

<div> <div>RFQ No.:</div> <div>#REF!</div> <div>KLIPFONTEIN VIEW METER CONNECTION</div> </div> <div> <div>Description:</div> <div>Installation of meter connection at klipfontein view</div> <div>SCHEDULE E: Civil</div> </div>						
Item No	Payment Refers	Description	Unit	Qty	Rate	Amount
E1	SANS 1200 C	SECTION C: SITE CLEARANCE				
		1) Meter chamber				
E1.1	8.2.1	Clear and grub	ha	0,00498		
E1.2	8.2.4	Reclear surfaces (only on instructions from the engineer)	ha	0,00249		
E1.2.1	8.2.8	<u>Demolish and remove structures/buildings and dismantle steelworks, etc</u>				
E1.2.3		Existing brick chamber with reinforced concrete base and roofslab	Sum	-		
E1.3	8.2.10	Remove topsoil to nominal depth of 150mm and stockpile	m ³	3		
		2) H21 valve chamber				
E1.1	8.2.1	Clear and grub	ha	0,00257		
E1.2	8.2.4	Reclear surfaces (only on instructions from the engineer)	ha	0,00128		
E1.2.1	8.2.8	<u>Demolish and remove structures/buildings and dismantle steelworks, etc</u>				
E1.2.3		Existing brick chamber with reinforced concrete base and roofslab	Sum	-		
E1.3	8.2.10	Remove topsoil to nominal depth of 150mm and stockpile	m ³	2		
		3) H27 valve chamber				
E1.1	8.2.1	Clear and grub	ha	0,00331		
E1.2	8.2.4	Reclear surfaces (only on instructions from the engineer)	ha	0,00165		
E1.2.1	8.2.8	<u>Demolish and remove structures/buildings and dismantle steelworks, etc</u>				
E1.2.3		Existing brick chamber with reinforced concrete base and roofslab	Sum	-		
E1.3	8.2.10	Remove topsoil to nominal depth of 150mm and stockpile	m ³	2		
E3	SABS 1200DA	SECTION DA: EARTHWORKS				
		1) Meter chamber				
E3.1		Rip and recompact 150mm insitu material to 93% MOD AASHTO density	m ³	7		
E3.2	8.3.1(b)	Excavate in all materials and use for backfill (• In-situ backfill of selected suitable G7 material	m ³	209		
E3.3	8.3.1 (c)	Extra-over for:				-

Carried Forward						
Brought Forward						
E3.3.1		1) hard rock excavation (Provisional)	m ³	21		-
E3.4	8.3.4	Importing of material from a commercial source				
E3.5	8.3.4.1	Importing of backfill G7 Material compacted in layers not exceeding 150mm in thickness compacted to 93% MOD AASHTO density AT - 1% to +2% OMC	m ³	101		-
E3.6	8.3.4.2	Extra over for 8.3.1(b)	m ³	21		-
E3.7	8.3.4.2	G5 Material compacted in layers not exceeding 100 mm in thickness compacted to 95% MOD AASHTO density AT -1% to +2% OMC	m ³	11		
E3.8	8.3.6	Topsoiling from stockpile	m ²	22		
E3.9	8.3.7	Planting of grass from commercial sources to match what is on site	m ²	22		
E3.10	8.8	Shoring of excavations	Sum	1		
E3.11	PSDA 8.3.10	Take and provide photographic records	sum	1		
		2) H21 valve chamber				
E3.1		Rip and recompact 150mm insitu material to 93% MOD AASHTO density	m ³	4		
E3.2	8.3.1(b)	Excavate in all materials and use for backfill (• In-situ backfill of selected suitable G7 material from excavations, compacted in layers not exceeding 150mm to 93% MOD AASHTO	m ³	116		
E3.3	8.3.1 (c)	Extra-over for:				
E3.3.1		1) hard rock excavation (Provisional)	m ³	12		
E3.4	8.3.4	Importing of material from a commercial source				
E3.5	8.3.4.1	Importing of backfill G7 Material compacted in layers not exceeding 150mm in thickness compacted to 93% MOD AASHTO density AT - 1% to +2% OMC	m ³	63		
E3.6	8.3.4.2	Extra over for 8.3.1(b)	m ³	12		
E3.7	8.3.4.2	G5 Material compacted in layers not exceeding 100 mm in thickness compacted to 95% MOD AASHTO density AT -1% to +2% OMC	m ³	5		
E3.8	8.3.6	Topsoiling from stockpile	m ²	13		
E3.9	8.3.7	Planting of grass from commercial sources to match what is on site	m ²	13		
E3.10	8.8	Shoring of excavations	Sum	1		
E3.11	PSDA 8.3.10	Take and provide photographic records	sum	1		
Carried Forward						

Brought Forward						
		3) H27 valve chamber				
E3.1		Rip and recompact 150mm insitu material to 93% MOD AASHTO density	m ³	5		
E3.2	8.3.1(b)	Excavate in all materials and use for backfill (• In-situ backfill of selected suitable G7 material from excavations, compacted in layers not	m ³	175		
E3.3	8.3.1 (c)	Extra-over for:				
E3.3.1		1) hard rock excavation (Provisional)	m ³	18		
E3.4	8.3.4	Importing of material from a commercial source				
E3.5	8.3.4.1	Importing of backfill G7 Material compacted in layers not exceeding 150mm in thickness compacted to 93% MOD AASHTO density AT - 1% to +2% OMC	m ³	122		
E3.6	8.3.4.2	Extra over for 8.3.1(b)	m ³	18		
E3.7	8.3.4.2	G5 Material compacted in layers not exceeding 100 mm in thickness compacted to 95% MOD AASHTO density AT -1% to +2% OMC	m ³	7		
E3.8	8.3.6	Topsoiling from stockpile	m ²	17		
E3.9	8.3.7	Planting of grass from commercial sources to match what is on site	m ²	17		
E3.10	8.8	Shoring of excavations	Sum	1		
E3.11	PSDA 8.3.10	Take and provide photographic records	sum	1		
Carried Forward						

Brought Forward						
E4	SABS 1200GA	SECTION GA: CONCRETE (SMALL WORKS)				
E4.1	8.2	SCHEDULED FORMWORK ITEMS				
		1) Meter Chamber				
E4.1.1	8.2.1	Rough formwork (sides of base slab)	m²	10		
E4.1.2	8.2.2	Smooth formwork (Walls and Roof Soffit)	m²	193		
E4.2	8.2.3	Narrow widths				
E4.2.1		Sides of roof slab (250-280mm high)	m	22		
E4.2.2		To form sides of sump below floor (150mm	m	2		
E4.3	8.2.4	Box out Holes / Form Voids				
E4.3.1		a) Box out hole for 500mm x 500mm x 150mm (deep) sump	No.	1		
E4.3.2		b) Box out hole for 550mm x 550mm x 400mm (deep)	No.	2		
		2) H21 Valve Chamber				
E4.1.1	8.2.1	Rough formwork (sides of base slab)	m²	6		
E4.1.2	8.2.2	Smooth formwork (Walls and Roof Soffit)	m²	134		
E4.2	8.2.3	Narrow widths				
E4.2.1		Sides of roof slab (250-280mm high)	m	15		
E4.2.2		To form sides of sump below floor (150mm high)	m	2		
E4.3	8.2.4	Box out Holes / Form Voids				
E4.3.1		a) Box out hole for 500mm x 500mm x 150mm (deep) sump	No.	1		
E4.3.2		b) Box out hole for 550mm x 550mm x 300mm (deep)	No.	1		
		c) Box out hole for 1450mm x 1450mm x 300mm (deep)	No.	2		
Carried Forward						

Brought Forward						
		3) H27 Valve Chamber				
E4.1.1	8.2.1	Rough formwork (sides of base slab)	m ²	8		
E4.1.2	8.2.2	Smooth formwork (Walls and Roof Soffit)	m ²	170		
E4.2	8.2.3	Narrow widths				
E4.2.1		Sides of roof slab (250-280mm high)	m	17		
E4.2.2		To form sides of sump below floor (150mm high)	m	2		
E4.3	8.2.4	Box out Holes / Form Voids				
E4.3.1		a) Box out hole for 500mm x 500mm x 150mm (deep) sump	No.	1		
E4.3.2		b) Box out hole for 550mm x 550mm x 400mm (deep)	No.	1		
		c) Box out hole for 2050mm x 2050mm x 400mm (deep)	No.	2		
E4.4	8.3	<u>SCHEDULED REINFORCEMENT ITEMS</u>				
		1) Meter Chamber				
E4.4.1	8.3.1	<u>Steel bars</u>				
E4.4.1.1		a) Mild steel reinforcement	kg	1394		
E4.4.1.2		b) High tensile steel reinforcement	kg	13935		
		2) H21 Valve Chamber				
E4.4.1	8.3.1	<u>Steel bars</u>				
E4.4.1.1		a) Mild steel reinforcement	kg	679		
E4.4.1.2		b) High tensile steel reinforcement	kg	6792		
		3) H27 Valve Chamber				
E4.4.1	8.3.1	<u>Steel bars</u>				
E4.4.1.1		a) Mild steel reinforcement	kg	1083		
E4.4.1.2		b) High tensile steel reinforcement	kg	10828		
E4.5	8.4	<u>SCHEDULED CONCRETE ITEMS</u>				
		1) Meter Chamber				
E4.5.1	8.4.2	<u>Blinding Layer in Base Concrete</u>				
E4.5.1.1		50mm Class 15/19MPa Blinding Layer	m ²	38		
E4.5.2	8.4.3	<u>Strength Concrete</u>				
E4.5.2.1		a) Grade 35MPa/19mm	m ³	55		
E4.5.2.2		b) Grade 60MPa/19mm	m ³	7		
E4.5.2.3		c) Grade 15MPa mass concrete (access steps)	m ³	1,5		
E4.5.3	8.4.4	Unformed surface finishes				
E4.5.3.1		Wood-floated finish to floor and roof slabs	m ²	47		
Carried Forward						

Brought Forward						
		2) H21 Valve Chamber				
E4.5.1	8.4.2	<u>Blinding Layer in Base Concrete</u>				
E4.5.1.1		50mm Class 15/19MPa Blinding Layer	m ²	18		
E4.5.2	8.4.3	<u>Strength Concrete</u>				
E4.5.2.1		a) Grade 35MPa/19mm	m ³	27		
E4.5.2.2		b) Grade 60MPa/19mm	m ³	3		
E4.5.2.3		c) Grade 15MPa mass concrete (access steps)	m ³	1,0		
E4.5.3	8.4.4	Unformed surface finishes				
E4.5.3.1		Wood-floated finish to floor and roof slabs	m ²	21		
		3) H27 Valve Chamber				
E4.5.1	8.4.2	<u>Blinding Layer in Base Concrete</u>				
E4.5.1.1		50mm Class 15/19MPa Blinding Layer	m ²	24		
E4.5.2	8.4.3	<u>Strength Concrete</u>				
E4.5.2.1		a) Grade 35MPa/19mm	m ³	44		
E4.5.2.2		b) Grade 60MPa/19mm	m ³	4		
E4.5.2.3		c) Grade 15MPa mass concrete (access steps)	m ³	1,0		
E4.5.3	8.4.4	Unformed surface finishes				
E4.5.3.1		Wood-floated finish to floor and roof slabs	m ²	27		
E5	8.8	<u>MISCELLANEOUS</u>				
		1) Meter Chamber				
E5.1		<u>Cast in PVC sleeves:</u>				
E5.1.1		a) 110mm diameter x 400mm long including vermin proof mesh	No.	4		
E5.1.2		b) Cast in 150mm diameter x 250mm long PVC sleeves above valve caps	No.	1		
E5.1.3		c) 50mm diameter x 250mm long PVC sleeves on removable roof panel	No.	8		
E5.2		Cast in standard Rand Water manhole frame and cover (supplied by Rand Water)	No.	2		
E5.3		Supply and cast in standard Rand Water frame and sump cover (as per DGR No. A8879)	No.	1		
E5.4		Crystalline admixture to be added to concrete mix (e.g. Xypex)	Sum	1		
E5.5		Rigid polymer modified liquid waterproofing (Apply on both sides of the walls)	m ²	165		
E5.6		Gundle brickgrip DPC 375 bond breaker or similar approved for removable roof panels	m ²	4		
E5.7	SANS 2001-CC1- 5.1.6	Water tightness test	Sum	1		
Carried Forward						
Brought Forward						

		2) H21 Valve Chamber				
E5.1		<u>Cast in PVC sleeves:</u>				
E5.1.1		a) 110mm diameter x 400mm long including vermin proof mesh	No.	4		
E5.1.2		b) Cast in 150mm diameter x 250mm long PVC sleeves above valve caps	No.	1		
E5.1.3		c) 50mm diameter x 250mm long PVC sleeves on removable roof panel	No.	4		
E5.2		Cast in standard Rand Water manhole frame and cover (supplied by Rand Water)	No.	1		
E5.3		Supply and cast in standard Rand Water frame and sump cover (as per DGR No. A8879)	No.	1		
E5.4		Crystalline admixture to be added to concrete mix (e.g. Xypex)	Sum	1		
E5.5		Rigid polymer modified liquid waterproofing (Apply on both sides of the walls)	m ²	121		
E5.6		Gundule brickgrip DPC 375 bond breaker or similar approved for removable roof panels	m ²	2		
E5.7	SANS 2001-CC1- 5.1.6	Water tightness test	Sum	1		
		3) H27 Valve Chamber				
E5.1		<u>Cast in PVC sleeves:</u>				
E5.1.1		a) 110mm diameter x 400mm long including vermin proof mesh	No.	4		
E5.1.2		b) Cast in 150mm diameter x 250mm long PVC sleeves above valve caps	No.	1		
E5.1.3		c) 50mm diameter x 250mm long PVC sleeves on removable roof panel	No.	4		
E5.2		Cast in standard Rand Water manhole frame and cover (supplied by Rand Water)	No.	1		
E5.3		Supply and cast in standard Rand Water frame and sump cover (as per DGR No. A8879)	No.	1		
E5.4		Crystalline admixture to be added to concrete mix (e.g. Xypex)	Sum	1		
E5.5		Rigid polymer modified liquid waterproofing (Apply on both sides of the walls)	m ²	153		
E5.6		Gundule brickgrip DPC 375 bond breaker or similar approved for removable roof panels	m ²	2		
E5.7	SANS 2001-CC1- 5.1.6	Water tightness test	Sum	1		
E6	SABS 1200HA	SECTION HA: STRUCTURAL STEELWORK (SUNDRY ITEMS)				
	8.3	SCHEDULED ITEMS				
		1) Meter Chamber				
E6.1	8.3.1	<u>Structural Steel</u>				
E6.1.1		a) Supply all materials and install the Steel valve supports as detailed on Rand Water Detail Drg A12210:	t	0,04		
Carried Forward						
Brought Forward						
E6.2	8.3.3	<u>Ladders complete and installed</u>				

E6.2.1		Supply and Install Standard Rand Water Internal Catladder (Height = 3700mm) (as per DRG No. A7406)	No.	2		
E6.2.2		Supply and Install Standard Rand Water Grab Rail (as per DRG No: A9858)	No.	2		
2) H21 Valve Chamber						
E6.1	8.3.1	<u>Structural Steel</u>				
E6.1.1		a) Supply all materials and install the Steel valve supports as detailed on Rand Water Detail Drg A12210:	t	0,03		
E6.2	8.3.3	<u>Ladders complete and installed</u>				
E6.2.1		Supply and Install Standard Rand Water Internal Catladder (Height =4000mm) (as per DRG No. A7406)	No.	1		
E6.2.2		Supply and Install Standard Rand Water Grab Rail (as per DRG No: A9858)	No.	1		
3) H27 Valve Chamber						
E6.1	8.3.1	<u>Structural Steel</u>				
E6.1.1		a) Supply all materials and install the Steel valve supports as detailed on Rand Water Detail Drg A12210:	t	0,04		
E6.2	8.3.3	<u>Ladders complete and installed</u>				
E6.2.1		Supply and Install Standard Rand Water Internal Catladder (Height = 4800mm) (as per DRG No. A7406)	No.	1		
E6.2.2		Supply and Install Standard Rand Water Grab Rail (as per DRG No: A9858)	No.	1		
CARRIED FORWARD TO SUMMARY						

Tender No.: Description:	#REF!	
	Installation of meter connection at klipfontein view	Summary
	SUMMARY	
SCHEDULE	Description	Amount
A B C D E	PRELIMINARY AND GENERAL ENVIRONMENT OCCUPATIONAL HEALTH AND SAFETY QUALITY CIVIL	
SUBTOTAL A		
VALUE ADDED TAX Add 15% of Subtotal A <i>(Provisional sum based on current rate of VAT)</i>		
TOTAL CARRIED TO FORM C1.1, FORM OF OFFER		
<u>SIGNED ON BEHALF OF TENDERER:</u>		