PROCUREMENT REFERENCE NO: **W/ONB/KRC-03/2025**

FRANSFONTEIN SETTLEMENT - ERADICATION OF THE BUCKET SYSTEM: CONSTRUCTION OF TOILETS, SERVICE CONNECTIONS, GRAVITY SEWER NETWORKS AND THE REHABILITATION OF A SEWER PUMP STATION

PHASE 3

SUMMARY OF SCHEDULE OF QUANTITIES

PART 1: GENERAL	N$: _____
PART 2: SEWER NETWORK	N$: _____
PART 3: WATER RETICULATION	N$: _____
PART 4: TOILETS (Brick & Mortar)	N$: _____
PART 5: SEWER PUMP STATION	N$: _____
PART 6: SEWER UPGRADE	N$: _____
SUB - TOTAL EXCLUDING CONTINGENCIES	**N$:** _____
ADD 5% CONTINGENCIES	N$: _____
SUB - TOTAL INCLUDING CONTINGENCIES	**N$:** _____
ADD 15% VAT	N$: _____
TOTAL CONTRACT AMOUNT (VAT INCL.)	**N$:** _____

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		PART 1: GENERAL				
		SABS 1200 A: GENERAL				
	8.3	**SCHEDULED FIXED-CHARGES AND VALUE RELATED ITEMS**				
1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establishment of Facilities on the Site:				
1.2	8.3.2.1	Facilities for the Engineer	Sum	1		
1.3	8.3.2.2	Facilities for the Contractor	Sum	1		
1.4	8.3.3	Other Fixed-charge obligations	Sum	1		
1.5	8.3.4	Removal of Site Establishment on Completion	Sum	1		
1.6		Contract Sign Boards	No	1		
	8.4	**SCHEDULED TIME-RELATED CHARGES FOR THE DURATION OF THE PROJECT**				
1.7	8.4.1	Contractual requirements	Sum	1		
	8.4.2	Operation and Maintenance of Facilities on Site for the duration of Construction:				
1.8	8.4.2.1	Facilities for Engineer	Sum	1		
1.9	8.4.2.2	Facilities for Contractor	Sum	1		
1.10	8.4.3	Supervision for duration of Construction	Sum	1		
1.11		Company and Head Office Overhead Cost for the duration of Construction	Sum	1		
1.12	8.4.5	Other Time-related Obligations	Sum	1		
	8.5	**SUMS STATED PROVISIONALLY BY ENGINEER**				
1.13		Additional tests ordered by the Engineer	PS	1	20,000.00	20,000.00
1.14		Overheads, Charges and profit on 1.3.1 above	%	20,000.00		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.8	**TEMPORARY WORKS**				
1.15	8.8.2	Dealing and Accommodation of Traffic	Sum	1		
	8.8.4	Existing services				
1.16	c)	Excavation by hand in soft material to expose	m^3	50		
1.17	d)	Temporary protection of services	PS	1	50,000.00	50,000.00
	8.8.5	Cost of Survey in Terms of the Land Survey Act (See sections PS12)				
1.18		Trigonometrical Survey and Plot Boundary Pegs - Protect and Re-establish	Sum	1		
1.19		Clearing of site of all concrete and other foreign including loading, transportation and disposing of material at a minicipal dump site	m^3	50		
PART 1: GENERAL : CARRIED FORWARD TO SUMMARY						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		PART 2: SEWER NETWORK				
		SECTION 2.1: SITE CLEARANCE				
		SANS 1200 C: SITE CLEARANCE				
	8.3.2	**CLEAR AND GRUB**				
		Clear and grub sewer lines				
2.1.1		Pipe routes (2m wide)	m	3,161.00		
	8.2.2	**REMOVE AND GRUB LARGE TREES AND TREE STUMPS OF GIRTH:**				
2.1.2		Over 1 m and up to and including 2 m	No	8		
		SECTION 2.2: EARTHWORKS (PIPE TRENCHES)				
		SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)				
	8.3.2	**EXCAVATION**				
	(a)	**EXCAVATE IN ALL MATERIALS FOR TRENCHES, BACKFILL, COMPACT AND DISPOSE OF SURPLUS MATERIAL FOR:**				
		uPVC Sewer Pipes over 100 up to 200 mm diameter (Main Lines) for trench depths:				
2.2.1		Exceeding 0.0 m but not 1.0 m	m	300		
2.2.2		Exceeding 1.0 m but not 1.5 m	m	420		
2.2.3		Exceeding 1.5 m but not 2.0 m	m	526		
2.2.4		Exceeding 2.0 m but not 2.5 m	m	634		
2.2.5		Exceeding 2.5 m but not 3.0 m	m	554		
2.2.6		Exceeding 3.0 m but not 3.5 m	m	500		
2.2.7		Exceeding 3.5 m but not 4.0 m	m	227		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		uPVC Sewer Pipes over 100 up to 200 mm diam. (Erf Connections) for trench depths:				
2.2.8		Exceeding 0.0 m but not 1.0 m	m	152		
2.2.9		Exceeding 1.0 m but not 1.5 m	m	340		
2.2.10		Exceeding 1.5 m but not 2.0 m	m	340		
	(b)	**EXTRA-OVER FOR ITEM 8.3.2 (a) ABOVE FOR:**				
2.2.11		Hard Rock Excavation (Includes spoiling from site oversized pieces not suitable for backfill)	m^3	759		
	(c)	**EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL FROM TRENCH BOTTOM**				
2.2.12		Excavate and dispose of unsuitable material from trench bottom	m^3	456		
	8.3.3	**EXCAVATION ANCILLARIES**				
	8.3.3.1	**MAKE UP DEFICIENCY IN BACKFILL MATERIAL (PROVISIONAL)**				
2.2.13	(a)	from other necessary excavations from borrow pits identified by Contractor	m^3	456		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 2.3: SEWERS				
		SANS 1200 LD: SEWERS				
	8.2.1	**SUPPLY, LAY, JOINT BED AND TEST**				
		uPVC Mainlite sewer pipes SABS1601, "Heavy Duty" Solid Wall with 400 kPa hoop strength and Z-LOK socket ends with the following diameters:				
		Main Lines:				
2.3.1		200 mm Ø I.D. - Sewer line	m	1,079		
2.3.2		160 mm Ø I.D. - Sewer line	m	1,544		
2.3.3		110 mm Ø I.D. - Sewer line	m	538		
		House Connections:				
2.3.4		110 mm Ø I.D. - Sewer line	m	832		
	8.2.3	**MANHOLES**				
		Construct 30 MPa in situ concrete manholes complete as per drawings complete with Securex Y-600-D cover and frame, for the following depth ranges:				
2.3.5		Exceeding 0.0 m but not 1.0 m	No	4		
2.3.6		Exceeding 1.0 m but not 1.5 m	No	15		
2.3.7		Exceeding 1.5 m but not 2.0 m	No	15		
2.3.8		Exceeding 2.0 m but not 2.5 m	No	15		
2.3.9		Exceeding 2.5 m but not 3.0 m	No	15		
2.3.10		Exceeding 3.0 m but not 3.5 m	No	10		
2.3.11		Exceeding 3.5 m but not 4.0 m	No	3		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.2.6	**ERF CONNECTIONS**				
		Construct 110 Ø uPVC Mainlite erf connection, on Sewer Main, complete with bends, y - junctions and air tight stopper. The trench excavations, bedding and pipe work is measured separately. (Includes cost of connection marker as detailed on drawings.)				
2.3.12	Double	Type 1	No	5		
2.3.13	Double	Type 2	No	5		
2.3.14	Single	Type 3	No	10		
2.3.15	Single	Type 4	No	10		
2.3.16	Double	Type 5	No	5		
2.3.17	Double	Type 6	No	5		
	8.2.7	**ENCASING OF PIPES IN CONCRETE**				
2.3.18		Concrete mix 20/19	m^3	4		
		ERF CONNECTION MARKER				
2.3.19		Erf connection markers shall be uPVC with concrete inside painted blue,sunk into the ground 400mm, the bottom connected to the end cap of the erf connection with a plastic, non-corrosive wire or	No.	105		
		RODDING EYE				
2.3.20		110Ø Cast Iron Rodding Eye complete as per typical details drawing	No	55		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 2.4: BEDDING (PIPES)				
		SANS 1200 LB: BEDDING (PIPES)				
	8.2.1	**PROVISION OF BEDDING**				
		From commercial sources				
2.4.1		Selected granular material for bedding cradle	m^3	137		
2.4.2		Selected fill material for bedding blanket	m^3	182		
PART 4: SEWER NETWORK: CARRIED FORWARD TO SUMMARY						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		PART 3: WATER RETICULATION				
		SECTION 3.1: SITE CLEARANCE				
		SANS 1200 C: SITE CLEARANCE				
	8.3.2	**CLEAR AND GRUB**				
		Clear and grub water lines				
3.1.1		Pipe routes (2m wide)	m	200.00		
		SECTION 3.2: EARTHWORKS (PIPE TRENCHES)				
		SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)				
	8.3.2	**EXCAVATION**				
	(a)	**EXCAVATE IN ALL MATERIALS FOR TRENCHES, BACKFILL, COMPACT AND DISPOSE OF SURPLUS MATERIAL FOR:**				
		Main Lines:				
		Up to 160 mm diam. for total trench depth:				
3.2.1		Exceeding 0,5 m but not 1,3 m	m	200		
		House Connections:				
		Up to 110 mm diam. for total trench depth:				
3.2.2		Exceeding 0,5 m but not 0,9 m	m	100		
	(b)	**EXTRA-OVER FOR ITEM 8.3.2 (a) ABOVE FOR:**				
3.2.3		Hard Rock Excavation (Includes spoiling from site oversized pieces not suitable for backfill)	m³	22		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	(c)	**EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL FROM TRENCH BOTTOM**				
3.2.4		Excavate and dispose of unsuitable material from trench bottom	m^3	7		
	8.3.3	**EXCAVATION ANCILLARIES**				
	8.3.3.1	**MAKE UP DEFICIENCY IN BACKFILL MATERIAL (PROVISIONAL)**				
3.2.5	(a)	from other necessary excavations on site	m^3	7		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 3.3: MEDIUM PRESSURE PIPELINES				
		SANS 1200 L: MEDIUM PRESSURE PIPELINES				
	8.2.1	**SUPPLY, LAY AND BED PIPES COMPLETE WITH COUPLINGS**				
		uPVC pipes Class 9: Supply, handle, lay, and bed, joint , test, and disinfect (potable water pipeline)				
3.3.1		160 mm Ø	m			
3.3.2		110 mm Ø	m			
		HDPE Class 10: Supply, handle, lay and bed, joint , test, and disinfect (potable water pipeline and erf connections)				
3.3.3		32 mm Ø	m	100		
3.3.4		25 mm Ø	m	100		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.2.2	**EXTRA OVER 8.2.1 FOR SUPPLYING, LAYING AND BEDDING OF SPECIALS COMPLETE WITH COUPLINGS**				
		Supply, lay, and bed Class 9 joint, incl. cut pipes to length where required, test and disinfect:				
		uPVC Pressure Bends				
3.3.5		160 mm Ø, 11.25°	No			
3.3.6		160 mm Ø, 22.5°	No			
3.3.7		160 mm Ø, 45°	No			
3.3.8		160 mm Ø, 90°	No			
3.3.9		110 mm Ø, 11.25°	No			
3.3.10		110 mm Ø, 22.5°	No			
3.3.11		110 mm Ø, 45°	No			
3.3.12		110 mm Ø, 90°	No			
		Cast Iron Equal Tees				
3.3.13		110 mm Ø Equal Tee	No			
3.3.14		160 mm Ø Equal Tee	No			
		Cast Iron Reducing Tees				
3.3.15		160 mm Ø x 110 mm Ø Reducing Tee	No			
		Cast Iron End Caps for				
3.3.16		160 mm Ø uPVC pipes	No			
3.3.17		110 mm Ø uPVC pipes	No			
		Cast Iron Hydrant Tees				
3.3.18		160 mm Ø x 80mm Ø	No			
3.3.19		110 mm Ø x 80mm Ø	No			
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.2.3	**VALVES**				
		Supply, in valve box (valve box measured separately) on concrete support, joint, incl. cut pipes where necessary, test, right hand closing, non-rising spindle, with cap top:				
		"AVK" Gate Valve PN 16 with "Wavisafe" socket ends for uPVC pipes or similar approved:				
3.3.20		160 mm Ø	No			
3.3.21		110 mm Ø	No			
		Fire Hydrants				
3.3.22		Supply and install CI fire hydrants, 65 mm bayonet connection, complete as per detail	No			
	8.2.11	**ANCHOR/THRUST BLOCKS AND PEDESTALS**				
3.3.23		Anchor / Thrust block and pedestals as per details	No			
	8.2.13	**VALVE AND HYDRANT CHAMBERS**				
		Construct Bell-Toby Type valve chambers complete				
3.3.24		For 75 mm Ø valves or greater:	No			
3.3.25		Marker blocks	No			
		Break into main. Excavate, backfill and dispose of surplus material and specials. (Fittings needed for connection measured seperately)				
3.3.26		110/160 mm diam. uPVC Water Main	No			
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 3.4: ERF CONNECTIONS (WATER)				
		SANS 1200 LF: ERF CONNECTIONS (WATER)				
	8.2.1	**PROVIDE ERF CONNECTIONS COMPLETE**				
		Provide erf connections complete, including all fittings, specials. Pipework measured seperately under items (3.2.4, 3.2.5 and 3.2.6)				
3.4.1		Single	No	50		
3.4.2		Double	No	25		
		Supply and install complete with all required fittings:				
3.4.3		20ND GMS pipework and fittings per toilet connection *(2 x vertical risers to 400mm above NGL complete with elbows, horizontal distance piece, fittings to fit water meter and ball valves, denso wrapped below NGL)*	No	100		
3.4.4		20mm Elster Kent M100 Optima multi-jet water meter *(or similar approved)*	No	100		
3.4.5		20mm brass ball valve with lever	No	100		
	8.2.7	**ERF CONNECTION MARKER**				
3.4.3		Erf connection markers shall be uPVC with concrete inside painted green,sunk into the ground 400mm, the bottom connected to the end cap of the erf connection with a plastic, non-corrosive wire or	No.	105		
	8.2.3	**SADDLES**				
3.4.4		110mm diameter x 32 /25 mm diameter	No.	100		
		SECTION 3.5: BEDDING (PIPES)				
		SANS 1200 LB: BEDDING (PIPES)				
	8.2.1	**PROVISION OF BEDDING FROM COMMERCIAL SOURCES**				
3.5.1		a) Selected granular material	m^3	10		
3.5.2		b) Selected fill material	m^3	30		
PART 3: WATER RETICULATION : CARRIED FORWARD TO SUMMARY						

ITEM	REF		UNIT	QTY	RATE	AMOUNT
		PART 4: TOILETS (Brick & Mortar)				
		SECTION 4.1: SITE CLEARANCE				
		SANS 1200 C: SITE CLEARANCE				
	8.3.2	**CLEAR AND GRUB**				
4.1.1		Toilet base area - [2.3 x 1.3]m	m²	86.71		
		SECTION 4.2: EARTHWORKS				
		SANS 1200 DM: EARTHWORKS (ROADS, SUBGRADE)				
	8.3.3	**TREATMENT OF ROADBED**				
4.2.1	(a)(1)	Rip and compact 150mm deep in-situ material to minimum of 93% of modified AASHTO max. density	m^3	14.5		
	8.3.5	**SELECTED LAYER**				
4.2.2	8.3.6	Construct 150 mm G6 Selected Subgrade Layer with material obtained from borrow pits compacted to 95% of modified AASHTO maximum density.	m^3	14.5		
	8.3.7	**CUT TO SPOIL**				
4.2.3		Cut to spoil or stockpile material below base of toilet	m^3	17.4		
		SECTION 4.3: CONCRETE				
		SANS 1200GA: CONCRETE (SMALL WORKS)				
	8.2	**FORMWORK**				
	8.2.3	Smooth vertical narrow widths:				
4.3.1		Slab edges	m	199.52		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.3	**REINFORCEMENT**				
	8.3.2	High-Tensile Welded Mesh:				
4.3.2		1. Mesh Ref. 395	m²	76.56		
	8.4	**CONCRETE**				
4.3.3	8.4.1	Class 25MPa/19mm concrete for toilet base	m³	15.718		
	8.4.4	Unformed surface finishes:				
4.3.3		1. Wood-float finish for top of slabs	m²	58		
		SECTION 4.4: BUILDING CONSTRUCTION				
		MASONRY WALLS				
4.4.1		110mm Brick walls (7MPa bricks with 15mm Mortar Joints)	m²	406.0		
4.4.2		One coat cement plaster to brick walls	m²	406.0		
4.4.3		DCP strip underneath brick walls	m²	406.0		
4.4.4		Prestressed concrete lintel (110mm x 76mm)	m	55.1		
		DOOR				
4.4.5		110 mm Steel single rebate Door frame 2032mmx813mm	No	29		
4.4.6		Solid timber door 2032x813mm (Brace & ledge).	No	29		
4.4.7		Standard mortice lock and lever	No	29		
		WINDOW				
4.4.8		NE1 Steel Window Frame	No	29		
4.4.9		3mm Obscured Glass and putty	No	29		
		ROOF				
4.4.10		Rafters 114mmx38mm SA Pine	m	145.00		
4.4.11		IBR Roof Sheeting 0.47mm Complete	m²	124.7		
		PAINTWORK				
		On Plaster:				
		Prepare and apply one coat alkali-resistant plaster primer, stop with Polycell Mendall 90, apply one coat undercoat and apply two coats Plascon Polvin Super Acrylic PVA on:				
4.4.13		External smooth plastered walls	m²	406.0		
4.4.14		Internal smooth plastered walls	m²	406.0		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		On Metal:				
		Touch up factory primer and apply one coat Plascon or other approved self etching primer and two coats "Plascon" or other approved water based enamel paint on :				
4.4.15		Pressed steel door frames	m²	29.0		
4.4.16		Steel window frames	m²	6.0		
		On Wood:				
		Prepare, knot, prime with one coat pink wood primer, stop with "Polycell Mendall 90" or other approved and apply one coat universal undercoat and two coats high gloss enamel paint on :				
4.4.17		Doors	m²	116.0		
4.4.18		Rafters	m²	45.0		
		SECTION 4.5: SANITARY FIXTURES				
4.5.1		Vitreous China WC Pan with integral P trap, (White)	No	29		
4.5.2		9 Litre Vitreous China cistern with standard float valve system and flushing pipe. (White)	No	29		
4.5.3		Stainless Steel Wash Basin. Top 455mm, Height 285mm Bottom 320mm	No	29		
		SECTION 4.6: SEWAGE CONNECTION				
4.6.1		Connect wash trough WC to 110mm uPVC erf conncetion complete with 50mm P-Trap for wash trough, 50mm uPVC pipework and all required fittings from wash trough to stub stack, 110mm stub stack complete with 50mm vent valve, 110mm vent horn bend and all other required fittings and specials to connect to erf conncetion pipe. 110mm uPVC erf connection piepwork measured elsewhere.	No	29		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 4.7: WATER CONNECTION				
4.7.1		15mm Bibtap, complete with galvanised mild steel pipework surface mount down wall, all required fittings to connect to 25mm HDPE erf connection. Including all fittings to connect cistern. HDPE pipe length measured elsewhere	No	29		
		SECTION 4.8: ELECTRICAL				
		DISTRIBUTION BOARD				
4.8.1		Surface mounted DB with free plate and blanking plates complete (waterproof)	No	29		
4.8.2		Calvanised conduit work for cable entry into DB, bracket every 500mm	No	29		
		CABLE				
4.8.3		4mm² x 2c PVDAC	m	435		
4.8.4		10mm² x BECW	m	435		
		CIRCUIT BREAKERS				
4.8.5		10A/SP/C13 complete with wiring installed in DB	No	58		
		LIGHTING				
4.8.6		Rubicon Lighting Saturn/80/50/15 (Black)	No	29		
4.8.7		Single lever, one way light switch	No	29		
4.8.8		Light point complete with galvanised conduit & 1.5mm² wiring	No	29		
PART 4: TOILETS: CARRIED FORWARD TO SUMMARY						

ITEM	REF		UNIT	QTY	RATE	AMOUNT
		PART 5: SEWER PUMP STATION				
		SECTION 5.1: MECHANICAL AND ELECTRICAL				
		SANS 1200 A: GENERAL				
	8.5	**SUMS STATED PROVISIONALLY BY ENGINEER**				
5.1.1		Provisional sum for Mechanical/Electrical installation for pumpstation by selected Sub-Contractor	PS	1	100,000.00	100,000.00
5.1.2		Overheads, Charges and profit on 7.1.1 above	%	100,000.00		
		SECTION 5.2: BUILDING MATERIALS AND WORKMANSHIP				
		Windows and doors:				
5.2.1		Steel double door (1680 x 2100)mm with louvres	No	1		
5.2.2		Replace glazing in existing windows complete (600 x 900)mm	No	2		
		Painting				
5.2.3		Prepare, stop, and prime with an approve plaster primer and apply one undercoat and two finishing coats of exterior PVA to all exterior walls	m²	40		
5.2.4		Prepare, stop, and prime with an approved plaster primer and apply one undercoat and two finishing coats of enamel to all interior walls	m²	40		
5.2.5		Prepare and apply one priming coat, one undercoat, and two coats of Matt Enamel to all steel doors, steel window frames and steel roof members	m²	8		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 5.3: FENCING				
5.3.1		Supply materials and erect 1.8 m high razor mesh fence complete to suit existing. Includes taking down and removing from site the damaged sections of existing fence to be replaced.	m	112		
PART 5: SEWER PUMP STATION: CARRIED FORWARD TO SUMMARY						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		PART 6: SEWER UPGRADE				
		SECTION 6.1: SITE CLEARANCE				
		SANS 1200 C: SITE CLEARANCE				
	8.3.2	**CLEAR AND GRUB**				
		Clear and grub sewer lines				
6.1.1		Pipe routes (2m wide)	m	370.00		
	8.2.2	**REMOVE AND GRUB LARGE TREES AND TREE STUMPS OF GIRTH:**				
6.1.2		Over 1 m and up to and including 2 m	No	10		
		SECTION 6.2: EARTHWORKS (PIPE TRENCHES)				
		SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)				
	8.3.2	**EXCAVATION**				
	(a)	**EXCAVATE IN ALL MATERIALS FOR TRENCHES, BACKFILL, COMPACT AND DISPOSE OF SURPLUS MATERIAL FOR:**				
		uPVC Sewer Pipes over 100 up to 200 mm diameter (Main Lines) for trench depths:				
6.1.3		Exceeding 0.0 m but not 1.0 m	m	100		
6.1.4		Exceeding 1.0 m but not 1.5 m	m	100		
6.1.5		Exceeding 1.5 m but not 2.0 m	m	50		
6.1.6		Exceeding 2.0 m but not 2.5 m	m	50		
6.1.7		Exceeding 2.5 m but not 3.0 m	m	50		
6.1.8		Exceeding 3.0 m but not 3.5 m	m	20		
6.1.9		Exceeding 3.5 m but not 4.0 m	m			
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		uPVC Sewer Pipes over 100 up to 200 mm diam. (Erf Connections) for trench depths:				
6.1.9		Exceeding 0.0 m but not 1.0 m	m	35		
6.1.10		Exceeding 1.0 m but not 1.5 m	m	40		
6.1.11		Exceeding 1.5 m but not 2.0 m	m	40		
	(b)	**EXTRA-OVER FOR ITEM 8.3.2 (a) ABOVE FOR:**				
6.1.12		Hard Rock Excavation (Includes spoiling from site oversized pieces not suitable for backfill)	m^3	89		
	(c)	**EXCAVATE AND DISPOSE OF UNSUITABLE MATERIAL FROM TRENCH BOTTOM**				
6.1.13		Excavate and dispose of unsuitable material from trench bottom	m^3	54		
	8.3.3	**EXCAVATION ANCILLARIES**				
	8.3.3.1	**MAKE UP DEFICIENCY IN BACKFILL MATERIAL (PROVISIONAL)**				
6.1.14	(a)	from other necessary excavations from borrow pits identified by Contractor	m^3	54		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 6.3: SEWERS				
		SANS 1200 LD: SEWERS				
	8.2.1	**SUPPLY, LAY, JOINT BED AND TEST**				
		uPVC Mainlite sewer pipes SABS1601, "Heavy Duty" Solid Wall with 400 kPa hoop strength and Z-LOK socket ends with the following diameters:				
		Main Lines:				
6.1.15		200 mm Ø I.D. - Sewer line	m	310		
6.1.16		160 mm Ø I.D. - Sewer line	m	0		
6.1.17		110 mm Ø I.D. - Sewer line	m	10		
		House Connections:				
6.1.18		110 mm Ø I.D. - Sewer line	m	100		
	8.2.3	**MANHOLES**				
		Construct 30 MPa in situ concrete manholes complete as per drawings complete with Securex Y-600-D cover and frame, for the following depth ranges:				
6.1.19		Exceeding 0.0 m but not 1.0 m	No	2		
6.1.20		Exceeding 1.0 m but not 1.5 m	No	2		
6.1.21		Exceeding 1.5 m but not 2.0 m	No	2		
6.1.22		Exceeding 2.0 m but not 2.5 m	No	2		
6.1.23		Exceeding 2.5 m but not 3.0 m	No	2		
6.1.24		Exceeding 3.0 m but not 3.5 m	No	2		
6.1.25		Exceeding 3.5 m but not 4.0 m	No	1		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
	8.2.6	**ERF CONNECTIONS**				
		Construct 110 Ø uPVC Mainlite erf connection, on Sewer Main, complete with bends, y - junctions and air tight stopper. The trench excavations, bedding and pipe work is measured separately. (Includes cost of connection marker as detailed on drawings.)				
6.1.26	Double	Type 1	No	2		
6.1.27	Double	Type 2	No	2		
6.1.28	Single	Type 3	No	2		
6.1.29	Single	Type 4	No	2		
6.1.30	Double	Type 5	No	2		
6.1.31	Double	Type 6	No	2		
	8.2.7	**ENCASING OF PIPES IN CONCRETE**				
6.1.32		Concrete mix 20/19	m^3	4		
		ERF CONNECTION MARKER				
6.1.33		Erf connection markers shall be uPVC with concrete inside painted blue,sunk into the ground 400mm, the bottom connected to the end cap of the erf connection with a plastic, non-corrosive wire		30		
		RODDING EYE				
6.1.34		110Ø Cast Iron Rodding Eye complete as per typical details drawing	No	30		
CARRIED FORWARD						

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
		SECTION 6.4: BEDDING (PIPES)				
		SANS 1200 LB: BEDDING (PIPES)				
	8.2.1	**PROVISION OF BEDDING**				
		From commercial sources				
6.1.35		Selected granular material for bedding cradle	m^3	25		
6.1.36		Selected fill material for bedding blanket	m^3	34		
	PS 5	**SECTION 6.5: UPGRADE OF SEWER**				
		SANS 1200 LB: BEDDING (PIPES)				
		Expose and removal of the existing seweline				
6.1.37		Removal of the existing pipeline	m	310		
6.1.38		Breaking into the exiting manholes	No	4		
6.1.39		Temporary sewer bypass while upgrading the sewerline, proposed method to be approved by Eng.	Sum	1		
PART 6: SEWER UPGRADE: CARRIED FORWARD TO SUMMARY						