

SANS Pay Ref	Item No	Unit	Quantity	Rate	Amount	
		<u>SECTION 1: PRELIMINARY AND GENERAL</u>				
		<u>BILL NO. 1</u>				
<u>SANS 1200A</u>		<u>PRELIMINARY AND GENERAL(Applicable to the whole of the Works)</u>				
8.3		<u>FIXED CHARGE ITEMS</u>				
8.3.1	1			SUM		
8.3.2		<u>Establishment, Operation and Maintenance of Facilities on Site</u>				
8.3.2.1		<u>Facilities for Engineer</u>				
	2			SUM		
8.3.2.2		<u>Facilities for Contractor</u>				
	3			SUM		
	4			SUM		
	5			SUM		
	6			SUM		
	7			SUM		
	8			SUM		
	9			SUM		
	10			SUM		
	11			SUM		
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SANS Pay Ref	Item No		Unit	Quantity	Rate	Amount
8.3.2.2		<u>Facilities for Contractor</u>				
	25	Offices			SUM	
	26	Yard			SUM	
	27	Workshops and stores			SUM	
	28	Laboratories			SUM	
	29	Living accommodation			SUM	
	30	Transportation			SUM	
	31	Sanitary facilities			SUM	
	32	Tools and equipment			SUM	
	33	Water supplies, electric power and communications.			SUM	
	34	Dealing with water (see 5.5)			SUM	
	35	Access (see 5.8)			SUM	
	36	Plant			SUM	
	37	Supervision			SUM	
	38	Company and Head Office overhead costs.			SUM	
	39	Security for the works for duration of the contract.			SUM	
8.4.5		<u>Other obligations</u>				
	40			SUM	
	41	Provision for cost to all conditions as stipulated in the Enviromental Management Program.			SUM	
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SANS Pay Ref	Item No	Unit	Quantity	Rate	Amount
	42	Compliance with the complete Occupational Health and Safety Act. (No. 85 of 1992 and ESKOM 32-136)		SUM	
	43	Provision for cost to adhere to all requirements of the Quality Assurance Requirements.		SUM	
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Item No	<u>SECTION 2: MODIFICATION TO EXISTING TRANSFORMER NO.13 BAY</u>	Unit	Quantity	Rate	Amount
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	Note: All surplus materials to be removed to an approved dumping site that complies with the Environmental Management Programme Act, located by the contractor.				
	<u>Demolish and remove existing concrete plinths, bases, surface beds, footings, brickwork and dismantle steelwork, etc., including excavate to expose concrete and stock pile on site to spoil area and remove surplus material to an approved dumping site, located by the contractor:</u>				
	Removing of an existing safety fence around the plinth.				
		No	26		
	<u>YARDSTONE</u>				
	<u>NOTE: Removing and replacing of yard stone is measured 1m beyond outside border of new structures and will be paid accordingly</u>				
1	Take up yardstone layer 100mm thick and stockpile for reuse.	m2	81		
2	Take from stockpile and re-place yardstone layer 100mm thick upon completion of the works, lightly compacted to set levels	m2	81		
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SANS Pay Ref	Item No		Unit	Quantity	Rate	Amount
	3	Supply and apply weed killer	m2	81		
		<u>BARRICADE FENCING</u>				
	4	Make provision for the necessary barricade fencing (Diamond Mesh including temporary posts) to fence off the approved working area and hand over to Sub-station EA after finalising of contract.	m	80		
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	<u>SECTION 3: NEW TRANSFORMER NO.1 BAY</u>				
	<u>BILL NO. 1</u>				
	<u>NEW TRANSFORMER PLINTH UPGRADE</u>				
	Note: Transformer Plinth in accordance to details				
SANS 1200 D	<u>EARTHWORKS</u>				
	Note: All surplus materials to be disposed to a nearby Registered Dump Site.				
8.3.3	<u>Restricted excavation</u>				
	<u>Excavate in all materials and use for backfill in 150mm layers compacted to 95% Mod AASHTO density including disposal of surplus material as ordered:</u>				
	1	Reduce levels under plinth. (Provisional)	m3	10	
	2	Reduce levels under surface beds. (offloading pad)	m3	28	
	3	Strip foundations. (Provisional)	m3	8	
	4	Foundations	m3	2.52	
(b)	<u>Extra over for:</u>				
(1)	5	Intermediate excavation. (Provisional)	m3	8	
(2)	6	Hard rock excavation. (Provisional)	m3	4	
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SANS Pay Ref	Item No		Unit	Quantity	Rate	Amount
		<u>Compaction of in-situ material</u>				
8.3.4	7	Rip and re-compact in-situ material 150mm thick at bottom of excavation to 95% of MOD AASHTO density. (Provisional)	m2	57		
		<u>Importation of Materials from Commercial Sources:</u>				
8.2	8	G5 Material from commercial sources in accordance with SABS 1200 DM supplied and carted onto site by the Contractor, compacted in layers not exceeding 150mm thick to obtain minimum 95% Mod AASHTO density to be approved by the Engineer.(Provisional)	m3	12		
8.2.2		<u>FORMWORK</u>				
		<u>Smooth formwork to:</u>				
	9	Plinths	m2	26		
	10	Strip foundations. (Provisional)	m2	24		
	11	Sides of channels.	m2	14		
	12	Sides of bases.	m2	21		
8.2.4		<u>Box in or out:</u>				
	13	Form chamfer 20 x 20mm to top edges of concrete.	m	30		
	14	Form cable trench 450mm wide x 250mm Deep to top of concrete slab.	m	19		
	15	Form sump 500 x 500 x 400mm Deep to top of concrete slab.	No	1		
8.3		<u>REINFORCEMENT</u>				
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8.3.2		<u>High tensile welded mesh reinforcement:</u>				
	16	Reference No. 395.	m2	112		
8.3.1		<u>Mild steel reinforcement bars</u>				
8.4		<u>CONCRETE</u>				
8.4.2		<u>Blinding layer in 15/19 MPa concrete:</u>				
	17	50 mm Thick.	m2	56		
8.4.2		<u>Strength concrete 25/19MPa</u>				
	18	Strip foundations. (Provisional)	m3	5		
	19	Surface bed.	m3	8		
	20	Channels	m3	3		
	21	Bases and Stub Columns.	m3	76		
	22	Additional New Cable Trench (ref 0./390 sht 15)	m	7		
8.4.2		<u>Strength concrete 40/19MPa:</u>				
	23	Plinths	m3	10		
8.4.4		<u>Unformed surface finishes:</u>				
(a)	24	Wood floated.	m2	40		
8.5		<u>Joints</u>				
	25	Expansion joint through 100mm thick concrete floor. (Provisional)	m	15		
	26	Self-leveling silicone joint sealant as per detail "X" on drawing 0.54/390 sheet 40. (Provisional)	m	15		
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	27	Lime wash butt joint between screeds as per drawing 0.54/390 sheet 68. #	m	13		
		<u>SUNDRIES</u>				
	28	Fill and compact existing cable trench with river sand size 450 x 250mm high overall as per detail on drawing 0.54/390 sheet 68.	m	14		
	29	Allow for forming 75 x 75mm earthing tail entry hole through one brick wall as per detail on drawing 0.54/390 sheet 49a.(Provisional)	No	6		
	30	Allow for building around and forming 450 x 250mm cable trench entry hole through one brick wall for existing cable trench including additional concrete footing, etc., as per detail on drawing 0.54/390 sheet 49b.	No	3		
		<u>BRICKWORK</u>				
		<u>Brickwork of FBS approved facebricks to match existing in class II mortar:</u>				
	31	One brick wall.	m2	49		
	32	Brick on edge header course coping on top of existing one brick wall.	m	39		
		<u>Brickwork sundries</u>				
	33	20mm Bitumen impregnated fibre board built in vertically through brick walls.	m2	20		
	34	Brickwork reinforcement 150mm wide built in horizontally.	m	39		
		<u>EARTH MAT (PROVISIONAL)</u>				
		Dwg No 0.54/393 Sheets C1-31 Sheets P1-10 Sheets T1-10				
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SANS Pay Ref	Item No		Unit	Quantity	Rate	Amount
		<u>Supply, deliver and lay copper earth mat, equipment earthing, earth straps, including excavation in all material, risk of collapse, bedding, backfill, compaction and testing at depths up to: (See Earth Mat Specifications). All flat copper to be 50 x 3mm in accordance with BS 1432, pickled and annealed (1.35kg/m) and 10mm diameter copper in accordance with BS 1433 annealed black copper (0.701kg/m).</u>				
	35	10mm Diameter copper rods not exceeding 1m deep. (Provisional)	m	25		
	36	50 x 3mm Flat copper earth strap to specification on Drawing no. 0.54/393 to be laid before concrete floor is cast. (Provisional)	m	28		
	37	Crimp joints 10mm round to round Sheet C1 Note 5. (Provisional)	No	12		
	38	Earthtail clamp to terminate round copper tail to equipment or fence steel posts Sheets C6 - 7. (Provisional)	No	6		
	39	Bolted earthtail connection Sheet C26. (Provisional)	No	6		
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SANS Pay Ref	Item No		Unit	Quantity	Rate	Amount
		<u>SECTION 3: STRUCTURAL STEELWORK</u>				
		<u>BILL NO. 3</u>				
<u>SANS 1200HA</u>		<u>STRUCTURAL STEELWORK FOR TRANSFORMER BAY</u>				
8.3.1		Notes to Tenderers:The tenderer is to allow in the pricing of structural steelwork for all steelwork to be erected plumb and to include for all necessary steel packing pieces to achieve same.All steelwork including members, channels, cleats, etc., to be cleaned, prepared and hot dipped galvanised to engineers standard specification.				
8.3.1		<u>SUPPLY AND FABRICATION OF STEELWORK</u>				
8.3.1		<u>Steelwork to be Hot Dipped Galvanised Grade S355JR as per the standard specifications, complete with all necessary cleats, brackets, gussets, packs, shop fasteners, baseplates and the like, including cleaning of steelwork, shop priming and loading ready for dispatch to site.</u>				
8.3.1a	1	Structural Steelwork. (Provisional)	t	3.00		
8.3.1		<u>Delivery:</u>				
8.3.1	2	Delivery of normal loads of steelwork to site. (Provisional)	t	3.00		
8.3.1		<u>Offloading and erection of steel on site (columns, beams, etc.):</u>				
8.3.1a	3	Structural Steelwork. (Provisional)	t	3.00		
<u>SANS 1200H</u> 8.3.6		<u>H.D. BOLTS AND MISCELLANEOUS METALWORK</u>				
		Carried to Collection				R
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8.3.4		<u>Supply and delivery of erection bolts:</u>				
<u>SANS 1200H</u> 8.3.6	4	Galvanised grade 4.8 bolts. (Provisional)	kg	66		
SANS 1200HC		<u>CORROSION PROTECTION</u>				
8.2.3		<u>Surface preparation and coating application as per Specification:</u>				
	5	Structural steelwork.(Provisional)	t	3.00		
		<u>SUNDRIES</u>				
8.3.1		<u>Supply, fabricate and deliver structural steelwork for pre-cast cover supports:</u>				
	6	80 x 80mm x 7,34 kg/m L-section. (Provisional)	kg	5		
	7	76 x 152mm x 17,9kg/m Channel section. (Provisional)	kg	5		
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SECTION 4: SITE WORKS**BILL NO. 1****CABLE TRENCH**

Construct complete as specified and shown on Drawings No 0.54/390, including excavation in all material, working space, risk of collapse, concrete, formwork, reinforcement, imported backfill and disposal.

Note: Covers must be fitted, marked for positions and placed next to trenches for later installation by others.

Concrete cable trench sections include for supporting galvanised steelwork.

1	Single cable trench including all excavations, bedding, riversand and pre-cast concrete kerb stones, complete as per drawing 0.54/390 sheet 15 (Covers elsewhere measured).	m	16		
2	Precast concrete covers, supply and lay by Contractor as per drawing 0.54/390 sheet 17A. MH	No	20		
3	Single to single T- Junction cable trench to intersect existing trench including covers, steel supports, alteration works, etc., as per drawing 0.54/390 sheet 22.	No	2		
4	Single trench bend as per sheet 19. (Provisional)	No	1		

DRAINAGE**Carried to Collection**

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Item No	<u>Alterations:</u>	Unit	Quantity	Rate	Amount
10	Take down and remove existing safety fence, including gates, foundations, overhangs, etc. complete (panel gate frame to be reused).	m	58		
	<u>Construct safety fence complete, including foundations, as detailed on Drawings 0.54/4963 sheets 1 to 4:</u>				
11	1 990mm High safety fence, including galvanised steel posts, galvanised diamond mesh, concrete foundations, etc., complete as per drawings 0.54/5633 sheet 1 to 7.	m	51		
	<u>Sundry work to existing safety fence complete, refer to details on Drawings 0.54/4963 sheets 1 to 4:</u>				
12	Galvanised safety fencing mesh to match existing on removable panel gates, including ties , etc., refer to drawings 0.54/5633 sheet 1 to 7.	m2	9		
	<u>Sundries:</u>				
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SITE WORKS

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