

Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
		<u>SECTION NO. 18</u>				
		<u>BILL NO. 1</u>				
		<u>PAVING</u>				
		<u>PARKING PAVING</u>				
	SANS 1200	<u>ROADS AND PARKING</u>				
1	8.3.2	Preparation and Stripping to the 300mm depth, stockpiling and maintaining	m3	470		
2	SANS1200DB 8.3.2	Excavate 200mm in all materials, backfill, compact and dispose of surplus material for road reserve	m3	250		
3	8.3.3	Treatment to Roadbed : Insitu rip and recompact 150mm deep to 100% Mod AASHTO (sand)	m3	200		
4		125mm thk G5 compacted to 93% Mod AASHTO	m3	160		
5		125mm thk G5 compacted to 95% Mod AASHTO	m3	160		
6	SANS1200MF 5.4.42 (b)	125mm thk C4 (G5 engineered fill) compacted to 97% Mod AASHTO	m3	160		
7		Allow 5% by volume of C4 layer for Ordinary Portland Cement required	m3	8		
	SANS1200MK	<u>Kerbing and Channeling</u>				
8	8.2.1	Fig 8c: Precast Concrete Kerbing	m	150		
9	8.2.1	Fig 10: Precast Concrete Kerbing	m	10		
		Carried to Collection				
		Section No. 18 CIVIL WORKS Bill No. 1 Paving				
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Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
		<u>1000mm Wide RC V-drain Channel</u>				
		The rate for concrete shall include supply, testing, placing, floating and curing				
10		25MPa/19mm Concrete	m3	95		
	SANS 1200	<u>80mm THICK BLOCK PAVING</u>				
11		35 mm Bedding Sand	m3	50		
12		80mm interlocking Class 35 blocks	m2	1 120		
	SABS1200D	<u>Road Traffic Signs and Markings</u>				
13	8.3.12	Traffic signs			SUM	
14	8.3.12	Road Markings			SUM	
		<u>PAVING</u>				
15	8.3.2	Preparation and Stripping to 300mm depth, stockpiling and maintaining	m3	410		
16	8.3.3	Treatment to Roadbed : Insitu rip and recompact 150mm deep to 100% Mod AASHTO (sand)	m3	205		
17		125mm thk G5 compacted to 95% Mod AASHTO	m3	170		
18	SANS1200MF 5.4.42 (b)	125mm thk C4 (G5 engineered fill) compacted to 97% Mod AASHTO	m3	170		
19		Allow 5% by volume of C4 layer for Ordinary Portland Cement required	m3	9		
20		35 mm Bedding Sand	m3	45		
21		50mm interlocking Class 35 blocks	m2	1 350		
		Carried to Collection				
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		<p>Section No. 18</p> <p>Bill No. 1</p> <p>Paving</p> <p><u>COLLECTION</u></p> <p>Total Brought Forward from Page No.</p>		<p>Page No</p> <p>1</p> <p>2</p>		<p>Amount</p> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>
		<p style="text-align: right;">Carried Forward to Summary of Section No. 18</p> <p>Section No. 18 CIVIL WORKS Bill No. 1 Paving</p>			<p style="text-align: right;">R</p>	

Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
		<u>SECTION NO. 18</u>				
		<u>BILL NO. 2</u>				
		<u>BURIED SERVICES</u>				
		<u>STORMWATER</u>				
	SANS1200DB 8.3.2	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material</u>				
1		Ø450 pipe 1m to 2m depth	m3	500		
2		Ø450 pipe deeper than 2m	m3	85		
	SANS1200DB 8.3.4	<u>Particular items.</u>				
3	8.3.4.a	Shore trench opposite structure or service	m	30		
	8.3.4.b	<u>Temporary works: Control water inflow at invert level below 1.5m elevation.</u>				
4	1	Provide equipment			SUM	
5	2	Operate and maintain (measured in number of days)	No	15		
6	3	Remove equipment			SUM	
	SANS1200LB 8.2.1	<u>Provision of fill blanket and bedding from trench excavation</u>				
7	8.2.1.a	Selected granular material	m3	200		
		<u>Backfill from trench excavation and local stockpiling.</u>				
8	8.2.1.b	Selected fill material	m3	100		
		Carried to Collection				
		Section No. 18 CIVIL WORKS Bill No. 2 Buried Services			R	

Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
9	SANS1200LE 8.2.1	<u>Supply and lay different classes of pipe.</u> Supply and lay Class 25D Ø450 concrete pipe on a class B bedding (spigot and socket joints)	m	225		
10	SANS1200LE 8.2.8	<u>Supply and install manholes, catchpits and the like. See Drawing No. DBSA-MBO-S1-CIV-DWG-004</u> TYPE A and TYPE B Brick manholes deeper than 1.190m with 800x800 BLITZ-BETON Type Grid Inlest Grating and Frame	No	6		
11		TYPE C Brick manholes deeper than 1.190m with 800sqm M.H. COVER AND FRAME TO SABS 558 TYPE 6	No	2		
		<u>POTABLE WATER AND FIREWATER</u>				
12	SANS1200DB 8.3.2	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material</u> Ø110, Ø75, Ø50, Ø32 pipe 1m to 2m depth	m3	650		
13	SANS1200LB 8.2.1 8.2.1.b	<u>Provision of bedding from trench excavation and local stockpiling.</u> Selected fill sand material	m3	650		
14	SANS1200LE 8.2.1	<u>Supply and lay different classes of pipe.</u> Supply and lay Ø50mm OD PE100 HDPE water pipe to SANS 966-1 including all elbows and Tees.	m	50		
15		Supply and lay Class 6 Ø75mm OD PE100 HDPE water pipe to SANS 966-1 including all elbows and Tees.	m	325		
		Carried to Collection				
		Section No. 18 CIVIL WORKS Bill No. 2 Buried Services				
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Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
16		Supply and lay Ø110mm OD PE100 HDPE Fire-water pipe to SANS 966-1 including all elbows and Tees.	m	470		
17		Supply and lay Ø32mm OD PE100 HDPE Fire-water pipe to SANS 966-1 including all elbows and Tees.	m	60		
	SANS1200LF	<u>Erf Connections</u>				
18	8.2.7	Supply and install cast iron valve/ junction/ surface boxes	No	1		
19	8.2.6	Supply and install double union "Tekflo" PVC ball valves for Ø75mm pipe.	No	1		
20		Supply and install double union "Tekflo" PVC ball valves for Ø110mm pipe.	No	1		
21	8.2.4	Supply and install meters complete with couplings	No	1		
22	8.2.5	Site testing of meter	No	1		
		<u>SEWERAGE</u>				
	SANS1200DB 8.3.2	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material</u>				
23		Ø150 UPVC pipe 1m to 2m depth	m3	235		
24		Ø110 UPVC pipe 1m to 2m depth	m3	400		
	SANS1200DB 8.3.4	<u>Particular items.</u>				
25	8.3.4.a	Shore trench opposite structure or service	m	30		
		<u>Temporary works: Control water inflow at invert level below 1.5m elevation.</u>				
26	1	Provide equipment			SUM	
		Carried to Collection			R	
		Section No. 18 CIVIL WORKS Bill No. 2 Buried Services				

Item No	SANS Pay Ref	Description	Unit	Quantity	Rate	Amount
27	2	Operate and maintain (measured in number of days)	No	15		
28	3	Remove equipment			SUM	
		<u>Provision of fill blanket from trench excavation</u>				
29	8.2.1.b	Selected fill material	m3	40		
		<u>From commercial sources for bedding</u>				
30	8.2.2.3.a	Selected granular material	m3	25		
	8.2.1	<u>Supply, lay, joint, bed on flexible bedding type and test pipeline</u>				
31	8.2.1	Supply and lay Class 25 Ø150 UPVC pipe on a flexible bedding.	m	260		
	8.2.3	<u>Manholes</u>				
32		Precast manholes between 1m and 2m deep with Type 2A manhole cover (DBSA-MBO-S1-CIV-DWG-003)	No	7		
33		UPVC rodding eyes with surface access and encased in concrete for Ø110 pipe.	No	3		
		<u>Back-fill Material</u>				
34		Backfill selected material in min 200mm thick layers and compact to 95% Mod AASHTO	m3	300		
35		Cart to stockpile excess materials	m3	50		
		Carried to Collection				
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		<p>Section No. 18</p> <p>Bill No. 2</p> <p>Buried Services</p> <p><u>COLLECTION</u></p> <p>Total Brought Forward from Page No.</p>		<p>Page No</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p>		<p>Amount</p> <p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p>
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Bill No	Section No. 18 CIVIL WORKS SECTION SUMMARY - CIVIL WORKS		Page No		Amount
1	Paving		3		
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	FIXED P&G for Civil Works		Item		
	Section No. 18 CIVIL WORKS			R	

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