2.1		0.5 m 1.0 m	No		
B1.3	8.2.12	Remove and re-erect / build existing fences / walls:			
B1.3.1		Devil fork	m		
LB1.3.1		Devil fork	m		
B1.3.2		Wooden fence up to 1.2 m high	m		
LB1.3.2		Wooden fence up to 1.2 m high	m		
B1.3.3		Wooden fence up to 1.8 m high	m		
LB1.3.3		Wooden fence up to 1.8 m high	m		
B1.3.4		Vibracrete wall	m		
LB1.3.4		Vibracrete wall	m		
B1.3.5		Brick wall up to 1.2 m high	m		

LB1.3.5		Brick wall up to 1.2 m high	m		
B1.3.6		Brick wall up to 1.8m high	m		
LB1.3.6		Brick wall up to 1.8m high	m		
B1.3.7		Mesh Fencing up to 1.2m high	m		
LB1.3.7		Mesh Fencing up to 1.2m high	m		
B1.3.8		Mesh Fencing up to 1.8m high	m		
LB1.3.8		Mesh Fencing up to 1.8m high	m		
B1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
LB1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
B1.4.1		Remove grass sods, store and maintain on site	m ²		
LB1.4.1		Remove grass sods, store and maintain on site	m ²		
B1.4.2		Lay grass sods from stockpile	m ²		
LB1.4.2		Lay grass sods from stockpile	m ²		
B1.4.3		Lay grass sods from commercial sources	m ²		
LB1.4.3		Lay grass sods from commercial sources	m ²		
B1.6	8.2.8	Demolish and remove miscellaneous structures:			
B1.6.1		Existing brick underground structure (1mx1mx1m)	No		
LB1.6.1		Existing brick underground structure (1mx1mx1m)	No		
B1.6.2		Existing boundary wall	m		
LB1.6.2		Existing boundary wall	m		
B1.6.3		Existing concrete structures	m ²		

LB1.6.3		Existing concrete structures	m ²		
B1.6.4		Existing precast kerbs	m		
LB1.6.4		Existing precast kerbs	m		
B1.6.5		Existing bitumen surfacing	m ²		
LB1.6.5		Existing bitumen surfacing	m ²		
B1.6.6		Existing concrete channel	m		
LB1.6.6		Existing concrete channel	m		
B1.6.7		Existing stone pitched stormwater channel	m		
LB1.6.7		Existing stone pitched stormwater channel	m		
B1.6.8		Existing pipeline (up to 450mm)	m		
LB1.6.8		Existing pipeline (up to 450mm)	m		
B1.7		Relocate existing wire fence to positions as indicated	m		
LB1.7		Relocate existing wire fence to positions as indicated	m		
B1.8		Lowering of water erf connections within road reserve	No		
LB1.8		Lowering of water erf connections within road reserve	No		
B1.9		Remove existing paving and stockpile on site	m ²		
LB1.9		Remove existing paving and stockpile on site	m ²		
B1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
LB1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
B1.11	8.3.5(a)	EXISTING SERVICES			

		Services that intersect a trench			
B1.11.1		Power / Communication Cables	m		
LB1.11.1		Power / Communication Cables	m		
B1.11.2		Pipelines	m		
LB1.11.2		Pipelines	m		
B1.11.3		Fences	m		
LB1.11.3		Fences	m		
B1.11.4		Kerbs	m		
LB1.11.4		Kerbs	m		
B1.11.5		Walls	m		
LB1.11.5		Walls	m		
B1.11.6		Manholes	No		
LB1.11.6		Manholes	No		
B1.11.7		Formal / informal structure	m		
LB1.11.7		Formal / informal structure	m		
B1.11.8		Poles	No		
LB1.11.8		Poles	No		
	8.3.5 (b)	Services that adjoin a trench:			
B1.11.9		Power / Communication Cables	m		
LB1.11.9		Power / Communication Cables	m		
B1.11.10		Pipelines	m		
LB1.11.10		Pipelines	m		
B1.11.11		Fences	m		

LB1.11.11		Fences	m		
B1.11.12		Kerbs	m		
LB1.11.12		Kerbs	m		
B1.11.13		Walls	m		
LB1.11.13		Walls	m		
B1.11.14		Manholes	No		
LB1.11.14		Manholes	No		
B1.11.15		Formal / informal structures	m		
LB1.11.15		Formal / informal structures	m		
B1.11.16		Poles	No		
LB1.11.16		Poles	No		
	1200 DM	Subgrade			
B2		Treatment of road-bed			
B2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
LB2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
B3		Earthworks			
B3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
LB3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
	SANS 1200 DM				
B3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		
LB3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		

B3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
LB3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
	SANS 1200 DB	Backfill			
B4	8.3.2(a)	Backfill, compact and dispose of surplus material for:			
B4.1		Pipes up to 160 mm dia:			
B4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.2		Pipes over 160mm up to 450 mm dia:			
B4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.3		Pipes over 450mm dia:			
B4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B5	SANS 1200 MK	Kerb and channeling			
B5.1	8.2.1	Precast concrete barrier kerb and channel where radius is:			
		Over and Up to			
B5.1.1		4 m 20 m	m		
LB5.1.1		4 m 20 m	m		

B5.1.2		20 m and straight	m		
LB5.1.2		20 m and straight	m		
B5.2	8.2.2	Precast mountable kerb and channel (CK1 / CK5) where radius is:			
		Over and Up to			
B5.2.1		4 m 20 m	m		
LB5.2.1		4 m 20 m	m		
B5.2.2		20 m and straight	m		
LB5.2.2		20 m and straight	m		
B5.3		Precast edgings	m		
LB5.3		Precast edgings	m		
B5.4		Precast Barrier kerb	m		
LB5.4		Precast Barrier kerb	m		
B5.5		Precast channel	m		
LB5.5		Precast channel	m		
B5.6		Precast mountable kerb (MK10)	m		
LB5.6		Precast mountable kerb (MK10)	m		
B5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
LB5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
B6	SANS 1200 DM	Surface finishes			
B6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		
LB6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		

B6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
LB6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
B6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
LB6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
B6.4		Placing of concrete	m ³		
LB6.4		Placing of concrete	m ³		
B6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
LB6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
B6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
LB6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
B7	1200 DB 8.3.6.1	Reinstatement of road surfaces complete with all courses:			
B7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
LB7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
B7.2		150 mm G9 gravel lower selected layer	m ²		
LB7.2		150 mm G9 gravel lower selected layer	m ²		
B7.3		150 mm G7 gravel upper selected layer	m ²		
LB7.3		150 mm G7 gravel upper selected layer	m ²		
B7.4		150 mm G5 gravel subbase coarse	m ²		
LB7.4		150 mm G5 gravel subbase coarse	m ²		

B7.5		150 mm G4 gravel base coarse	m ²		
LB7.5		150 mm G4 gravel base coarse	m ²		
B7.6		30 mm asphalt	m ²		
LB7.6		30 mm asphalt	m ²		
B7.7		60mm interlocking concrete paver	m ²		
LB7.7		60mm interlocking concrete paver	m ²		
B7.8		60mm bevel concrete paver	m ²		
LB7.8		60mm bevel concrete paver	m ²		
B7.9		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.9		Concrete (150mm thick, 25 Mpa)	m ²		
	8.3.6.2	Extra-over DB 8.3.6.1 for imported material for:			
B7.10		150 mm G9 gravel lower selected layer	m ³		
LB7.10		150 mm G9 gravel lower selected layer	m ³		
B7.11		150 mm G7 gravel upper selected layer	m ³		
LB7.11		150 mm G7 gravel upper selected layer	m ³		
B7.12		150 mm G5 gravel subbase coarse	m ³		
LB7.12		150 mm G5 gravel subbase coarse	m ³		
B7.13		150 mm G4 gravel base coarse	m ³		
LB7.13		150 mm G4 gravel base coarse	m ³		
B7.14		30mm asphalt	m ³		
LB7.14		30mm asphalt	m ³		
B7.15		60mm interlocking concrete paver	m ²		

LB7.15		60mm interlocking concrete paver	m ²		
B7.16		60mm bevel concrete paver	m ²		
LB7.16		60mm bevel concrete paver	m ²		
B7.17		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.17		Concrete (150mm thick, 25 Mpa)	m ²		
B7.18	8.3.8	Cut bitumen layer	m		
LB7.18	8.3.8	Cut bitumen layer	m		

SECTION C					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
C1	SANS 1200 MJ	SECTION C: ROADWORKS			
		Segmented paving			
C1.1	8.2.2	Supply and construct concrete bevel paving complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.1	8.2.2	Supply and construct concrete bevel paving complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.2	8.2.2	Construct concrete bevel paving from existing bricks complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.2	8.2.2	Construct concrete bevel paving from existing bricks complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.3	8.2.2	Supply and construct concrete interlocking paving complete (60 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.3	8.2.2	Supply and construct concrete interlocking paving complete (60 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.4	8.2.2	Construct concrete interlocking paving from existing bricks complete (60 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.4	8.2.2	Construct concrete interlocking paving from existing bricks complete (60 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.5	8.2.2	Construct concrete interlocking paving from existing bricks complete (80 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		

LC1.5	8.2.2	Construct concrete interlocking paving from existing bricks complete (80 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.6	8.2.2	Supply and construct clay paving (wheat) complete from commercial sources (50 mm bricks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.6	8.2.2	Supply and construct clay paving (wheat) complete from commercial sources (50 mm bricks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.7	8.2.2	Supply and construct clay paving complete from existing (existing bricks on 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.7	8.2.2	Supply and construct clay paving complete from existing (existing bricks on 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.8	8.2.2	Supply and construct concrete cobble paving complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.8	8.2.2	Supply and construct concrete cobble paving complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.9	8.2.2	Construct concrete cobble paving from existing bricks complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
LC1.9	8.2.2	Construct concrete cobble paving from existing bricks complete (50 mm blocks and 20 mm stabilized crushed sand bedding "Fine Grit")	m ²		
C1.10	8.2.3	Cut blocks to fit edge restraints/kerbs	m		
LC1.10	8.2.3	Cut blocks to fit edge restraints/kerbs	m		
C1.11		Construct anchor beams complete as per detail	m		
LC1.11		Construct anchor beams complete as per detail	m		

C2	SANS 1200 MF	Base			
C2.1	8.3.3	Construct 150 mm G2 base course compacted to 98% of MAMDD with material from commercial sources	m ³		
LC2.1	8.3.3	Construct 150 mm G2 base course compacted to 98% of MAMDD with material from commercial sources	m ³		
C3	SANS 1200 ME	Subbase			
C3.1	8.3.3	Construct 150 mm G5 subbase course compacted to 95% of MAMDD with material from commercial sources	m ³		
LC3.1	8.3.3	Construct 150 mm G5 subbase course compacted to 95% of MAMDD with material from commercial sources	m ³		
C3.2	8.3.5	Process subbase by stabilization	m ³		
LC3.2	8.3.5	Process subbase by stabilization	m ³		
C3.3	8.3.8	Stabilization Agent: Portland Cement	t		
C4	COTO Standard Specifications (Roads and Bridges)	Ultra-Thin Asphalt (UTA)			
C4.1	9000	Surfacing with ultra thin asphalt	m ²		
LC4.1	9000	Surfacing with ultra thin asphalt	m ²		
C4.2	90.01	Tack coat using 30% bitumen emulsion at a rate of 0.5l/m ² (Road Surface)	m ²		
LC4.2	90.01	Tack coat using 30% bitumen emulsion at a rate of 0.5l/m ² (Road Surface)	m ²		
C5		Prime			
	41.01	Prime Coat:			
C5.1		MC-30 cut-back bitumen at 1 l/m ²	m ²		

LC.5.1		MC-30 cut-back bitumen at 1 l/m ²	m ²		
C6	4200	Asphalt Base and Surfacing			
	B42.02	Asphalt surfacing (using 50/70 penetration grade bitumen):			
C.6.1		Continuously graded, fine grade 25mm	m ²		
LC.6.1		Continuously graded, fine grade 25mm	m ²		
C7		Patching (Asphalt supplied by the Contractor)			
C7.1		Breakout and remove, within 5 km, existing asphalt, uncemented layers and replaced with BTB and/or hot mixed asphalt			
C7.1.1		Up to 30 mm deep	m ²		
LC7.1.1		Up to 30 mm deep	m ²		
C7.1.2		Up to 130 mm deep (100 mm BTB)	m ²		
LC7.1.2		Up to 130 mm deep (100 mm BTB)	m ²		
C7.1.3		Up to 180 mm deep (150 mm BTB)	m ²		
LC7.1.3		Up to 180 mm deep (150 mm BTB)	m ²		
C7.1.4		Extra over 180 mm (>150 mm BTB)	m ²		
LC7.1.4		Extra over 180 mm (>150 mm BTB)	m ²		

SECTION D					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION D: STORMWATER DRAINAGE AND SERVICE DUCTS			
	SANS 1200 DB	Excavation			
D1	8.3.2(a)	Excavate in all materials for trenches, backfill, compact and dispose of surplus material for:			
D1.1		Pipes up to 600 mm dia for depths:			
		Over and Up to			
D1.1.1		0,0 m 2,0 m	m		
LD1.1.1		0,0 m 2,0 m	m		
D1.1.2		2,0 m 2,5 m	m		
LD1.1.2		2,0 m 2,5 m	m		
D1.1.3		2,5 m 3,0 m	m		
LD1.1.3		2,5 m 3,0 m	m		
D2	1200 LB	Bedding			
	8.2.1	Provision of bedding from trench excavation:			
D2.1		Selected fill material	m ³		
		Supply only of bedding by importation:			
	8.2.2.3	From commercial sources:			
D2.2		Selected granular material	m ³		
	1200 DB	Excavation ancillaries			
D3	8.3.3.1(c)	Make up deficiency in backfill material:			

D3.1		By importation from commercial or off-site sources selected by Contractor	m ³		
D4	8.3.3.3	Additional compaction in areas subject to traffic loads	m ³		
LD4	8.3.3.3	Additional compaction in areas subject to traffic loads	m ³		
D5	1200 LE	Pipework			
D5.1	8.2.1	Supply, Lay, bed (bedding Class C) Class 100D and joint concrete pipes with OG joint:			
D5.1.1		375 mm dia	m		
LD5.1.1		375 mm dia	m		
D5.1.2		450 mm dia	m		
LD5.1.2		450 mm dia	m		
D5.1.3		525 mm dia	m		
LD5.1.3		525 mm dia	m		
D5.1.4		600 mm dia	m		
LD5.1.4		600 mm dia	m		
D5.1.5		750 mm dia	m		
LD5.1.5		750 mm dia	m		
D5.1.6		900 mm dia	m		
LD5.1.6		900 mm dia	m		
D5.1.7		1050 mm dia	m		
LD5.1.7		1050 mm dia	m		
D5.1.8		1200 mm dia	m		
LD5.1.8		1200 mm dia	m		

D6.1	8.2.5(b)	Excavate, supply, lay and prove 110 to 160 mm dia PVC-U pipes for electrical cables complete with couplings and draw wires	m		
D7	1200 LE	Supply and install manholes, catchpits, headwalls and the like			
D7.1	8.2.8 (a)	Precast concrete manhole, where invert depth is: Over and Up to			
D7.1.1		0,0 m 1,5 m	No		
LD7.1.1		0,0 m 1,5 m	No		
D7.1.2		1,5 m 2,0 m	No		
LD7.1.2		1,5 m 2,0 m	No		
D7.2	8.2.8 (b)	Single inlet catchpit to detail including transitional channels upstream and downstream of catchpit where invert depth is: Over and Up to			
D7.2.1		0,0 m 1,5 m	No		
LD7.2.1		0,0 m 1,5 m	No		
D7.2.2		1,5 m 2,0 m	No		
LD7.2.2		1,5 m 2,0 m	No		
D7.3	8.2.8 (b)	Double inlet catchpit to detail including transitional channels upstream and downstream of catchpit where invert depth is: Over and Up to			
D7.3.1		0,0 m 1,5 m	No		
LD7.3.1		0,0 m 1,5 m	No		
D7.3.2		1,5 m 2,0 m	No		

LD7.3.2		1,5 m 2,0 m	No		
D7.4		Connect to existing stormwater manhole	No		
D7.4		Connect to existing stormwater manhole	No		

SECTION E					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
	SANS 1200MM	SECTION E: ANCILLARY ROADWORKS			
E1		Guardrails			
E1.1	8.2.1 (a)	Galvanized Guardrails on posts	m		
LE1.1	8.2.1 (a)	Galvanized Guardrails on posts	m		
E1.2	8.2.2	Extra-over for item E1.1 for Horizontally curved guardrails (radius < 150m)	m		
E1.2	8.2.2	Extra-over for item LE1.1 for Horizontally curved guardrails (radius < 150m)	m		
E1.3	8.2.3	End Units (End Wings)	No		
LE1.3	8.2.3	End Units (End Wings)	No		
E1.4	8.2.4	Additional guardrail posts	No		
LE1.4	8.2.4	Additional guardrail posts	No		
E1.5	8.2.5	Reflector Plates	No		
LE1.5	8.2.5	Reflector Plates	No		
E2		Roadmarking			
E2.1	8.4.4(a)	Pre-marking of lines	km		
LE2.1	8.4.4(a)	Pre-marking of lines	km		
E2.2	8.4.1	Painting of lines (reflective white and yellow):			
E2.2.1		100 mm wide	km		
LE2.2.1		100 mm wide	km		
E2.2.2		200 mm wide	km		
LE2.2.2		200 mm wide	km		

E2.2.3		300 mm wide	km		
LE2.2.3		300 mm wide	km		
E2.4		Special markings ("Stop", yield sign, etc)	m ²		
LE2.4		Special markings ("Stop", yield sign, etc)	m ²		
E2.5	8.4.3	Road Studs	No		
LE2.5	8.4.3	Road Studs	No		
E2.6		Sandblasting of existing road markings	m ²		
LE2.6		Sandblasting of existing road markings	m ²		

SECTION F					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
F1	SANS 1200DK	SECTION F: GABIONS			
F1.1	1200 D 8.3.2	Excavate in soft material situated in the following depth ranges below surface level :			
F1.1.1		Up to 1.5m	m ³		
F1.2	SANS 1200DK 8.2.1	Surface preparation for bedding of gabions	m ²		
LF1.2	8.2.1	Surface preparation for bedding of gabions	m ²		
F1.3		Construct gabions using PVC coated wire			
F1.3.1	8.2.2	Mattresses of depth 0.3m with diaphragms providing 2m x 1m cells	m ³		
LF1.3.1	8.2.2	Mattresses of depth 0.3m with diaphragms providing 2m x 1m cells	m ³		
F1.3.2	8.2.2	Gabions of section 1m x 1m using imported gabion stone	m ³		
LF1.3.2	8.2.2	Gabions of section 1m x 1m using imported gabion stone	m ³		
F1.4	8.2.3	Extra over for selecting face rock	m ²		
F1.5	8.2.4	Placing of geotextile:			
F1.5.1		Below Foundations	m ²		
LF1.5.1		Below Foundations	m ²		
F1.5.2		Behind wall	m ²		
LF1.5.2		Behind wall	m ²		

PROJECT 2: WATER

SECTION A					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
	SANS 1200 A	SECTION A : PRELIMINARY AND GENERAL			
A1		Time related items			
A1.1		Health and safety:			
A1.2	8.2.2	General safety obligations	Month		
A1.3	8.2.2	Health and safety plan	Month		
A1.4		Temporary Traffic Control Facilities			
A1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
LA1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
A1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
LA1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
A1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
LA1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
A1.4.4	8.8.2	Short term lane closure	day		
A1.4.5	8.8.2	Short term lane closure	week		
A1.4.6	8.8.2	Short term lane closure	month		
A1.4.7	8.8.2	STOP/RV-GO Traffic Control	day		
A1.4.8	8.8.2	STOP/RV-GO Traffic Control	week		
A1.4.9	8.8.2	STOP/RV-GO Traffic Control	month		
A1.5	8.4.2.2	Facilities for the Contractor			

A1.5.1	8.3.2.2(e)	Ablution Facilities	day		
A1.5.2	8.3.2.2(e)	Ablution Facilities	week		
A1.5.3	8.3.2.2(e)	Ablution Facilities	month		
A1.5.4	8.4.5	Security	day		
A1.5.5	8.4.5	Security	week		
A1.5.6	8.4.5	Security	month		
A1.5.7	8.3.3	Supervision	day		
A1.5.8	8.3.3	Supervision	week		
A1.5.9	8.3.3	Supervision	month		
A2	8.7	Daywork			
A2.1		Labour			
A2.1.1		Unskilled labour	h		
LA2.1.1		Unskilled labour	h		
A2.1.2		Semi-skilled labour	h		
LA2.1.2		Semi-skilled labour	h		
A2.1.3		Skilled labour	h		
LA2.1.3		Skilled labour	h		
A2.2	8.5	Materials			
A2.2.1		Allow for net cost of materials used by Contractor for minor ancillary works	Provisional Sum	50 000,00	
A2.2.2		Percentage adjustment on Item A2.2.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.2.3		Allow for geotechnical testing by an accredited geotechnical laboratory where required by the Client	Provisional Sum	30 000,00	

A2.2.4		Percentage adjustment on Item A2.2.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.3	8.5	Plant			
A2.3.1		Plant used by Contractor for minor ancillary works			
A2.3.1.1		1-ton Bakkie	h		
A2.3.1.2		6m³ Tip Truck	h		
A2.3.1.3		Excavator	h		
A2.3.1.4		Digger / TLB	h		
A2.3.1.5		Truck (10 ton)	h		
A2.3.1.6		LDV	h		
A2.3.1.7		Trailer (2,5 Ton)	h		
A2.3.1.8		Water pump	h		
A2.3.1.9		Compressor	h		
A2.3.1.10		Small plant	h		
A2.3.1.11		Overhead charges on items above	%		
A2.4	8.8.5	Cost of Survey			
A2.4.1	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – locate and record	Provisional Sum	20 000,00	
A2.4.2		Percentage adjustment on Item A2.4.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.4.3	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – protect and re-establish	Provisional Sum	20 000,00	
A2.4.4		Percentage adjustment on Item A2.4.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.5		Mentorship			

A2.5.1		Mentorship programs for Sub-Contractors	Provisional Sum	100 000,00	
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SECTION B					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION B: SITE CLEARANCE			
B1	SANS 1200 C	Site clearance			
	8.2.1	Clear and grub			
B1.1		Pipelines	m		
LB1.1		Pipelines	m		
B1.2		Remove and grub all trees and tree stumps regardless of the girth	m ²		
	8.22	Remove tree stumps with girth of			
		Over and up to			
B1.2.1		0.5 m 1.0 m	No		
LB1.2.1		0.5 m 1.0 m	No		
B1.3	8.2.12	Remove and re-erect / build existing fences / walls:			
B1.3.1		Devil fork	m		
LB1.3.1		Devil fork	m		
B1.3.2		Wooden fence up to 1.2 m high	m		
LB1.3.2		Wooden fence up to 1.2 m high	m		
B1.3.3		Wooden fence up to 1.8 m high	m		
LB1.3.3		Wooden fence up to 1.8 m high	m		
B1.3.4		Vibracrete wall	m		
LB1.3.4		Vibracrete wall	m		
B1.3.5		Brick wall up to 1.2 m high	m		

LB1.3.5		Brick wall up to 1.2 m high	m		
B1.3.6		Brick wall up to 1.8m high	m		
LB1.3.6		Brick wall up to 1.8m high	m		
B1.3.7		Mesh Fencing up to 1.2m high	m		
LB1.3.7		Mesh Fencing up to 1.2m high	m		
B1.3.8		Mesh Fencing up to 1.8m high	m		
LB1.3.8		Mesh Fencing up to 1.8m high	m		
B1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
LB1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
B1.4.1		Remove grass sods, store and maintain on site	m ²		
LB1.4.1		Remove grass sods, store and maintain on site	m ²		
B1.4.2		Lay grass sods from stockpile	m ²		
LB1.4.2		Lay grass sods from stockpile	m ²		
B1.4.3		Lay grass sods from commercial sources	m ²		
LB1.4.3		Lay grass sods from commercial sources	m ²		
B1.6	8.2.8	Demolish and remove miscellaneous structures:			
B1.6.1		Existing brick underground structure (1mx1mx1m)	No		
LB1.6.1		Existing brick underground structure (1mx1mx1m)	No		
B1.6.2		Existing boundary wall	m		
LB1.6.2		Existing boundary wall	m		
B1.6.3		Existing concrete structures	m ²		

LB1.6.3		Existing concrete structures	m ²		
B1.6.4		Existing precast kerbs	m		
LB1.6.4		Existing precast kerbs	m		
B1.6.5		Existing bitumen surfacing	m ²		
LB1.6.5		Existing bitumen surfacing	m ²		
B1.6.6		Existing concrete channel	m		
LB1.6.6		Existing concrete channel	m		
B1.6.7		Existing stone pitched stormwater channel	m		
LB1.6.7		Existing stone pitched stormwater channel	m		
B1.6.8		Existing pipeline (up to 450mm)	m		
LB1.6.8		Existing pipeline (up to 450mm)	m		
B1.7		Relocate existing wire fence to positions as indicated	m		
LB1.7		Relocate existing wire fence to positions as indicated	m		
B1.8		Lowering of water erf connections within road reserve	No		
LB1.8		Lowering of water erf connections within road reserve	No		
B1.9		Remove existing paving and stockpile on site	m ²		
LB1.9		Remove existing paving and stockpile on site	m ²		
B1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
LB1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
B1.11	8.3.5(a)	EXISTING SERVICES			

		Services that intersect a trench			
B1.11.1		Power / Communication Cables	m		
LB1.11.1		Power / Communication Cables	m		
B1.11.2		Pipelines	m		
LB1.11.2		Pipelines	m		
B1.11.3		Fences	m		
LB1.11.3		Fences	m		
B1.11.4		Kerbs	m		
LB1.11.4		Kerbs	m		
B1.11.5		Walls	m		
LB1.11.5		Walls	m		
B1.11.6		Manholes	No		
LB1.11.6		Manholes	No		
B1.11.7		Formal / informal structure	m		
LB1.11.7		Formal / informal structure	m		
B1.11.8		Poles	No		
LB1.11.8		Poles	No		
	8.3.5 (b)	Services that adjoin a trench:			
B1.11.9		Power / Communication Cables	m		
LB1.11.9		Power / Communication Cables	m		
B1.11.10		Pipelines	m		
LB1.11.10		Pipelines	m		
B1.11.11		Fences	m		

LB1.11.11		Fences	m		
B1.11.12		Kerbs	m		
LB1.11.12		Kerbs	m		
B1.11.13		Walls	m		
LB1.11.13		Walls	m		
B1.11.14		Manholes	No		
LB1.11.14		Manholes	No		
B1.11.15		Formal / informal structures	m		
LB1.11.15		Formal / informal structures	m		
B1.11.16		Poles	No		
LB1.11.16		Poles	No		
	1200 DM	Subgrade			
B2		Treatment of road-bed			
B2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
LB2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
B3		Earthworks			
B3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
LB3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
	SANS 1200 DM				
B3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		
LB3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		

B3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
LB3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
	SANS 1200 DB	Backfill			
B4	8.3.2(a)	Backfill, compact and dispose of surplus material for:			
B4.1		Pipes up to 160 mm dia:			
B4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.2		Pipes over 160mm up to 450 mm dia:			
B4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.3		Pipes over 450mm dia:			
B4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B5	SANS 1200 MK	Kerb and channeling			
B5.1	8.2.1	Precast concrete barrier kerb and channel where radius is:			
		Over and Up to			
B5.1.1		4 m 20 m	m		
LB5.1.1		4 m 20 m	m		

B5.1.2		20 m and straight	m		
LB5.1.2		20 m and straight	m		
B5.2	8.2.2	Precast mountable kerb and channel (CK1 / CK5) where radius is:			
		Over and Up to			
B5.2.1		4 m 20 m	m		
LB5.2.1		4 m 20 m	m		
B5.2.2		20 m and straight	m		
LB5.2.2		20 m and straight	m		
B5.3		Precast edgings	m		
LB5.3		Precast edgings	m		
B5.4		Precast Barrier kerb	m		
LB5.4		Precast Barrier kerb	m		
B5.5		Precast channel	m		
LB5.5		Precast channel	m		
B5.6		Precast mountable kerb (MK10)	m		
LB5.6		Precast mountable kerb (MK10)	m		
B5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
LB5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
B6	SANS 1200 DM	Surface finishes			
B6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		
LB6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		

B6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
LB6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
B6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
LB6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
B6.4		Placing of concrete	m ³		
LB6.4		Placing of concrete	m ³		
B6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
LB6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
B6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
LB6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
B7	1200 DB 8.3.6.1	Reinstatement of road surfaces complete with all courses:			
B7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
LB7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
B7.2		150 mm G9 gravel lower selected layer	m ²		
LB7.2		150 mm G9 gravel lower selected layer	m ²		
B7.3		150 mm G7 gravel upper selected layer	m ²		
LB7.3		150 mm G7 gravel upper selected layer	m ²		
B7.4		150 mm G5 gravel subbase coarse	m ²		
LB7.4		150 mm G5 gravel subbase coarse	m ²		

B7.5		150 mm G4 gravel base coarse	m ²		
LB7.5		150 mm G4 gravel base coarse	m ²		
B7.6		30 mm asphalt	m ²		
LB7.6		30 mm asphalt	m ²		
B7.7		60mm interlocking concrete paver	m ²		
LB7.7		60mm interlocking concrete paver	m ²		
B7.8		60mm bevel concrete paver	m ²		
LB7.8		60mm bevel concrete paver	m ²		
B7.9		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.9		Concrete (150mm thick, 25 Mpa)	m ²		
	8.3.6.2	Extra-over DB 8.3.6.1 for imported material for:			
B7.10		150 mm G9 gravel lower selected layer	m ³		
LB7.10		150 mm G9 gravel lower selected layer	m ³		
B7.11		150 mm G7 gravel upper selected layer	m ³		
LB7.11		150 mm G7 gravel upper selected layer	m ³		
B7.12		150 mm G5 gravel subbase coarse	m ³		
LB7.12		150 mm G5 gravel subbase coarse	m ³		
B7.13		150 mm G4 gravel base coarse	m ³		
LB7.13		150 mm G4 gravel base coarse	m ³		
B7.14		30mm asphalt	m ³		
LB7.14		30mm asphalt	m ³		
B7.15		60mm interlocking concrete paver	m ²		

LB7.15		60mm interlocking concrete paver	m ²		
B7.16		60mm bevel concrete paver	m ²		
LB7.16		60mm bevel concrete paver	m ²		
B7.17		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.17		Concrete (150mm thick, 25 Mpa)	m ²		
B7.18	8.3.8	Cut bitumen layer	m		
LB7.18	8.3.8	Cut bitumen layer	m		

SECTION C					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION C: WATER PIPE NETWORKS			
C1	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)			
	8.3.1	EXCAVATION			
	8.3.2(a)	Excavate in all materials for trenches, select, backfill, compact and dispose of all surplus material for main pipes with: Diameter up to 250 mm for depths: Over and Up to			
C1.1		0.5 m 1.0 m	m		
LC1.1		0.5 m 1.0 m	m		
C1.2		1.0 m 1.5 m	m		
LC1.2		1.0 m 1.5 m	m		
C1.3		1.5 m 2.0 m	m		
LC1.3		1.5 m 2.0 m	m		
C1.4		2.0 m 2.5 m	m		
LC1.4		2.0 m 2.5 m	m		
C1.5		2.5 m 3.0 m	m		
LC1.5		2.5 m 3.0 m	m		
	8.3.2(b)	Extra-over for item 8.3.2(a)			
C1.6		Hard rock excavation	m ³		
LC1.6		Hard rock excavation	m ³		
C1.7		Intermediate excavation	m ³		

LC1.7		Intermediate excavation	m ³		
C1.8	8.3.2(c)	Excavate unsuitable material from trench bottom	m ³		
LC1.8	8.3.2(c)	Excavate unsuitable material from trench bottom	m ³		
C1.9	8.3.8.1(c)	Hand excavation to expose existing services	m ³		
LC1.9	8.3.8.1(c)	Hand excavation to expose existing services	m ³		
C1.10	8.3.2(e)	Extra-over 8.3.2(a) for temporary stockpiling of material	m ³		
LC1.10	8.3.2(e)	Extra-over 8.3.2(a) for temporary stockpiling of material	m ³		
C1.11	8.3.5.8	Reinstate gardens	m ²		
LC1.11	8.3.5.8	Reinstate gardens	m ²		
C1.12	8.3.5.7	Remove and reinstate existing grass area	m ²		
LC1.12	8.3.5.7	Remove and reinstate existing grass area	m ²		
C2	8.3.3	EXCAVATION ANCILLARIES			
	8.3.3.1	Make up deficiency in backfill material			
C2.1	8.3.3.1	From commercial sources (G7) gravel material	m ³		
LC2.1	8.3.3.1	From commercial sources (G7) gravel material	m ³		
C2.2	8.3.3.3	Compaction in road reserves	m ³		
LC2.2	8.3.3.3	Compaction in road reserves	m ³		
C3		OVERHAUL			
C3.1		Limited overhaul	m ³		
LC3.1		Limited overhaul	m ³		

C3.2		Long overhaul	m ³ .km		
C4	8.3.4	Shoring of trenches where required			
		Over and Up to			
C4.1		0 m 1.5 m	m		
LC4.1		0 m 1.5 m	m		
C4.2		1.5 m 2.0 m	m		
LC4.2		1.5 m 2.0 m	m		
C4.3		2.0 m 2.5 m	m		
LC4.3		2.0 m 2.5 m	m		
C4.4		2.5 m 3.0 m	m		
LC4.4		2.5 m 3.0 m	m		
C5	SABS 1200 LB	BEDDING (PIPES)			
	8.2.2	Supply only of bedding by importation			
	8.2.2.3	Provision of bedding material compacted to 90% of MAASHTO density (100% of sand) with material from commercial sources			
C5.1		Selected granular material	m ³		
LC5.1		Selected granular material	m ³		
C5.2		Selected fill material	m ³		
LC5.2		Selected fill material	m ³		
C6		REMOVAL AND DISPOSING OF EXISTING PIPES			
C6.1	8.2.13	Remove and dispose existing 50mm to 150mm dia pipes at site designated by the contractor	m		

LC6.1	8.2.13	Remove and dispose existing 50mm to 150mm dia pipes at site designated by the contractor	m		
C6.2	8.2.13	Remove and dispose existing 150mm to 250mm dia pipes at site designated by the contractor	m		
LC6.2	8.2.13	Remove and dispose existing 150mm to 250mm dia pipes at site designated by the contractor	m		
C7	SABS 1200 L	MEDIUM PRESSURE PIPELINES			
		PIPES:			
	8.2.1	Supply, lay and bed on bedding according to SABS 1200 drawing LB-2, joint including cut pipes to lengths where required, test and disinfect with necessary couplings			
C7.1		75mm dia PVC-U Class 12	m		
LC7.1		75mm dia PVC-U Class 12	m		
C7.2		90mm dia PVC-U Class 12	m		
LC7.2		90mm dia PVC-U Class 12	m		
C7.3		110mm dia PVC-U Class 12	m		
LC7.3		110mm dia PVC-U Class 12	m		
C7.4		160mm dia PVC-U Class 12	m		
LC7.4		160mm dia PVC-U Class 12	m		
C7.5		200 mm dia PVC-U Class 12	m		
LC7.5		200 mm dia PVC-U Class 12	m		
C7.6		250 mm dia PVC-U Class 12	m		
LC7.6		250 mm dia PVC-U Class 12	m		
		Pipe material to be supplied by the Contractor:			

		Lay and bed on bedding, joint including cut pipes to lengths where required, test and disinfect with necessary couplings	m		
C7.7		75mm dia PVC-U Class 12	m		
LC7.7		75mm dia PVC-U Class 12	m		
C7.8		90mm dia PVC-U Class 12	m		
LC7.8		90mm dia PVC-U Class 12	m		
C7.9		110mm dia PVC-U Class 12	m		
LC7.9		110mm dia PVC-U Class 12	m		
C7.10		160mm dia PVC-U Class 12	m		
LC7.10		160mm dia PVC-U Class 12	m		
C7.11		200 mm dia PVC-U Class 12	m		
LC7.11		200 mm dia PVC-U Class 12	m		
C7.12		250 mm dia PVC-U Class 12	m		
LC7.12		250 mm dia PVC-U Class 12	m		
C8	8.2.2	Supply, lay and bed on bedding, joint including cut pipes to lengths where required, test and disinfect with necessary couplings			
		PVC-U BENDS for PVC-U pipes:			
C8.1		75 mm dia Class 16 x 11¼°	No		
LC8.1		75 mm dia Class 16 x 11¼°	No		
C8.2		75 mm dia Class 16 x 22½°	No		
LC8.2		75 mm dia Class 16 x 22½°	No		
C8.3		75 mm dia Class 16 x 45°	No		
LC8.3		75 mm dia Class 16 x 45°	No		

C8.4		75 mm dia Class 16 x 90°	No		
LC8.4		75 mm dia Class 16 x 90°	No		
C8.5		90 mm dia Class 16 x 11¼°	No		
LC8.5		90 mm dia Class 16 x 11¼°	No		
C8.6		90 mm dia Class 16 x 22½°	No		
LC8.6		90 mm dia Class 16 x 22½°	No		
C8.7		90 mm dia Class 16 x 45°	No		
LC8.7		90 mm dia Class 16 x 45°	No		
C8.8	8.2.2	90 mm dia Class 16 x 90°	No		
LC8.8	8.2.2	90 mm dia Class 16 x 90°	No		
C8.9		110 mm dia Class 16 x 11¼°	No		
LC8.9		110 mm dia Class 16 x 11¼°	No		
C8.10		110 mm dia Class 16 x 22½°	No		
LC8.10		110 mm dia Class 16 x 22½°	No		
C8.11		110 mm dia Class 16 x 45°	No		
LC8.11		110 mm dia Class 16 x 45°	No		
C8.12		110 mm dia Class 16 x 90°	No		
LC8.12		110 mm dia Class 16 x 90°	No		
C8.13		160 mm dia Class 16 x 11¼°	No		
LC8.13		160 mm dia Class 16 x 11¼°	No		
C8.14		160 mm dia Class 16 x 22½°	No		
LC8.14		160 mm dia Class 16 x 22½°	No		
C8.15		160 mm dia Class 16 x 45°	No		

LC8.15	160 mm dia Class 16 x 45°	No		
C8.16	160 mm dia Class 16 x 90°	No		
LC8.16	160 mm dia Class 16 x 90°	No		
C8.17	200 mm dia Class 16 x 11¼°	No		
LC8.17	200 mm dia Class 16 x 11¼°	No		
C8.18	200 mm dia Class 16 x 22½°	No		
LC8.18	200 mm dia Class 16 x 22½°	No		
C8.19	200 mm dia Class 16 x 45°	No		
LC8.19	200 mm dia Class 16 x 45°	No		
C8.20	200 mm dia Class 16 x 90°	No		
LC8.20	200 mm dia Class 16 x 90°	No		
C8.21	250 mm dia Class 16 x 11¼°	No		
LC8.21	250 mm dia Class 16 x 11¼°	No		
C8.22	250 mm dia Class 16 x 22½°	No		
LC8.22	250 mm dia Class 16 x 22½°	No		
C8.23	250 mm dia Class 16 x 45°	No		
LC8.23	250 mm dia Class 16 x 45°	No		
C8.24	250 mm dia Class 16 x 90°	No		
LC8.24	250 mm dia Class 16 x 90°	No		
	Supply, install VJ COUPLINGS installed on PVC-U / AC Pipes:			
C8.25	50mm dia	No		
LC8.25	50mm dia	No		
C8.26	75mm dia	No		

LC8.26	75mm dia	No		
C8.29	90mm dia	No		
LC8.29	90mm dia	No		
C8.30	110mm dia	No		
LC8.30	110mm dia	No		
C8.31	160mm dia	No		
LC8.31	160mm dia	No		
C8.32	200mm dia	No		
LC8.32	200mm dia	No		
C8.33	225mm dia	No		
LC8.33	225mm dia	No		
	Supply, install Plain ended cast-iron T-PIECES installed on PVC-U pipes:			
C8.34	250mm x 200mm	No		
LC8.34	250mm x 200mm	No		
C8.35	250mm x 160mm	No		
LC8.35	250mm x 160mm	No		
C8.36	250mm x 110mm	No		
LC8.36	250mm x 110mm	No		
C8.37	200mm x 160mm	No		
LC8.37	200mm x 160mm	No		
C8.38	200mm x 110mm	No		
LC8.38	200mm x 110mm	No		

C8.39	200mm x 90mm	No		
LC8.39	200mm x 90mm	No		
C8.40	200mm x 75mm	No		
LC8.40	200mm x 75mm	No		
C8.41	160mm x 110mm	No		
LC8.41	160mm x 110mm	No		
C8.42	160mm x 90mm	No		
LC8.42	160mm x 90mm	No		
C8.43	160mm x 75mm	No		
LC8.43	160mm x 75mm	No		
C8.44	110mm x 90mm	No		
LC8.44	110mm x 90mm	No		
C8.45	110mm x 75mm	No		
LC8.45	110mm x 75mm	No		
C8.46	75mm x 50mm	No		
LC8.46	75mm x 50mm	No		
	Supply, install REDUCERS installed on PVC-U pipes:			
C8.47	250mm to 200mm	No		
LC8.47	250mm to 200mm	No		
C8.48	200mm to 160mm	No		
LC8.48	200mm to 160mm	No		
C8.49	200mm to 110mm	No		
LC8.49	200mm to 110mm	No		

C8.50	160mm to 110mm	No		
LC8.50	160mm to 110mm	No		
C8.51	160mm to 90mm	No		
LC8.51	160mm to 90mm	No		
C8.52	110mm to 90mm	No		
LC8.52	110mm to 90mm	No		
C8.53	110mm to 75mm	No		
LC8.53	110mm to 75mm	No		
C8.54	75mm to 50mm	No		
LC8.54	75mm to 50mm	No		
C9	VALVES Supply and install on concrete support, joint, include cut pipes where necessary and test complete with T-pieces, fittings, pipe work and couplings where necessary			
C9.1	250mm dia pipe	No		
LC9.1	250mm dia pipe	No		
C9.2	200mm dia pipe	No		
LC9.2	200mm dia pipe	No		
C9.3	160 mm dia pipe	No		
LC9.3	160 mm dia pipe	No		
C9.4	110 mm dia pipe	No		
LC9.4	110 mm dia pipe	No		

	8.2.3	Install on concrete support, joint, include cut pipes where necessary and test complete with T-pieces, fittings, pipe work and couplings where necessary. Material to be supplied by the Contractor.			
C9.5		250mm dia pipe	No		
LC9.5		250mm dia pipe	No		
C9.6		200mm dia pipe	No		
LC9.6		200mm dia pipe	No		
C9.7		160 mm dia pipe	No		
LC9.7		160 mm dia pipe	No		
C9.8		110 mm dia pipe	No		
LC9.8		110 mm dia pipe	No		
C10		Supply, install FIRE HYDRANT complete with T-pieces and extensions on UPVC pipes (Material to be supplied by the Contractor)			
C10.1		250mm dia pipe	No		
LC10.1		250mm dia pipe	No		
C10.2		200mm dia pipe	No		
LC10.2		200mm dia pipe	No		
C10.3		160 mm dia pipe	No		
LC10.3		160 mm dia pipe	No		
C10.4		110 mm dia pipe	No		
LC10.4		110 mm dia pipe	No		
C11		Supply, install GATE VALVE for uPVC pipes (Material to be supplied by the Contractor)			
C11.1		250mm dia pipe	No		

LC11.1	250mm dia pipe	No		
C11.2	200mm dia pipe	No		
LC11.2	200mm dia pipe	No		
C11.3	160 mm dia pipe	No		
LC11.3	160 mm dia pipe	No		
C11.4	110 mm dia pipe	No		
LC11.4	110 mm dia pipe	No		
C11.5	75 mm dia pipe	No		
LC11.5	75 mm dia pipe	No		
C11.6	50 mm dia pipe	No		
LC11.6	50 mm dia pipe	No		
C12	Supply, install AIR VALVE for uPVC pipes including fittings and t-piece (Material to be supplied by the Contractor)			
C12.1	250mm dia pipe	No		
LC12.1	250mm dia pipe	No		
C12.2	200mm dia pipe	No		
LC12.2	200mm dia pipe	No		
C12.3	160 mm dia pipe	No		
LC12.3	160 mm dia pipe	No		
C12.4	110 mm dia pipe	No		
LC12.4	110 mm dia pipe	No		
C12.5	90 mm dia pipe	No		
LC12.5	90 mm dia pipe	No		

C13		Supply, install SCOUR VALVE for uPVC pipes including fittings, t-piece and valve box (Material to be supplied by the Contractor)			
C13.1		250mm dia pipe	No		
LC13.1		250mm dia pipe	No		
C13.2		160 mm dia pipe	No		
LC13.2		160 mm dia pipe	No		
C13.3		110 mm dia pipe	No		
LC13.3		110 mm dia pipe	No		
C13.4		90 mm dia pipe	No		
LC13.4		90 mm dia pipe	No		
C14	8.2.13	VALVE CHAMBERS			
C14.1		Supply, install Gate valve chambers complete for depth up to 1,5 m.	No		
LC14.1		Supply, install Gate valve chambers complete for depth up to 1,5 m.	No		
C14.2		Supply, install Fire hydrant chambers	No		
LC14.2		Supply, install Fire hydrant chambers	No		
C14.3		Supply, install Air valve chambers complete	No		
LC14.3		Supply, install Air valve chambers complete	No		
C15		ANCILLARIES			
	8.2.5	Supply, install and test pipes, fittings and valves for:			
C15.1	8.2.10	Temporary valves, etc.	No		
LC15.1	8.2.10	Temporary valves, etc.	No		

C15.2	8.2.11	Anchor/Thrust blocks, Transverse anchor blocks and Vertical anchor blocks	m ³		
LC15.2	8.2.11	Anchor/Thrust blocks, Transverse anchor blocks and Vertical anchor blocks	m ³		
C15.3	8.2.12	Concrete encasing of pipes with grade 15/19 MPa concrete.	m ³		
LC15.3	8.2.12	Concrete encasing of pipes with grade 15/19 MPa concrete.	m ³		
C16		ERF CONNECTIONS (WATER)			
	SABS 1200 L	Supply, lay and bed type IV Class 12 HDPE pipes on class C bedding complete with couplings, test and disinfect the follow pipes:			
C16.1		25mm dia	m		
LC16.1		25mm dia	m		
C16.2		32mm dia	m		
LC16.2		32mm dia	m		
C17	8.2.2	Supply, install SADDLES for type IV HDPE pipes on UPVC main pipes			
C17.1		25mm on 75mm dia	No		
LC17.1		25mm on 75mm dia	No		
C17.2		25mm on 90mm dia	No		
LC17.2		25mm on 90mm dia	No		
C17.3		25mm on 110mm dia	No		
LC17.3		25mm on 110mm dia	No		
C17.4		25mm on 160mm dia	No		
LC17.4		25mm on 160mm dia	No		

C17.5	32mm on 75mm dia	No		
LC17.5	32mm on 75mm dia	No		
C17.6	32mm on 90mm dia	No		
LC17.6	32mm on 90mm dia	No		
C17.7	32mm on 110mm dia	No		
LC17.7	32mm on 110mm dia	No		
C17.8	32mm on 160 mm dia	No		
LC17.8	32mm on 160 mm dia	No		
C18	Supply, install LOCKABLE FERRULES for type IV HDPE pipes			
C18.1	25mm dia	No		
LC18.1	25mm dia	No		
C18.2	32mm dia	No		
LC18.2	32mm dia	No		
	Supply, install MALE ELBOWS for type IV HDPE pipes			
C18.3	25mm x 1" dia	No		
LC18.3	25mm x 1" dia	No		
C18.4	32mm x 1¼ dia	No		
LC18.4	32mm x 1¼ dia	No		
	Supply, install TEES with female thread branch for type IV HDPE pipes			
C18.5	32mm x 1¼" dia	No		
LC18.5	32mm x 1¼" dia	No		
	Supply, install MALE ADAPTORS for type IV HDPE pipes			

C18.6		25mm x 1¾" dia	No		
LC18.6		25mm x 1¾" dia	No		
		Supply, connect new house connection to existing			
C18.7		25mm dia	No		
LC18.7		25mm dia	No		
C18.8		32mm dia	No		
LC18.8		32mm dia	No		
C19		CHAMBERS			
C19.1		Supply, build 220mm clay brick wall, plastered on the inside and outside	m²		
LC19.1		Supply, build 220mm clay brick wall, plastered on the inside and outside	m²		
C19.2		Supply and install step irons	No.		
LC19.2		Supply and install step irons	No.		
C19.3		Supply and install 600 x 450 frame and lid (Polymer - Heavy duty).	Each		
LC19.3		Supply and install 600 x 450 frame and lid (Polymer - Heavy duty).	Each		
C19.4		Supply and install 600 x 450 frame and lid (Polymer - Medium duty).	Each		
LC19.4		Supply and install 600 x 450 frame and lid (Polymer - Medium duty).	Each		
C19.5		Supply and install 600 x 450 frame and lid (Polymer - Light duty)	Each		
LC19.5		Supply and install 600 x 450 frame and lid (Polymer - Light duty)	Each		
C20	SANS 1200L	INSTALL WATER CONNECTIONS			

		Connect to watermains of dia up to 160mm (to a maximum of 10m length)			
C20.1		20mm Water Connection (Complete with fittings)	No		
LC20.1		20mm Water Connection (Complete with fittings)	No		
C20.2		25mm Water Connection (Complete with fittings)	No		
LC20.2		25mm Water Connection (Complete with fittings)	No		
C20.3		40mm Water Connection (Complete with fittings)	No		
LC20.3		40mm Water Connection (Complete with fittings)	No		
C20.4		50mm Water Connection (Complete with fittings)	No		
LC20.4		50mm Water Connection (Complete with fittings)	No		
		Connected to watermains over dia of 160mm (to a maximum of 10m length)			
C20.5		20mm Water Connection (Complete with fittings)	No		
LC20.5		20mm Water Connection (Complete with fittings)	No		
C20.6		25mm Water Connection (Complete with fittings)	No		
LC20.6		25mm Water Connection (Complete with fittings)	No		
C20.7		40mm Water Connection (Complete with fittings)	No		
LC20.7		40mm Water Connection (Complete with fittings)	No		
C20.8		50mm Water Connection (Complete with fittings)	No		
LC20.8		50mm Water Connection (Complete with fittings)	No		

C20.9	Extra over for where connection is longer than 10m	m		
LC20.9	Extra over for where connection is longer than 10m	m		
C21	METER AND VALVE BOX			
	FIRE HYDRANT AND VALVES MAINTENANCE			
C21.1	Locate and expose existing fire hydrants and valves (max area 5m x 5m x 0.5m)	Each		
LC21.1	Locate and expose existing fire hydrants and valves (max area 5m x 5m x 0.5m)	Each		
C21.2	Excavate, expose, repair and backfill fire hydrant chamber (complete with cover and frame). *Cover and Frame supplied by Contractor	Each		
LC21.2	Excavate, expose, repair and backfill fire hydrant chamber (complete with cover and frame). *Cover and Frame supplied by Contractor	Each		
C21.3	Excavate, expose, repair and backfill valve chamber (complete with valve cover box). *Valve Cover box supplied by Contractor	Each		
LC21.3	Excavate, expose, repair and backfill valve chamber (complete with valve cover box). *Valve Cover box supplied by Contractor	Each		
C21.4	Clean fire hydrant chamber.	Each		
LC21.4	Clean fire hydrant chamber.	Each		
C21.5	Clean valve chamber.	Each		
LC21.5	Clean valve chamber.	Each		
C22	MARKER POSTS			
C22.1	Install valve and fire hydrant marker posts complete.	Each		
LC22.1	Install valve and fire hydrant marker posts complete.	Each		

C22.2		Paint fire hydrant and valve marker post.	Each		
LC22.2		Paint fire hydrant and valve marker post.	Each		
C22.3		Excavate and Relocate existing fire hydrant and valve marker	Each		
LC22.3		Excavate and Relocate existing fire hydrant and valve marker	Each		
C23	1200 LE 8.2.9 (a)	BRICKWORK			
C23.1		Brickwall 220mm thick with clay stock bricks (plastered and complete - brick force etc.). *Material supplied by Contractor	m ²		
LC23.1		Brickwall 220mm thick with clay stock bricks (plastered and complete - brick force etc.). *Material supplied by Contractor	m ²		
C23.2		Face brick wall 220mm thick	m ²		
LC23.2		Face brick wall 220mm thick	m ²		
C23.3		Prefabricated wall (Vibracrete)	m ²		
LC23.3		Prefabricated wall (Vibracrete)	m ²		

PROJECT 3: SEWER

SECTION A					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
	SANS 1200 A	SECTION A : PRELIMINARY AND GENERAL			
A1		Time related items			
A1.1		Health and safety:			
A1.2	8.2.2	General safety obligations	Month		
A1.3	8.2.2	Health and safety plan	Month		
A1.4		Temporary Traffic Control Facilities			
A1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
LA1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
A1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
LA1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
A1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
LA1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
A1.4.4	8.8.2	Short term lane closure	day		
A1.4.5	8.8.2	Short term lane closure	week		
A1.4.6	8.8.2	Short term lane closure	month		
A1.4.7	8.8.2	STOP/RV-GO Traffic Control	day		
A1.4.8	8.8.2	STOP/RV-GO Traffic Control	week		
A1.4.9	8.8.2	STOP/RV-GO Traffic Control	month		
A1.5	8.4.2.2	Facilities for the Contractor			

A1.5.1	8.3.2.2(e)	Ablution Facilities	day		
A1.5.2	8.3.2.2(e)	Ablution Facilities	week		
A1.5.3	8.3.2.2(e)	Ablution Facilities	month		
A1.5.4	8.4.5	Security	day		
A1.5.5	8.4.5	Security	week		
A1.5.6	8.4.5	Security	month		
A1.5.7	8.3.3	Supervision	day		
A1.5.8	8.3.3	Supervision	week		
A1.5.9	8.3.3	Supervision	month		
A2	8.7	Daywork			
A2.1		Labour			
A2.1.1		Unskilled labour	h		
LA2.1.1		Unskilled labour	h		
A2.1.2		Semi-skilled labour	h		
LA2.1.2		Semi-skilled labour	h		
A2.1.3		Skilled labour	h		
LA2.1.3		Skilled labour	h		
A2.2	8.5	Materials			
A2.2.1		Allow for net cost of materials used by Contractor for minor ancillary works	Provisional Sum	50 000,00	
A2.2.2		Percentage adjustment on Item A2.2.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.2.3		Allow for geotechnical testing by an accredited geotechnical laboratory where required by the Client	Provisional Sum	30 000,00	

A2.2.4		Percentage adjustment on Item A2.2.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.3	8.5	Plant			
A2.3.1		Plant used by Contractor for minor ancillary works			
A2.3.1.1		1-ton Bakkie	h		
A2.3.1.2		6m³ Tip Truck	h		
A2.3.1.3		Excavator	h		
A2.3.1.4		Digger / TLB	h		
A2.3.1.5		Truck (10 ton)	h		
A2.3.1.6		LDV	h		
A2.3.1.7		trailer (2,5 Ton)	h		
A2.3.1.8		Water pump	h		
A2.3.1.9		Compressor	h		
A2.3.1.10		Small plant	h		
A2.3.1.11		Overhead charges on items above	%		
A2.4	8.8.5	Cost of Survey			
A2.4.1	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – locate and record	Provisional Sum	20 000,00	
A2.4.2		Percentage adjustment on Item A2.4.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.4.3	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – protect and re-establish	Provisional Sum	20 000,00	
A2.4.4		Percentage adjustment on Item A2.4.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.5		Mentorship			

A2.5.1		Mentorship programs for Sub-Contractors	Provisional Sum	100 000,00	
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SECTION B					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION B: SITE CLEARANCE			
B1	SANS 1200 C	Site clearance			
	8.2.1	Clear and grub			
B1.1		Pipelines	m		
LB1.1		Pipelines	m		
B1.2		Remove and grub all trees and tree stumps regardless of the girth	m ²		
	8.22	Remove tree stumps with girth of			
		Over and up to			
B1.2.1		0.5 m 1.0 m	No		
LB1.2.1		0.5 m 1.0 m	No		
B1.3	8.2.12	Remove and re-erect / build existing fences / walls:			
B1.3.1		Devil fork	m		
LB1.3.1		Devil fork	m		
B1.3.2		Wooden fence up to 1.2 m high	m		
LB1.3.2		Wooden fence up to 1.2 m high	m		
B1.3.3		Wooden fence up to 1.8 m high	m		
LB1.3.3		Wooden fence up to 1.8 m high	m		
B1.3.4		Vibracrete wall	m		
LB1.3.4		Vibracrete wall	m		
B1.3.5		Brick wall up to 1.2 m high	m		

LB1.3.5		Brick wall up to 1.2 m high	m		
B1.3.6		Brick wall up to 1.8m high	m		
LB1.3.6		Brick wall up to 1.8m high	m		
B1.3.7		Mesh Fencing up to 1.2m high	m		
LB1.3.7		Mesh Fencing up to 1.2m high	m		
B1.3.8		Mesh Fencing up to 1.8m high	m		
LB1.3.8		Mesh Fencing up to 1.8m high	m		
B1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
LB1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
B1.4.1		Remove grass sods, store and maintain on site	m ²		
LB1.4.1		Remove grass sods, store and maintain on site	m ²		
B1.4.2		Lay grass sods from stockpile	m ²		
LB1.4.2		Lay grass sods from stockpile	m ²		
B1.4.3		Lay grass sods from commercial sources	m ²		
LB1.4.3		Lay grass sods from commercial sources	m ²		
B1.6	8.2.8	Demolish and remove miscellaneous structures:			
B1.6.1		Existing brick underground structure (1mx1mx1m)	No		
LB1.6.1		Existing brick underground structure (1mx1mx1m)	No		
B1.6.2		Existing boundary wall	m		
LB1.6.2		Existing boundary wall	m		
B1.6.3		Existing concrete structures	m ²		

LB1.6.3		Existing concrete structures	m ²		
B1.6.4		Existing precast kerbs	m		
LB1.6.4		Existing precast kerbs	m		
B1.6.5		Existing bitumen surfacing	m ²		
LB1.6.5		Existing bitumen surfacing	m ²		
B1.6.6		Existing concrete channel	m		
LB1.6.6		Existing concrete channel	m		
B1.6.7		Existing stone pitched stormwater channel	m		
LB1.6.7		Existing stone pitched stormwater channel	m		
B1.6.8		Existing pipeline (up to 450mm)	m		
LB1.6.8		Existing pipeline (up to 450mm)	m		
B1.7		Relocate existing wire fence to positions as indicated	m		
LB1.7		Relocate existing wire fence to positions as indicated	m		
B1.8		Lowering of water erf connections within road reserve	No		
LB1.8		Lowering of water erf connections within road reserve	No		
B1.9		Remove existing paving and stockpile on site	m ²		
LB1.9		Remove existing paving and stockpile on site	m ²		
B1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
LB1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
B1.11	8.3.5(a)	EXISTING SERVICES			

		Services that intersect a trench			
B1.11.1		Power / Communication Cables	m		
LB1.11.1		Power / Communication Cables	m		
B1.11.2		Pipelines	m		
LB1.11.2		Pipelines	m		
B1.11.3		Fences	m		
LB1.11.3		Fences	m		
B1.11.4		Kerbs	m		
LB1.11.4		Kerbs	m		
B1.11.5		Walls	m		
LB1.11.5		Walls	m		
B1.11.6		Manholes	No		
LB1.11.6		Manholes	No		
B1.11.7		Formal / informal structure	m		
LB1.11.7		Formal / informal structure	m		
B1.11.8		Poles	No		
LB1.11.8		Poles	No		
	8.3.5 (b)	Services that adjoin a trench:			
B1.11.9		Power / Communication Cables	m		
LB1.11.9		Power / Communication Cables	m		
B1.11.10		Pipelines	m		
LB1.11.10		Pipelines	m		
B1.11.11		Fences	m		

LB1.11.11		Fences	m		
B1.11.12		Kerbs	m		
LB1.11.12		Kerbs	m		
B1.11.13		Walls	m		
LB1.11.13		Walls	m		
B1.11.14		Manholes	No		
LB1.11.14		Manholes	No		
B1.11.15		Formal / informal structures	m		
LB1.11.15		Formal / informal structures	m		
B1.11.16		Poles	No		
LB1.11.16		Poles	No		
	1200 DM	Subgrade			
B2		Treatment of road-bed			
B2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
LB2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
B3		Earthworks			
B3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
LB3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
	SANS 1200 DM				
B3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		
LB3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		

B3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
LB3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
	SANS 1200 DB	Backfill			
B4	8.3.2(a)	Backfill, compact and dispose of surplus material for:			
B4.1		Pipes up to 160 mm dia:			
B4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.2		Pipes over 160mm up to 450 mm dia:			
B4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.3		Pipes over 450mm dia:			
B4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B5	SANS 1200 MK	Kerb and channeling			
B5.1	8.2.1	Precast concrete barrier kerb and channel where radius is:			
		Over and Up to			
B5.1.1		4 m 20 m	m		
LB5.1.1		4 m 20 m	m		

B5.1.2		20 m and straight	m		
LB5.1.2		20 m and straight	m		
B5.2	8.2.2	Precast mountable kerb and channel (CK1 / CK5) where radius is: Over and Up to			
B5.2.1		4 m 20 m	m		
LB5.2.1		4 m 20 m	m		
B5.2.2		20 m and straight	m		
LB5.2.2		20 m and straight	m		
B5.3		Precast edgings	m		
LB5.3		Precast edgings	m		
B5.4		Precast Barrier kerb	m		
LB5.4		Precast Barrier kerb	m		
B5.5		Precast channel	m		
LB5.5		Precast channel	m		
B5.6		Precast mountable kerb (MK10)	m		
LB5.6		Precast mountable kerb (MK10)	m		
B5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
LB5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
B6	SANS 1200 DM	Surface finishes			
B6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		
LB6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		

B6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
LB6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
B6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
LB6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
B6.4		Placing of concrete	m ³		
LB6.4		Placing of concrete	m ³		
B6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
LB6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
B6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
LB6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
B7	1200 DB 8.3.6.1	Reinstatement of road surfaces complete with all courses:			
B7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
LB7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
B7.2		150 mm G9 gravel lower selected layer	m ²		
LB7.2		150 mm G9 gravel lower selected layer	m ²		
B7.3		150 mm G7 gravel upper selected layer	m ²		
LB7.3		150 mm G7 gravel upper selected layer	m ²		
B7.4		150 mm G5 gravel subbase coarse	m ²		
LB7.4		150 mm G5 gravel subbase coarse	m ²		

B7.5		150 mm G4 gravel base coarse	m ²		
LB7.5		150 mm G4 gravel base coarse	m ²		
B7.6		30 mm asphalt	m ²		
LB7.6		30 mm asphalt	m ²		
B7.7		60mm interlocking concrete paver	m ²		
LB7.7		60mm interlocking concrete paver	m ²		
B7.8		60mm bevel concrete paver	m ²		
LB7.8		60mm bevel concrete paver	m ²		
B7.9		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.9		Concrete (150mm thick, 25 Mpa)	m ²		
	8.3.6.2	Extra-over DB 8.3.6.1 for imported material for:			
B7.10		150 mm G9 gravel lower selected layer	m ³		
LB7.10		150 mm G9 gravel lower selected layer	m ³		
B7.11		150 mm G7 gravel upper selected layer	m ³		
LB7.11		150 mm G7 gravel upper selected layer	m ³		
B7.12		150 mm G5 gravel subbase coarse	m ³		
LB7.12		150 mm G5 gravel subbase coarse	m ³		
B7.13		150 mm G4 gravel base coarse	m ³		
LB7.13		150 mm G4 gravel base coarse	m ³		
B7.14		30mm asphalt	m ³		
LB7.14		30mm asphalt	m ³		
B7.15		60mm interlocking concrete paver	m ²		

LB7.15		60mm interlocking concrete paver	m ²		
B7.16		60mm bevel concrete paver	m ²		
LB7.16		60mm bevel concrete paver	m ²		
B7.17		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.17		Concrete (150mm thick, 25 Mpa)	m ²		
B7.18	8.3.8	Cut bitumen layer	m		
LB7.18	8.3.8	Cut bitumen layer	m		

SECTION C					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION C: SEWER PIPE NETWORKS			
C1	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)			
	8.3.1	EXCAVATION			
	8.3.2(a)	Excavate in all materials for trenches, select, backfill, compact and dispose of all surplus material for main pipes with:			
		Diameter up to 250 mm for depths:			
		Over and Up to			
C1.1		0.5 m 1.0 m	m		
LC1.1		0.5 m 1.0 m	m		
C1.2		1.0 m 1.5 m	m		
LC1.2		1.0 m 1.5 m	m		
C1.3		1.5 m 2.0 m	m		
LC1.3		1.5 m 2.0 m	m		
C1.4		2.0 m 2.5 m	m		
LC1.4		2.0 m 2.5 m	m		
C1.5		2.5 m 3.0 m	m		
LC1.5		2.5 m 3.0 m	m		
C1.6		3.0 m 3.5 m	m		
LC1.6		3.0 m 3.5 m	m		
C1.7		3.5 m 4.0 m	m		
LC1.7		3.5 m 4.0 m	m		

C1.8		4.0 m 4.5 m	m		
LC1.8		4.0 m 4.5 m	m		
C1.9		4.5 m 5.0 m	m		
LC1.9		4.5 m 5.0 m	m		
	8.3.2(b)	Extra-over for item 8.3.2(a)			
C1.10		Hard rock excavation	m ³		
LC1.10		Hard rock excavation	m ³		
C1.11		Intermediate excavation	m ³		
LC1.11		Intermediate excavation	m ³		
C1.12	8.3.2(c)	Excavate unsuitable material from trench bottom	m ³		
LC1.12	8.3.2(c)	Excavate unsuitable material from trench bottom	m ³		
C1.13	8.3.8.1(c)	Hand excavation to expose existing services	m ³		
LC1.13	8.3.8.1(c)	Hand excavation to expose existing services	m ³		
C1.14	8.3.2(e)	Extra-over 8.3.2(a) for temporary stockpiling of material	m ³		
LC1.14	8.3.2(e)	Extra-over 8.3.2(a) for temporary stockpiling of material	m ³		
C2	8.3.3	EXCAVATION ANCILLARIES			
	8.3.3.1	Make up deficiency in backfill material			
C2.1	8.3.3.1	From commercial sources (G7) gravel material	m ³		
LC2.1	8.3.3.1	From commercial sources (G7) gravel material	m ³		
C2.2	8.3.3.3	Compaction in road reserves	m ³		
LC2.2	8.3.3.3	Compaction in road reserves	m ³		

C3		OVERHAUL			
C3.1		Limited overhaul		m ³	
LC3.1		Limited overhaul		m ³	
C3.2		Long overhaul		m ³ .km	
C4	8.3.4	Shoring of trenches where required			
		Over and Up to			
C4.1		0 m 1.5 m		m	
LC4.1		0 m 1.5 m		m	
C4.2		1.5 m 2.0 m		m	
LC4.2		1.5 m 2.0 m		m	
C4.3		2.0 m 2.5 m		m	
LC4.3		2.0 m 2.5 m		m	
C4.4		2.5 m 3.0 m		m	
LC4.4		2.5 m 3.0 m		m	
C4.5		3.0 m 3.5 m		m	
LC4.5		3.0 m 3.5 m		m	
C4.6		3.5 m 4.0 m		m	
LC4.6		3.5 m 4.0 m		m	
C4.7		4.0 m 4.5 m		m	
LC4.7		4.0 m 4.5 m		m	
C4.8		4.5 m 5.0 m		m	
LC4.8		4.5 m 5.0 m		m	
	SABS 1200 LB	BEDDING (PIPES)			

C5	8.2.2	Supply only of bedding by importation			
	8.2.2.3	Provision of bedding material compacted to 90% of MAASHTO density (100% of sand) with material from commercial sources			
C5.1		Selected granular material	m ³		
LC5.1		Selected granular material	m ³		
C5.2		Selected fill material	m ³		
LC5.2		Selected fill material	m ³		
C6		REMOVAL AND DISPOSING OF EXISTING PIPES			
C6.1	8.2.13	Remove and dispose existing 50mm to 100mm dia pipes at site designated by the contractor	m		
LC6.1	8.2.13	Remove and dispose existing 50mm to 100mm dia pipes at site designated by the contractor	m		
C6.2	8.2.13	Remove and dispose existing 150mm to 250mm dia pipes at site designated by the contractor	m		
LC6.2	8.2.13	Remove and dispose existing 150mm to 250mm dia pipes at site designated by the contractor	m		
C7	SABS 1200 LD	SEWER			
	8.2.1	Supply, lay, joint, bed Class C and test uPVC Class 34 sewer pipes:			
C7.1		110 mm dia	m		
LC7.1		110 mm dia	m		
C7.2		160 mm dia	m		
LC7.2		160 mm dia	m		
C7.3		200 mm dia	m		

LC7.3	200 mm dia	m		
C7.4	250 mm dia	m		
LC7.4	250 mm dia	m		
	Lay, joint, bed Class C and test uPVC Class 34 sewer pipes:			
C7.5	110 mm dia	m		
LC7.5	110 mm dia	m		
C7.6	160 mm dia	m		
LC7.6	160 mm dia	m		
C7.7	200 mm dia	m		
LC7.7	200 mm dia	m		
C7.8	250 mm dia	m		
LC7.8	250 mm dia	m		
	Extra-over item 8.2.1 for specials: Supply and install VJ Flanged adaptors			
C7.9	100 mm dia	No		
LC7.9	100 mm dia	No		
C7.10	150 mm dia	No		
LC7.10	150 mm dia	No		
C7.11	200 mm dia	No		
LC7.11	200 mm dia	No		
C7.12	250 mm dia	No		
LC7.12	250 mm dia	No		
C8	MANHOLES			

		Supply, install concrete ring manholes complete with 1 000 mm chamber and shaft with type 2A Polymer cover and frame for depths:				
		Over and Up to				
C8.1		0.5 m 1.0 m	No			
LC8.1		0.5 m 1.0 m	No			
C8.2		1.0 m 1.5 m	No			
LC8.2		1.0 m 1.5 m	No			
C8.3		1.5 m 2.0 m	No			
LC8.3		1.5 m 2.0 m	No			
C8.4		2.0 m 2.5 m	No			
LC8.4		2.0 m 2.5 m	No			
C8.5		2.5 m 3.0 m	No			
LC8.5		2.5 m 3.0 m	No			
C8.6		3.0 m 3.5 m	No			
LC8.6		3.0 m 3.5 m	No			
C8.7		3.5 m 4.0 m	No			
LC8.7		3.5 m 4.0 m	No			
C8.8		4.0 m 4.5 m	No			
LC8.8		4.0 m 4.5 m	No			
C8.9	8.2.3	4.5 m 5.0 m	No			
LC8.9	8.2.3	4.5 m 5.0 m	No			
		E.O item 8.2.3 for the supply of:				

C8.10		Concrete cover and frames	No		
C8.11		Cast iron cover and frames	No		
C8.12		Supply and install concrete cover and frames in concrete slabs for pump station sumps	m ³		
LC8.12		Supply and install concrete cover and frames in concrete slabs for pump station sumps	m ³		
C8.13	8.2.14	Demolish existing manhole/structures and dispose of material	No		
LC8.13	8.2.14	Demolish existing manhole/structures and dispose of material	No		
C8.14	8.2.15	Benching (where only benching is required, not paid separately for construction of manholes)	m ³		
LC8.14	8.2.15	Benching (where only benching is required, not paid separately for construction of manholes)	m ³		
C9		ERF CONNECTIONS			
	8.2.6	Erf connections:			
C9.1		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 110mm dia UPVC pipe	No		
LC9.1		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 110mm dia UPVC pipe	No		
C9.2		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 160mm dia UPVC pipe	No		
LC9.2		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 160mm dia UPVC pipe	No		
C9.3		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 200mm dia UPVC pipe	No		
LC9.3		Supply fittings and pipes, reconnect existing 100/110mm dia house connection to 200mm dia UPVC pipe	No		



PROJECT 4: BUILDING WORKS

SECTION A					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
	SANS 1200 A	SECTION A: PRELIMINARY AND GENERAL			
A1		Time related items			
A1.1		Health and safety:			
A1.2	8.2.2	General safety obligations	Month		
A1.3	8.2.2	Health and safety plan	Month		
A1.4		Temporary Traffic Control Facilities			
A1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
LA1.4.1	8.8.2	Fixed Site – Work on Shoulder	day		
A1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
LA1.4.2	8.8.2	Fixed Site – Work on Shoulder	week		
A1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
LA1.4.3	8.8.2	Fixed Site – Work on Shoulder	month		
A1.4.4	8.8.2	Short term lane closure	day		
A1.4.5	8.8.2	Short term lane closure	week		
A1.4.6	8.8.2	Short term lane closure	month		
A1.4.7	8.8.2	STOP/RV-GO Traffic Control	day		
A1.4.8	8.8.2	STOP/RV-GO Traffic Control	week		
A1.4.9	8.8.2	STOP/RV-GO Traffic Control	month		
A1.5	8.4.2.2	Facilities for the Contractor			

A1.5.1	8.3.2.2(e)	Ablution Facilities	day		
A1.5.2	8.3.2.2(e)	Ablution Facilities	week		
A1.5.3	8.3.2.2(e)	Ablution Facilities	month		
A1.5.4	8.4.5	Security	day		
A1.5.5	8.4.5	Security	week		
A1.5.6	8.4.5	Security	month		
A1.5.7	8.3.3	Supervision	day		
A1.5.8	8.3.3	Supervision	week		
A1.5.9	8.3.3	Supervision	month		
A2	8.7	Daywork			
A2.1		Labour			
A2.1.1		Unskilled labour	h		
LA2.1.1		Unskilled labour	h		
A2.1.2		Semi-skilled labour	h		
LA2.1.2		Semi-skilled labour	h		
A2.1.3		Skilled labour	h		
LA2.1.3		Skilled labour	h		
A2.2	8.5	Materials			
A2.2.1		Allow for net cost of materials used by Contractor for minor ancillary works	Provisional Sum	50 000,00	
A2.2.2		Percentage adjustment on Item A2.2.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.2.3		Allow for geotechnical testing by an accredited geotechnical laboratory where required by the Client	Provisional Sum	30 000,00	

A2.2.4		Percentage adjustment on Item A2.2.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.3	8.5	Plant			
A2.3.1		Plant used by Contractor for minor ancillary works			
A2.3.1.1		1-ton Bakkie	h		
A2.3.1.2		6m³ Tip Truck	h		
A2.3.1.3		Excavator	h		
A2.3.1.4		Digger / TLB	h		
A2.3.1.5		Truck (10 ton)	h		
A2.3.1.6		LDV	h		
A2.3.1.7		Trailer (2,5 Ton)	h		
A2.3.1.8		Water pump	h		
A2.3.1.9		Compressor	h		
A2.3.1.10		Small plant	h		
A2.3.1.11		Overhead charges on items above	%		
A2.4	8.8.5	Cost of Survey			
A2.4.1	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – locate and record	Provisional Sum	20 000,00	
A2.4.2		Percentage adjustment on Item A2.4.1 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.4.3	8.8.5(a)	Allow for Trigonometrical survey and plot boundary pegs – protect and re-establish	Provisional Sum	20 000,00	
A2.4.4		Percentage adjustment on Item A2.4.3 for Contractor's overheads and profit (State % and extend as an amount)	%		
A2.5		Mentorship			

A2.5.1		Mentorship programs for Sub-Contractors	Provisional Sum	100 000,00	
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SECTION B					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
		SECTION B: SITE CLEARANCE			
B1	SANS 1200 C	Site clearance			
	8.2.1	Clear and grub			
B1.1		Pipelines	m		
LB1.1		Pipelines	m		
B1.2		Remove and grub all trees and tree stumps regardless of the girth	m ²		
	8.22	Remove tree stumps with girth of			
		Over and up to			
B1.2.1		0.5 m 1.0 m	No		
LB1.2.1		0.5 m 1.0 m	No		
B1.3	8.2.12	Remove and re-erect / build existing fences / walls:			
B1.3.1		Devil fork	m		
LB1.3.1		Devil fork	m		
B1.3.2		Wooden fence up to 1.2 m high	m		
LB1.3.2		Wooden fence up to 1.2 m high	m		
B1.3.3		Wooden fence up to 1.8 m high	m		
LB1.3.3		Wooden fence up to 1.8 m high	m		
B1.3.4		Vibracrete wall	m		
LB1.3.4		Vibracrete wall	m		
B1.3.5		Brick wall up to 1.2 m high	m		

LB1.3.5		Brick wall up to 1.2 m high	m		
B1.3.6		Brick wall up to 1.8m high	m		
LB1.3.6		Brick wall up to 1.8m high	m		
B1.3.7		Mesh Fencing up to 1.2m high	m		
LB1.3.7		Mesh Fencing up to 1.2m high	m		
B1.3.8		Mesh Fencing up to 1.8m high	m		
LB1.3.8		Mesh Fencing up to 1.8m high	m		
B1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
LB1.4	8.2.10	Remove 150 mm topsoil from road reserves to stockpile and maintain	m ³		
B1.4.1		Remove grass sods, store and maintain on site	m ²		
LB1.4.1		Remove grass sods, store and maintain on site	m ²		
B1.4.2		Lay grass sods from stockpile	m ²		
LB1.4.2		Lay grass sods from stockpile	m ²		
B1.4.3		Lay grass sods from commercial sources	m ²		
LB1.4.3		Lay grass sods from commercial sources	m ²		
B1.6	8.2.8	Demolish and remove miscellaneous structures:			
B1.6.1		Existing brick underground structure (1mx1mx1m)	No		
LB1.6.1		Existing brick underground structure (1mx1mx1m)	No		
B1.6.2		Existing boundary wall	m		
LB1.6.2		Existing boundary wall	m		
B1.6.3		Existing concrete structures	m ²		

LB1.6.3		Existing concrete structures	m ²		
B1.6.4		Existing precast kerbs	m		
LB1.6.4		Existing precast kerbs	m		
B1.6.5		Existing bitumen surfacing	m ²		
LB1.6.5		Existing bitumen surfacing	m ²		
B1.6.6		Existing concrete channel	m		
LB1.6.6		Existing concrete channel	m		
B1.6.7		Existing stone pitched stormwater channel	m		
LB1.6.7		Existing stone pitched stormwater channel	m		
B1.6.8		Existing pipeline (up to 450mm)	m		
LB1.6.8		Existing pipeline (up to 450mm)	m		
B1.7		Relocate existing wire fence to positions as indicated	m		
LB1.7		Relocate existing wire fence to positions as indicated	m		
B1.8		Lowering of water erf connections within road reserve	No		
LB1.8		Lowering of water erf connections within road reserve	No		
B1.9		Remove existing paving and stockpile on site	m ²		
LB1.9		Remove existing paving and stockpile on site	m ²		
B1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
LB1.10	8.2.13	Remove and replace topsoil from trench excavation	m ³		
B1.11	8.3.5(a)	EXISTING SERVICES			

		Services that intersect a trench			
B1.11.1		Power / Communication Cables	m		
LB1.11.1		Power / Communication Cables	m		
B1.11.2		Pipelines	m		
LB1.11.2		Pipelines	m		
B1.11.3		Fences	m		
LB1.11.3		Fences	m		
B1.11.4		Kerbs	m		
LB1.11.4		Kerbs	m		
B1.11.5		Walls	m		
LB1.11.5		Walls	m		
B1.11.6		Manholes	No		
LB1.11.6		Manholes	No		
B1.11.7		Formal / informal structure	m		
LB1.11.7		Formal / informal structure	m		
B1.11.8		Poles	No		
LB1.11.8		Poles	No		
	8.3.5 (b)	Services that adjoin a trench:			
B1.11.9		Power / Communication Cables	m		
LB1.11.9		Power / Communication Cables	m		
B1.11.10		Pipelines	m		
LB1.11.10		Pipelines	m		
B1.11.11		Fences	m		

LB1.11.11		Fences	m		
B1.11.12		Kerbs	m		
LB1.11.12		Kerbs	m		
B1.11.13		Walls	m		
LB1.11.13		Walls	m		
B1.11.14		Manholes	No		
LB1.11.14		Manholes	No		
B1.11.15		Formal / informal structures	m		
LB1.11.15		Formal / informal structures	m		
B1.11.16		Poles	No		
LB1.11.16		Poles	No		
	1200 DM	Subgrade			
B2		Treatment of road-bed			
B2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
LB2.1	8.3.3(a)	Rip and recompact embankment material to 90% of MAMDD (100% for sand) to a depth of 150 mm	m ³		
B3		Earthworks			
B3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
LB3.1	8.3.4	Cut to fill and compact to 90% of MAMDD	m ³		
	SANS 1200 DM				
B3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		
LB3.2	8.3.7	Cut to spoil in-situ material from excavations	m ³		

B3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
LB3.3	1200 DB 8.3.3.1(c)	Make up deficiency in backfill material by importation from commercial sources selected by the Contractor	m ³		
	SANS 1200 DB	Backfill			
B4	8.3.2(a)	Backfill, compact and dispose of surplus material for:			
B4.1		Pipes up to 160 mm dia:			
B4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.1.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.2		Pipes over 160mm up to 450 mm dia:			
B4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.2.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B4.3		Pipes over 450mm dia:			
B4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
LB4.3.1		G7 material compacted to 93% MAMDD from commercial sources	m ³		
B5	SANS 1200 MK	Kerb and channeling			
B5.1	8.2.1	Precast concrete barrier kerb and channel where radius is:			
		Over and Up to			
B5.1.1		4 m 20 m	m		
LB5.1.1		4 m 20 m	m		

B5.1.2		20 m and straight	m		
LB5.1.2		20 m and straight	m		
B5.2	8.2.2	Precast mountable kerb and channel (CK1 / CK5) where radius is: Over and Up to			
B5.2.1		4 m 20 m	m		
LB5.2.1		4 m 20 m	m		
B5.2.2		20 m and straight	m		
LB5.2.2		20 m and straight	m		
B5.3		Precast edgings	m		
LB5.3		Precast edgings	m		
B5.4		Precast Barrier kerb	m		
LB5.4		Precast Barrier kerb	m		
B5.5		Precast channel	m		
LB5.5		Precast channel	m		
B5.6		Precast mountable kerb (MK10)	m		
LB5.6		Precast mountable kerb (MK10)	m		
B5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
LB5.7		Extra-over Items B5.1 to B5.2 for transitional kerb in 2 m lengths	No		
B6	SANS 1200 DM	Surface finishes			
B6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		
LB6.1	8.3.13(a)	Placing of topsoil from stockpile, 100 mm thick on verges and banks	m ²		

B6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
LB6.2	1200 LD 8.2.12	Adjust manhole cover and frame to be flush with new roadway surface	No		
B6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
LB6.3		Supply and construct 100 mm gravel wearing course (G7 2% cement stabilized) from commercial sources	m ³		
B6.4		Placing of concrete	m ³		
LB6.4		Placing of concrete	m ³		
B6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
LB6.5	PS DB 8.3.5.8	Reinstate gardens	m ²		
B6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
LB6.6	PS DB 8.3.5.7	Remove and reinstate existing grass area	m ²		
B7	1200 DB 8.3.6.1	Reinstatement of road surfaces complete with all courses:			
B7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
LB7.1		Single surface treatment with 30 mm hot mix asphalt	m ²		
B7.2		150 mm G9 gravel lower selected layer	m ²		
LB7.2		150 mm G9 gravel lower selected layer	m ²		
B7.3		150 mm G7 gravel upper selected layer	m ²		
LB7.3		150 mm G7 gravel upper selected layer	m ²		
B7.4		150 mm G5 gravel subbase coarse	m ²		
LB7.4		150 mm G5 gravel subbase coarse	m ²		

B7.5		150 mm G4 gravel base coarse	m ²		
LB7.5		150 mm G4 gravel base coarse	m ²		
B7.6		30 mm asphalt	m ²		
LB7.6		30 mm asphalt	m ²		
B7.7		60mm interlocking concrete paver	m ²		
LB7.7		60mm interlocking concrete paver	m ²		
B7.8		60mm bevel concrete paver	m ²		
LB7.8		60mm bevel concrete paver	m ²		
B7.9		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.9		Concrete (150mm thick, 25 Mpa)	m ²		
	8.3.6.2	Extra-over DB 8.3.6.1 for imported material for:			
B7.10		150 mm G9 gravel lower selected layer	m ³		
LB7.10		150 mm G9 gravel lower selected layer	m ³		
B7.11		150 mm G7 gravel upper selected layer	m ³		
LB7.11		150 mm G7 gravel upper selected layer	m ³		
B7.12		150 mm G5 gravel subbase coarse	m ³		
LB7.12		150 mm G5 gravel subbase coarse	m ³		
B7.13		150 mm G4 gravel base coarse	m ³		
LB7.13		150 mm G4 gravel base coarse	m ³		
B7.14		30mm asphalt	m ³		
LB7.14		30mm asphalt	m ³		
B7.15		60mm interlocking concrete paver	m ²		

LB7.15		60mm interlocking concrete paver	m ²		
B7.16		60mm bevel concrete paver	m ²		
LB7.16		60mm bevel concrete paver	m ²		
B7.17		Concrete (150mm thick, 25 Mpa)	m ²		
LB7.17		Concrete (150mm thick, 25 Mpa)	m ²		
B7.18	8.3.8	Cut bitumen layer	m		
LB7.18	8.3.8	Cut bitumen layer	m		

SECTION C					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
C1		SECTION C: BUILDING WORK			
		Brick wall to be built in accordance with detail provided by the Client			
C1.1	1200 D 8.3.3	Hand excavation for strip foundation	m ³		
LC1.1	1200 D 8.3.3	Hand excavation for strip foundation	m ³		
C1.2	1200 GB 8.2.5.1(b)	Place 15 Mpa concrete floor 150mm thick	m ²		
LC1.2	1200 GB 8.2.5.1(b)	Place 15 Mpa concrete floor 150mm thick	m ²		
C1.3	1200 LE 8.2.9 (a)	Build 220mm clay brick wall, plastered on the inside and outside (brickforce etc.). *Material supplied by Contractor	m ²		
LC1.3	1200 LE 8.2.9 (a)	Build 220mm clay brick wall, plastered on the inside and outside (brickforce etc.). *Material supplied by Contractor	m ²		
C1.4	1200 LE 8.2.9 (a)	Build 110mm clay brick wall, plastered on the inside and outside (brickforce etc.). *Material supplied by Contractor	m ²		
LC1.4	1200 LE 8.2.9 (a)	Build 110mm clay brick wall, plastered on the inside and outside (brickforce etc.). *Material supplied by Contractor	m ²		

SECTION D					
Item No	Payment Clause	Description	Unit	Rate (R.c)	
				All Inclusive	Labour Only
D1		SECTION D : RETAINING WALLS			
		Retaining walls			
D1.1	1200 D 8.3.3	Excavate for foundations	m ³		
LD1.1	1200 D 8.3.3	Excavate for foundations	m ³		
D1.2	1200 GB 8.2.5.1(b)	20 MPa concrete to foundations	m ³		
LD1.2	1200 GB 8.2.5.1(b)	20 MPa concrete to foundations	m ³		
D1.3		Install Concrete Retaining Blocks (CRB's) including placing of fill material in the blocks (concrete to bottom 3 blocks,G7 to balance of blocks, including backfill to 250 mm behind blocks	m ²		
LD1.3		Install Concrete Retaining Blocks (CRB's) including placing of fill material in the blocks (concrete to bottom 3 blocks,G7 to balance of blocks, including backfill to 250 mm behind blocks	m ²		
D1.4	1200 DK 8.2.4	Place geotextile to back of wall	m ²		
LD1.4	1200 DK 8.2.4	Place geotextile to back of wall	m ²		
D1.5		Install perforated 100 Ø pipe encased in 19 mm stone, wrapped in bidim	m		
D1.5		Install perforated 100 Ø pipe encased in 19 mm stone, wrapped in bidim	m		

PROJECT SUMMARY

SUMMARY	
Description	Amount (VAT EXCL.)
Project 1: Roads and Stormwater	
Project 2: Water	
Project 3: Sewer	
Project 4: Building Works	
SUB-TOTAL (VAT EXCL.)	
VAT 15%	
TOTAL (VAT INCL.)	