

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
I-1	SANS 1200 AD	SECTION : PRELIMINARY AND GENERAL					
	8.3	FIXED-CHARGE ITEMS					
I-1.1	8.3.1	Contractual Requirements	Sum	1.00	1,121,245.00	1,121,245	00
	8.3.2	Establish Facilities on the Site :					
		a) Facilities for Engineer (SANS 1200 AB)					
I-1.2		Offices: 1 furnished room with office desk & chair 1 boardroom with table and 10 chairs	Sum	1.0	0.00	0	00
I-1.3		Name Boards	No.	1.0	0.00	0	00
		b) Facilities for Contractor					
I-1.4		Offices and storage sheds	Sum	1.0	0.00	0	00
I-1.5		Workshops	Sum	1.0	0.00	0	00
I-1.6		Laboratories	Sum	1.0	0.00	0	00
I-1.7		Living accommodation	Sum	1.0	0.00	0	00
I-1.8		Ablution and latrine facilities	Sum	1.0	0.00	0	00
I-1.9		Tools and equipment	Sum	1.0	0.00	0	00
I-1.10		Water supplies, electric power and communications	Sum	1.0	0.00	0	00
I-1.11		Dealing with water (Subclause 5.5)	Sum	1.0	0.00	0	00
I-1.12		Access (Subclause 5.8)	Sum	1.0	0.00	0	00
I-1.13		Earthworks, Road construction & Trenching plant	Sum	1.0	0.00	0	00
I-1.14		Plant for asphaltting	Sum	1.0	0.00	0	00
I-1.15		Plant for Pipe Jacking	Sum	1.0	0.00	0	00
I-1.16		Plant for directional drilling	Sum	1.0	0.00	0	00
I-1.17	8.3.3	Other fixed-charge obligations	Sum	1.0	0.00	0	00
I-1.18	8.3.4	Remove Engineer's and Contractor's Site establishment on completion	Sum	1.0	0.00	0	00
	8.4	TIME-RELATED ITEMS					
I-1.19	8.4.1	Contractual Requirements	Sum	1.0	1,121,245.00	1,121,245	00
	8.4.2	Operate and maintain facilities on the Site:					
	8.4.2.1	a) Facilities for Engineer for duration of construction (SANS 1200 AB)					
I-1.20		Offices: 1 furnished room with office desk & chair 1 boardroom with table and 10 chairs	Sum	1.0	0.00	0	00
I-1.21		Survey assistants and material	Sum	1.0	0.00	0	00
	8.4.2.2	b) Facilities for Contractor for duration of construction, except where otherwise stated					
I-1.22		Offices and storage sheds	Sum	1.0	0.00	0	00
I-1.23		Workshops	Sum	1.0	0.00	0	00
I-1.24		Laboratories	Sum	1.0	0.00	0	00
I-1.25		Living accommodation	Sum	1.0	0.00	0	00
I-1.26		Ablution and latrine facilities	Sum	1.0	0.00	0	00
I-1.27		Tools and equipment	Sum	1.0	0.00	0	00
I-1.28		Water supplies, electric power and communications	Sum	1.0	0.00	0	00
I-1.29		Dealing with water (Subclause 5.5)	Sum	1.0	0.00	0	00
I-1.30		Access (Subclause 5.8)	Sum	1.0	0.00	0	00
I-1.31		Earthworks, Road construction & Trenching plant	Sum	1.0	0.00	0	00
I-1.32		Plant for asphaltting	Sum	1.0	0.00	0	00
I-1.33		Plant for Pipe Jacking	Sum	1.0	0.00	0	00
I-1.34		Plant for directional drilling	Sum	1.0	0.00	0	00
I-1.35	8.4.3	Supervision	Sum	1.0	0.00	0	00
I-1.36	8.4.4	Company and head office overhead costs	Sum	1.0	0.00	0	00
I-1.37	8.4.5	Other time-related obligations	Sum	1.0	0.00	0	00
	8.5	SUMS STATED PROVISIONALLY BY ENGINEER					
		For work to be done by Contractor and valued in terms of Clause ... of conditions of contract					
I-1.38		a) Control testing to be carried out by an approved independant laboratory	Sum	1.00	30,000.00	30,000	00
Total Carried Forward						2,272,490	00

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						2,272,490	00
I-1.39		b) Percentage mark-up on above item for contractors overheads, administration charges and profit.	%	30,000.00	3.00	900	00
I-1.40		c) Staking and levelling of benchmarks for sewers and roads to be carried out by an independant Engineering surveyor.	Sum	1.0	30,000.00	30,000	00
I-1.41		d) Percentage mark-up on above item for contractors overheads, administration charges and profit.	%	30,000.00	3.00	900	00
I-1.42		e) Obtain way leaves: 1) to perform work in municipal reserves	Sum	1.0	8,500.00	8,500	00
I-1.43		f) Percentage mark-up on above item for contractors overheads, administration charges and profit.	%	8,500.00	3.00	255	00
I-1.44		g) Apply for Water Connection	Sum	1.0	8,500.00	8,500	00
I-1.45		h) Percentage mark-up on above item for contractors overheads, administration charges and profit.	%	8,500.00	3.00	255	00
	8.7	Daywork					
I-1.46		Labour	Sum	1.0	10,000.00	10,000	00
I-1.47		Percentage adjustment to item .3.10 for labour	%	10,000.00	3.00	300	00
I-1.48		Materials	Sum	1.0	10,000.00	10,000	00
I-1.49		Percentage adjustment to item .3.12 for materials	%	10,000.00	3.00	300	00
I-1.50		Plant	Sum	1.0	10,000.00	10,000	00
I-1.51		Percentage adjustment to item .3.14 for plant	%	10,000.00	3.00	300	00
	8.8.5	Land Survey Act					
I-1.52		a) Search for and record tri- gonometrical survey beacons, bench marks and plot boundary pegs, and expose on completion of Works	Sum	1.0	0.00	0	00
I-1.53		b) Protect beacons, etc., located under item .3.6 and reposition or re-establish, as ordered, the same by a Registered Land Surveyor on completion of the Works	Sum	1.0	0.00	0	00
	8.8	TEMPORARY WORKS					
I-1.54	8.8.2	Deal with traffic and maintain road (or accommodation of traffic)	Sum	1.0	0.00	0	00
I-1.55		Erect Temporary Fencing & Maintain	m	0.0	0.00	Rate Only	
I-1.56		Cover temporary soil stockpiles with approved sheeting, secure and maintain (between phases)	m ²	0.0	0.00	Rate Only	
	8.8.4	Existing services					
I-1.57		Excavate by hand in soft material to expose existing service	m ³	50.0	175.00	8,750	00
		HEALTH AND SAFETY					
I-1.58		Contractor's initial obligations in respect to the occupational Health and Safety Act and Construction Regulations	Sum	1.0	0.00	0	00
I-1.59		Contractor's time related obligations in respect to the occupational Health and Safety Act and Construction Regulations	Month	6.0	0.00	0	00
I-1.60		Provision of full time construction Safety Officer	Month	6.0	0.00	0	00
I-1.61		Submission of Health and Safety File	Sum	1.0	0.00	0	00
		ENVIRONMENTAL AWARENESS					
I-1.62		Environmental Awareness Training & preparation of environmental management plan by a suitably qualified environmental consulting firm.	Sum	1.0	0.00	0	00
I-1.63		Compliance with environmental management specifications	Sum	1.0	0.00	0	00
Total Carried Forward To Summary						2,361,450	00
I-2	SANS 1200 C	SECTION : SITE CLEARANCE					
Total Carried Forward						0	00

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : SITE CLEARANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						0	00
I-2.1	8.2.1	CLEAR SITE Clear and grub Site	ha	21.0	33,000.00	693,000	00
	8.2.2	Remove and grub large trees and tree stumps of girth Over and up to					
I-2.2		1 m 2 m	No.	1.0	700.00	700	00
I-2.3		2 m 3 m	No.	1.0	800.00	800	00
I-2.4		3 m upwards in 1 m steps	No.	1.0	900.00	900	00
I-2.5		Extra over Site Clearance Rate for Demolishing existing buildings, and spoiling all material including builders Rubble at a comercial dump site	Sum	0.0	200,000.00	Rate Only	
I-2.6		Extra over Site Clearance Rate for Demolishing existing buildings, and breaking down builders rubble and stockpiling same for spreading under berm later. Note, alowance must be made in the rate for all plastic, metal and wood material to be spoiled off site at a commercial dump site. NOTE: Contractor to make sure that he visited the site and evaluate exactly the extent of all structures to be included under this item.	Sum	1.0	200,000.00	200,000	00
Total Carried Forward To Summary						895,400	00
I-3		SECTION : BULK EARTHWORKS					
	8.3.2	EXCAVATION					
I-3.1	8.3.1.2	Remove topsoil to nominal depth 150mm, stockpile, and maintain	m³	720.0	34.10	24,552	00
I-3.2	8.3.1.2	Cut topsoil to nominal depth 150mm and fill directly to berm in 150mm layers to 90% Mod AASHTO density.	m³	1,000.0	34.10	34,100	00
I-3.3	8.3.1.2	Remove topsoil to nominal depth 150mm, and spoil at commercial spoil site	m³	500.0	86.90	43,450	00
	8.3.2(a)	Excavate in all materials and place within freehaul distance for : Cut directly to Fill and compact to 93% Mod AAshto Density in layers not exeeding 150mm					
I-3.4		Cut and fill on Roads	m³	950.0	53.97	51,271	50
I-3.5		Cut and fill into area behing dam basin (includes attenuation pond excavation)	m³	12,750.0	45.00	573,750	00
I-3.6		Cut to stockpile	m³	5,000.0	26.25	131,250	00
I-3.7		Cut unsuitable material to spoil	m³	920.0	26.25	24,150	00
I-3.8		Final shaping Between new erven	m³	5,000.0	10.67	53,350	00
	8.3.2(b)	Extra-over items .2.2 & .2.3 for excavation in:					
I-3.9		Intermediate material	m³	500.0	125.00	62,500	00
I-3.10		Hard rock material	m³	500.0	385.00	192,500	00
	8.3.4	IMPORT MATERIAL From stockpiles (within 0.5km freehaul distance) and compact in 150mm layers to 93% Mod AAshto Density.					
I-3.11		To fill in general areas	m³	1,000.0	53.97	53,970	00
I-3.12		Behind gabion walls	m³	3,750.0	53.97	202,387	50
I-3.13		topsoil to complete perimeter berm	m³	720.0	45.00	32,400	00
I-3.14		broken down builders rubble to complete perimeter berm core From commercial sources	m³	250.0	45.00	11,250	00
I-3.15		To complete platforms : G6 granular material (Final 150mm layer under surface beds)	m³	1,000.0	300.00	300,000	00
I-3.16		Dump Rock	m³	50.0	512.97	25,648	50
	8.3.6	Overhaul (provisional)					
I-3.17		Limited overhaul (between 500m freehaul and up to 1km)	m³	0.0	18.50	Rate Only	
Total Carried Forward						1,816,529	50

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

BULK EARTHWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						1,816,529	50
I-3.18		Long overhaul	m³.km	0.0	22.50	Rate Only	
I-3.19	8.3.9	Extra-over for backfill or fill material against structures	m³	50.0	209.00	10,450	00
		FINISHINGS					
I-3.20	8.3.10	Topsoiling - (150mm thick available from site)	m²	5,000.0	5.12	25,600	00
I-3.21	8.3.10	Topsoiling - (150mm thick Imported from commercial sources)	m²	0.0	76.62	Rate Only	
I-3.22	8.3.11	Grassing	m²	5,000.0	5.68	28,400	00
I-3.23		Supply all equipment (and water) to water the grassed area as directed by the engineer.	kl	500.00	30.00	15,000	00
		SPOIL UNSUITABLE					
I-3.24		Load and spoil off site all unsuitable and or excess material left on stockpiles	m³	2,000.0	86.90	173,800	00
Total Carried Forward To Summary						2,069,779	50
I-4	SANS 1200 DB	SECTION : PIPE TRENCHES					
		SITE CLEARANCE					
I-4.1	8.3.1(c)	Remove topsoil & grass to a depth of 100mm, stockpile separately and maintain.	m²	0.0	5.12	Rate Only	
	8.3.2(a)	EXCAVATION					
		Excavate in all materials for trenches (600mm wide) backfill, compact, and dispose of surplus/unsuitable material, for sewer pipes: 160 mm diam. for total trench depth:					
I-4.2		Exceeding 0m but not exceeding 1,50 m	m	0.0	64.15	0	00
I-4.3		Exceeding 1,5 m but not exceeding 2,0 m	m	200.0	87.91	17,582	00
I-4.4		Exceeding 2,0 m but not exceeding 2,5 m	m	80.0	115.31	9,224	80
I-4.5		Exceeding 2,5 m but not exceeding 3,0 m	m	0.0	156.89	Rate Only	
	8.3.2(a)	Excavate in all materials for trenches (800mm wide) backfill, compact, and dispose of surplus/unsuitable material, for sewer pipes: 250 mm diam. for total trench depth:					
I-4.6		Exceeding 0m but not exceeding 1,50 m	m	200.0	85.00	17,000	00
I-4.7		Exceeding 1,5 m but not exceeding 2,0 m	m	1,500.0	110.00	165,000	00
I-4.8		Exceeding 2,0 m but not exceeding 2,5 m	m	577.0	145.00	83,665	00
I-4.9		Exceeding 2,5 m but not exceeding 3,0 m	m	200.0	190.00	38,000	00
		Excavate in all materials for trenches (1200mm wide) backfill, compact, and dispose of surplus/unsuitable material, for storm water pipes: 525 mm diam. for total trench depth:					
I-4.10		Exceeding 1,0 m but not exceeding 2,0 m	m³	2,160.0	131.87	284,839	20
I-4.11		Exceeding 2,0 m but not exceeding 3,0 m	m³	990.0	224.61	222,363	90
		Excavate in all materials for trenches (1400mm wide) backfill, compact, and dispose of surplus/unsuitable material, for storm water pipes: 675mm diam. for total trench depth:					
I-4.12		Exceeding 1,0 m but not exceeding 2,0 m	m³	1,150.0	175.82	202,193	00
I-4.13		Exceeding 2,0 m but not exceeding 3,0 m	m³	530.0	292.33	154,934	90
		Excavate in all materials for trenches (2000mm wide) backfill, compact, and dispose of surplus/unsuitable material, for storm water pipes: 900mm diam. for total trench depth:					
I-4.14		Exceeding 1,0 m but not exceeding 2,0 m	m³	0.0	219.78	Rate Only	
I-4.15		Exceeding 2,0 m but not exceeding 3,0 m	m³	0.0	360.00	Rate Only	
		Excavate in all materials for trenches (600mm wide) backfill, compact, and dispose of surplus/unsuitable material, for trenches with up to 160mm dia water pipes, for total trench depth:					
I-4.16		Not Exceeding 1,1 m	m	1,500.0	59.40	89,100	00
Total Carried Forward						1,283,902	80

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : PIPE TRENCHES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						1,283,902	80
I-4.17		Excavate in all materials for trenches (600mm wide) backfill, compact, and dispose of surplus/unsuitable material, for trenches with up to 160mm dia ducts, for total trench depth: Not Exceeding 1,1 m	m	1,650.0	59.40	98,010	00
I-4.18		Excavate in all materials for trenches (400mm wide) backfill, compact, and dispose of surplus/unsuitable material, for subsoil drain trenches, for total trench depth: Not Exceeding 0,8 m	m	1,000.0	59.40	59,400	00
I-4.19		Excavate in all materials for trenches (400mm wide) backfill, compact, and dispose of surplus/unsuitable material, for water house connection trenches, for total trench depth: Not Exceeding 1,0 m	m	0.0	59.40	Rate Only	
I-4.20		Excavate in all materials for trenches (450mm wide) backfill, compact, and dispose of surplus/unsuitable material, for electrical cable trenches, for total trench depth: Not Exceeding 0,8 m	m	0.0	59.40	Rate Only	
I-4.21	8.3.2(b)	Extra-over the above excavation items for (prov): Intermediate excavation	m³	1,110.0	125.00	138,750	00
I-4.22		Hard rock excavation	m³	1,110.0	385.00	427,350	00
I-4.23	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m³	50.0	60.00	3,000	00
I-4.24	8.3.3.1(a)	EXCAVATION. ANCILLARIES Make up deficiency in backfill material (Provisional) from other necessary excavations on site	m³	50.0	36.00	1,800	00
I-4.25	8.3.3.3	Compaction in road reserves	m³	5,900.0	7.50	44,250	00
I-4.26	8.3.4(a)	Shoring and Bracing of Trenches for trenches up to but not exceeding: 1.10 - 1.50m depth	m	0.0	10.00	Rate Only	
I-4.27		over 1.5m up to 3.00m depth	m	2,000.0	25.00	50,000	00
I-4.28	8.3.5	EXISTING SERVICES Services across and in trenches Excavate by hand in soft material to expose existing services	m³	50.0	225.00	11,250	00
Total Carried Forward To Summary						2,117,712	80
I-5	SANS 1200 DM	SECTION : ROAD-BED & SUBGRADE					
I-5.1	8.3.3(a)	TREATMENT OF ROAD-BED Road-bed preparation and compaction of material Compact to 93 % mod. AASHTO maximum density (150mm thickness under roads)	m³	1,480.0	37.40	55,352	00
I-5.2		Compact to 90 % mod. AASHTO maximum density (150mm thickness under walkways and paved SW channel)	m³	584.0	120.00	70,080	00
I-5.3		SUBGRADE Construct subgrade from selected G7 material and compact to 95% Mod AASHTO density.	m³	1,480.0	64.97	96,155	60
I-5.4	SANS 1200 DM	SUNDRIES					
I-5.5	8.3.10	Materials bladed to windrow	m³	1,480.0	9.35	13,838	00
	8.3.11	Extra-over items for temporary stockpiling of material	m³	584.0	26.25	15,330	00
Total Carried Forward To Summary						250,755	60
I-6	SANS 1200 LB	SECTION : BEDDING					
Total Carried Forward						0	00

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : BEDDING (PIPES)

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						0	00
		PROVISION OF BEDDING Available from trench within 0,5 km (Subclause 3.4.1)					
I-6.1	8.2.1	a) Selected granular material	m ³	1,800.0	36.00	64,800	00
I-6.2		b) Selected fill material Imported from	m ³	1,500.0	36.00	54,000	00
	8.2.2.3	c) Commercial sources (Provisional)					
I-6.3		1) Selected granular material	m ³	0.0	234.30	Rate Only	
I-6.4		2) Selected fill material	m ³	0.0	234.30	Rate Only	
I-6.5	8.2.3	Concrete bedding (Provisional)	m ³	0.0	1,925.00	Rate Only	
I-6.6		19mm Stone bedding material (Provisional)	m ³	50.0	462.61	23,130	50
Total Carried Forward To Summary						141,930	50
I-7	SANS 1200 LC	SECTION : CABLE DUCTS					
	8.2.5	SUPPLY, LAY, BED, AND PROVE DUCTS					
I-7.1		110 mm dia " Kableflex" Communication Ducts (with draw wires)	m	2,800.0	57.34	160,552	00
I-7.2		110 mm dia PVC pipes (with draw wires)	m	250.0	72.74	18,185	00
I-7.3		160 mm dia PVC pipes (with draw wires)	m	250.0	128.77	32,192	50
	8.2.7	DRAW PITS/MANHOLES COMPLETE WITH TYPE ... COVER AND FRAME					
I-7.4		Draw pit 600 mm x 600 mm x 600 mm deep with rectangular thermo plastic lid	No.	50.0	1,920.00	96,000	00
I-7.5		Manhole 1 m x 1 m with Type concrete relacement cover and frame	No.	7.0	3,750.00	26,250	00
	PSLC3.4	SUNDRIES					
I-7.6		Mark road crossings (Both sides)	No.	40.0	40.00	1,600	00
I-7.7		Fit End Cap and Seal duct ends	No.	110.0	32.76	3,603	60
Total Carried Forward To Summary						338,383	10
I-8	SANS 1200 L	SECTION : WATER MAINS PIPELINE					
	8.2.1	Supply, lay, joint (bedding for flexible pipes) and test Class 12 uPVC (Z-lock) pipes including one coupling per pipe					
I-8.1		110 mm diam.	m	200.0	107.39	21,478	00
I-8.2		160 mm diam.	m	1,050.0	201.92	212,016	00
I-8.3		200 mm diam.	m	150.0	300.00	45,000	00
I-8.4		250 mm diam.	m	100.0	400.00	40,000	00
	8.2.1	Supply, lay, joint (bedding for flexible pipes) and test Class 12 HDPE pipes including one coupling per pipe for House Connections					
I-8.5		75 mm diam.	m	0.0	85.00	Rate Only	
I-8.6		50 mm diam.	m	0.0	60.00	Rate Only	
		DISINFECT PIPELINES					
I-8.7		uPVC pipeline	Sum	1.0	2,500.00	2,500	00
I-8.8		HDPE pipeline	Sum	0.0	2,500.00	Rate Only	
	SANS 1200 L	SPECIALS AND FITTINGS					
	8.2.2	Supply, lay, joint, cut pipes to lenth where required and test fittings, for use with Class 16 uPVC pipes					
		End Caps					
I-8.9		110mm ø	No	27.00	206.94	5,587	38
I-8.10		160mm ø	No	6.00	310.00	1,860	00
		Bends					
I-8.11		160mm ø x 90 deg.	No	0.00	320.00	Rate Only	
I-8.12		160mm ø x 45 deg.	No	5.00	320.00	1,600	00
I-8.13		160mm ø x 22.5 deg.	No	5.00	280.00	1,400	00
Total Carried Forward						331,441	38

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						331,441	38
I-8.14		160mm ø x 11.25 deg. Reducing Tees	No	7.00	280.00	1,960	00
I-8.15		250mm ø x 160mm ø	No	2.00	2,300.00	4,600	00
I-8.16		160mm ø x 110mm ø Equal Tees	No	30.00	904.62	27,138	60
I-8.17		160mm ø	No	3.00	857.32	2,571	96
I-8.18		110mm ø Reducers	No	4.00	437.53	1,750	12
I-8.19		160mm ø x 110mm ø	No	3.00	473.00	1,419	00
I-8.20		250mm ø x 160mm ø Hydrant Tees	No	2.00	987.39	1,974	78
I-8.21		160mm ø	No	7.00	934.18	6,539	26
I-8.22		110mm ø Puddle pipes (600mm long)	No	27.00	579.43	15,644	61
I-8.23		160mm ø	No	7.00	3,665.75	25,660	25
I-8.24		110mm ø Flange Adaptors	No	0.00	2,128.50	Rate Only	
I-8.25		250mm ø	No	2.00	3,500.00	7,000	00
I-8.26		160mm ø	No	7.00	520.30	3,642	10
I-8.27		110mm ø VJ Couplings	No	0.00	271.92	Rate Only	
I-8.28		250mm ø	No	2.00	2,500.00	5,000	00
I-8.29		160mm ø	No	2.00	585.34	1,170	68
I-8.30		110mm ø	No	2.00	579.43	1,158	86
		Supply, lay, joint, cut pipes to length where required and test "Plason" fittings, for use with Class 12 HDPE pipes					
I-8.31		Saddles - 110mm dia drilled 32mm Dia	No	0.0	171.47	Rate Only	
I-8.32		32mm dia Plug	No	0.0	28.97	Rate Only	
I-8.33		32mm dia Equal Tee	No	0.0	69.36	Rate Only	
I-8.34	8.2.6	32mm dia Stop taps complete with special fittings	No.	0.0	247.15	Rate Only	
I-8.35		25mm dia water meter complete with housing and fittings as detailed (stop taps before and after measured elsewhere)	No.	0.0	1,194.33	Rate Only	
		VALVES					
	8.2.3	Supply, joint, sluice valves to watrworks pattern, class 16, left hand closing, non-rerising spindle, with cap top, complying with SABS 664 and fitted with resilient seals (Double flanged and drilled in accordance with SABS 1123) Plain-ended valves incl two couplings:					
I-8.36		250 mm diam.	No.	1.0	15,000.00	15,000	00
I-8.37		160 mm diam.	No.	8.0	8,275.58	66,204	64
I-8.38		110 mm diam.	No.	27.0	4,931.85	133,159	95
		FIRE HYDRANTS					
I-8.39		65mm ø London v-thread fire hydrant for under ground installation as detailed	No	7.00	4,523.07	31,661	49
I-8.40		Hydrant above ground level including concrete encasement, as detailed on the drawings	No.	0.0	0.00	Rate Only	
I-8.41		Hydrant TWIN booster configuration at entrance	No.	27.0	7,500.00	202,500	00
		ANCILLARIES					
	8.2.11	Anchor/Thrust blocks and pedestals					
I-8.42		Concrete Class M20/19	m³	4.0	1,694.00	6,776	00
		VALVE CHAMBERS AND MANHOLES:					
I-8.43	8.2.13 8.2.14	Valve chamber complete as detailed on the drawings	No.	36.0	1,200.00	43,200	00
I-8.44		Hydrant chamber complete as detailed on the drawings	No.	34.0	1,600.00	54,400	00
I-8.45		Bulk Water meter chamber complete as detailed on the drawings (excluding Meter)	No.	27.0	12,000.00	324,000	00
		MAIN CONNECTION					
Total Carried Forward						1,315,573	68

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

WATER MAINS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						1,315,573	68
I-8.46		Break into existig watr main, excavate, fit and test the connection, bakcfill and compact	Sum	2.00	5,000.00	10,000	00
I-8.47		Supply, deliver and install 80mm bulk water meter including housing fittings etc.	Sum	2.00	68,116.62	136,233	24
I-8.48		Reinstate road surface at roadcrossing, complete including restricted layerworks and surfacing	m ²	30.00	375.00	11,250	00
I-8.49		MARKER POSTS Valve and hydrant markers	No	70.00	40.00	2,800	00
Total Carried Forward To Summary						1,475,856	92
I-9	SANS 1200 LD 8.2.1	SECTION : SEWERS PIPEWORK Supply, lay, joint, bedding for flexible pipes and test Class 34 solid wall uPVC sewer pipes including one coupling per pipe.					
I-9.1		160 mm dia.	m	280.0	127.67	35,747	60
I-9.2		200mm dia.	m	2,477.0	227.00	562,279	00
	8.2.2	Extra-over item .3 for supply, lay, joint, bed and test the following specials:					
I-9.3		200 mm dia x 160 mm dia pipe junctions	No.	27.0	124.17	3,352	59
I-9.4		160 mm dia x 45 deg. bends	No.	54.0	53.22	2,873	88
I-9.5		160 mm dia end caps	No.	27.0	17.74	478	98
	1200 LD 8.2.3	MANHOLES, ETC. Manholes complete as detailed on the drawings for the following depths:					
I-9.6		0.5m to 1.0m	No.	1.0	5,288.80	5,288	80
I-9.7		1.0m to 1.5m	No.	10.0	6,322.80	63,228	00
I-9.8		1.5m to 2.0m	No.	26.0	7,354.60	191,219	60
I-9.9		2.0m to 2.5m	No.	5.0	8,387.50	41,937	50
I-9.10		2.5m to 3.0m	No.	1.0	9,420.40	9,420	40
I-9.11		Extra-over item .5 for Type 2A cover and frame in road areas	No.	43.0	2,420.00	104,060	00
I-9.12		160mm dia Rodding eye complete as detailed	No.	0.0	0.00	Rate Only	
		SUNDRIES					
I-9.13	8.2.8	20MPa concrete Anchor blocks	m ³	2.0	1,694.00	3,388	00
I-9.14	8.2.9	Marker posts, complete, installed	No.	27.0	40.00	1,080	00
I-9.15	8.2.11	Break into and connect to existing manhole including flexible joints and make good all benching	No.	1.0	1,250.00	Rate Only	
I-9.16	8.2.12	Raising or lowering of existing manholes	No.	0.0	750.00	Rate Only	
Total Carried Forward To Summary						1,024,354	35
I-10	SANS 1200 LE 8.2.1	SECTION :STORMWATER DRAINAGE PIPES Supply, handle, lay, bed Class 75D concrete storm water pipes with interlocking Joints					
I-10.1		300 mm diameter	m	0.0	332.00	Rate Only	
I-10.2		375 mm diameter	m	597.0	373.82	223,170	54
I-10.3		450 mm diameter	m	311.0	454.65	141,396	15
I-10.4		525 mm diameter	m	289.0	554.93	160,374	77
I-10.5		600 mm diameter	m	150.0	686.00	102,900	00
I-10.6		675 mm diameter	m	391.0	895.88	350,289	08
I-10.7		750 mm diameter	m	0.0	1,066.10	Rate Only	
I-10.8		825 mm diameter	m	0.0	1,173.23	Rate Only	
I-10.9		900 mm diameter	m	0.0	1,383.91	Rate Only	
I-10.10		1050 mm diameter	m	0.0	1,821.75	Rate Only	
	8.2.1	Supply, handle, lay, bed concrete Box Culverts complete including precast Base slabs					
I-10.11		450 x 450 mm	m	60.0	1,195.00	71,700	00
Total Carried Forward						1,049,830	54

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : STORMWATER DRAINAGE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						1,049,830	54
I-10.12	8.2.8	KERB INLETS Construct complete as detailed on the drawings Single	No.	3.0	5,500.00	16,500	00
I-10.13	8.2.8	Double GRID INLETS Construct complete as detailed on the drawings (complete including brickwork, foundation and benching)	No.	8.0	7,260.00	58,080	00
I-10.14		0.6m long	No.	20.0	5,400.00	108,000	00
I-10.15		1.2 m long	No.	7.0	6,400.00	44,800	00
I-10.16	8.2.8	FIELD INLETS Construct complete as detailed on the drawings (complete including brickwork, foundation and benching) 1.0m square BRICKWORK With Engineering bricks in English Bond (For junction boxes, and outlet structures)	No.	2.0	5,400.00	10,800	00
I-10.17	8.2.9(a)	115 mm thick	m ²	10.0	238.66	2,386	60
I-10.18		230 mm thick	m ²	340.0	466.31	158,545	40
I-10.19	8.2.9(c)	Benching in prescribed mix 20 concrete with granolithic rendering	m ²	60.0	200.00	12,000	00
I-10.20		300mm thick 25Mpa Concrete foundation with mesh ref 617 placed centrally	m ²	130.0	499.95	64,993	50
I-10.21	8.2.10	ACCESSORIES Manhole Covers & frames	No.	10.0	1,850.00	18,500	00
I-10.22		Gulley connections including junction, grid head & PVC connection pipe for garden connections (PVC - System TERMINATION POINTS)	No.	0.0	0.00	Rate Only	
I-10.23		SUB-SOIL DRAINS 110mm dia perforated Kaytech geo pipe	m	1,000.0	58.44	58,440	00
I-10.24		Grade A5 Geotextile	m ²	1,600.0	16.37	26,192	00
I-10.25		19mm stone surround	m ³	120.0	435.11	52,213	20
I-10.26		ATTENUATION & SW CHANNEL SUNDRIES Armorflex DN140 in low flow channel (& overflow cahnnel) laid on Grade A5 biddim and anchored as detailed	m ²	400.0	268.40	107,360	00
I-10.27		170mm thick Reno matress complete including wire baskets, (imported stone 125mm nominal size)	m ³	50.0	1,485.00	74,250	00
I-10.28		Gabion Walls complete including wire baskets, (imported stone 125mm nominal size)	m ³	1,125.0	1,485.00	1,670,625	00
I-10.29		Grade A5 Geotextile	m ²	2,650.0	16.37	43,380	50
I-10.30		1.5m high palisade fencing	m	750.0	1,204.50	903,375	00
I-10.31		Excavate and shapre Grassed v-drain 3m wide x 0.5m deep including topsoiling from stockpile and grassing with anchoring of sods	m	0.0	179.85	Rate Only	
Total Carried Forward To Summary						4,480,271	74
I-11	SANS 1200 ME 8.3.2	SECTION : SUBBASE Construct gravel subbase with material from designated excavations					
I-11.1	1200 ME 8.3.2	b) Construct subbase course with material from stockpile : 100mm thick selected G6 / G7 quality material to Internal walkways	m ³	584.0	120.00	70,080	00
I-11.2	1200 ME 8.3.3	Construct subbase with material from commercial sources 150mm Thick G7 Quality	m ³	0.0	239.87	Rate Only	
Total Carried Forward						70,080	00

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : SUBBASE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						70,080	00
I-11.3		150mm Thick G6 Quality	m ³	1,480.0	239.87	355,007	60
I-11.4		150mm Thick G5 Quality	m ³	1,480.0	410.36	607,332	80
I-11.5	8.3.5	Process material by means of:					
		Stabilizing	m ³	2,064.0	35.00	72,240	00
I-11.6	8.3.8	Stabilizing agent					
		Road lime	t	0.0	1,369.10	Rate Only	
I-11.7		Portland cement	t	124.0	1,586.20	196,688	80
Total Carried Forward To Summary						1,301,349	20
I-12	SANS 1200 MF	SECTION : BASE					
	8.3.2	Construct gravel base with material from designated excavations					
	1200 ME	b) Construct base course with material from stockpile :					
I-12.1	8.3.2	150mm thick selected G3 / G4 quality material to Internal Access Road	m ³	0.0	95.00	Rate Only	
	8.3.3	Construct base with material from commercial sources					
		a) Gravel material					
I-12.2		150mm thick G2 quality material to Internal Road	m ³	0.0	797.14	Rate Only	
I-12.3		150mm thick G3 quality material to Internal Road	m ³	1,326.0	721.68	956,947	68
I-12.4		150mm thick G4 quality material to Internal Road	m ³	0.0	633.77	Rate Only	
I-12.5		150mm thick G5 quality material to Internal Road	m ³	0.0	410.36	Rate Only	
		b) Graded crushed stone					
I-12.6		100mm Thick G1 to external bell mouth area and hard court area	m ³	0.0	990.00	Rate Only	
	8.3.5	Process base by means of:					
I-12.7	8.3.8	d) Stabilization	m ³	0.0	35.00	Rate Only	
		Stabilizing agent					
I-12.8		Road lime	t	0.0	1,369.10	Rate Only	
I-12.9		Portland cement	t	0.0	1,586.20	Rate Only	
Total Carried Forward To Summary						956,947	68
I-13	SANS 1200 MH	SECTION : ASPHALT BASE AND SURFACING					
		PRIME COAT					
	8.5.1	Prime coat using:					
I-13.1		MC-30 cut-back bitumen	m ²	8,840.0	17.61	155,672	40
I-13.2		Invert bituminous emulsion ("MSP1 or similar approved)	m ²	0.0	18.50	Rate Only	
	8.5.4	ASPHALT SURFACING					
		Continuously graded, medium grade surfacing using:					
I-13.3		a) 50/70 penetration grade bitumren - 30 mm thick	m ²	8,840.0	101.18	894,431	20
I-13.4		b) 50/70 penetration grade bitumren - 25 mm thick	m ²	0.0	95.00	Rate Only	
Total Carried Forward To Summary						1,050,103	60
I-14		SECTION : SEGMENTED PAVING					
I-14.1	8.2.3	Cut Units To Fit Edge Restraints	m	4,150.0	17.05	70,757	50
	8.2.2	CONSTRUCT PRECAST CONCRETE					
		SEGMENTED PAVING					
I-14.2		on Internal walkways - Type 50mm grey (100mm x 100mm) coble stone paving blocks. (25MPA - complete including 25mm riversand bed)	m ²	350.0	254.90	89,215	00
Total Carried Forward						159,972	50

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : SEGMENTED PAVING

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						159,972	50
I-14.3		on Internal Walkway - Type 60mm red square paving blocks. (25MPa - complete including 25mm riversand bed)	m ²	50.0	176.23	8,811	50
I-14.4		on Internal Walkway - Type 60mm grey interlocking paving blocks. (25MPa - complete including 25mm riversand bed)	m ²	3,372.0	165.54	558,200	88
I-14.5		on Internal Roadway - Type 80mm grey interlocking paving blocks. (25MPa - complete including 25mm riversand bed)	m ²	0.0	178.00	Rate Only	
I-14.6		on Internal Roadway - Type 80mm red square paving blocks. (25MPa - complete including 25mm riversand bed)	m ²	0.0	189.32	Rate Only	
I-14.7	8.2.2	CONSTRUCT ARMORFLEX CHANNEL on Internal SW channel - Type DN 140 Armorflex - on Grade A5 biddim completely anchored on sides as detailed	m ²	0.0	268.40	Rate Only	
Total Carried Forward To Summary						726,984	88
I-15	SANS 1200 MK	SECTION : KERBING AND CHANNELLING					
		Precast Concrete Kerbing & Channelling - Complete as detailed on the drawing including 15MPa concrete bedding and backing where applicable.					
I-15.1	8.2.2	Type BK 2 - Barrier Kerb	m	2,060.0	130.14	268,088	40
I-15.2		Type BK 4 - Barrier Kerb	m	0.0	145.23	Rate Only	
I-15.3		Type CK 5 - Mountable Kerb / Channel Combination	m	150.0	166.53	24,979	50
I-15.4		Type C 1 - Channel	m	2,060.0	133.61	275,236	60
I-15.5		Type MK 10 - Mountable Kerb	m	150.0	114.57	17,185	50
I-15.6		Type MK 11 - Mountable Kerb	m	0.0	120.00	Rate Only	
I-15.7		Type MK 2 - Semi Mountable Kerb	m	150.0	148.03	22,204	50
I-15.8		Type E 1 - Edging	m	2,075.0	72.08	149,566	00
		Cast in-situ Concrete Kerbing & Channelling - Complete as detailed on the drawing including 30MPa concrete, Shuttering & Curing of Concrete, Smooth Finish to Concrete and Reinforcing Steel where applicable.					
I-15.9		Cast in-situ Transition kerbs	m	120.0	150.00	18,000	00
I-15.10		300 x 300 Reinforced Edge Beam (4 x Y12 bars in corners with R8 stirrups @ 500 mm spacing)	m	80.0	189.00	15,120	00
I-15.11		Cast in-situ edge restraint (100 wide x 150 deep)	m	0.0	0.00	Rate Only	
I-15.12		Cast in-situ channel (150 wide x 230 deep)	m	0.0	0.00	Rate Only	
I-15.13		Cast in-situ channel (200 wide x 230 deep)	m	0.0	0.00	Rate Only	
I-15.14		Extra over for curved kerbing (R= 0 to 6m)	m	20.0	39.93	798	60
I-15.15		Extra over for curved kerbing (R= 6 to 20)	m	500.0	39.93	19,965	00
Total Carried Forward To Summary						811,144	10
I-16	SANS 1200 MM	SECTION : ANCILLARY ROADWORKS					
I-16.1	8.3.1	PERMANENT TRAFFIC SIGNS Standard Stop Sign complete including post and foundation. Sign faces with painted or galvanized (as stated) background. Symbols, characters, legend, and borders in engineering grade retroreflective material with signboards constructed from	No.	7.0	762.30	5,336	10
I-16.2		a) Aluminium sheet (2,0 mm thick), of area over 2 m2 and up to 10 m2 c) Sheet steel (1,6 mm thick), of area Over and Up to	m ²	0.0	966.90	Rate Only	
Total Carried Forward						5,336	10

17-05-2018

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SECTION : ANCILLARY ROADWORKS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
						R	c
Brought Forward						5,336	10
I-16.3		- 2 m2	m ²	10.0	1,105.50	11,055	00
	8.3.2	Extra-Over Item .2 for using					
I-16.4		a) Engineering grade retroreflective background	m ²	10.0	280.83	2,808	30
	8.3.3	Sign Supports					
I-16.5		b) Steel tubing - galvanized	No.	20.0	118.25	2,365	00
I-16.6	8.1.1 & 8.3.4	Excavation for sign supports and backfilling with in-situ material	m ³	16.0	150.00	2,400	00
I-16.7	8.3.7	Statutory signs, street names, and the like, supplied and erected complete	No.	8.0	762.30	6,098	40
	8.3.7	Dismantling and re-erection of road signs having a surface area of Over and Up to					
I-16.8		- 2 m2	No.	0.0	150.00	Rate Only	
		ROAD MARKINGS					
	8.4.1	Non-reflectorized paint applied at nominal rate of 0,42 l/m2 (or proprietary brand roadmarking material applied at a nominal rate of ... l/m2)					
I-16.9		a) Standard Stop Sign	No.	0.0	357.50	Rate Only	
I-16.10		a) White lines (broken or unbroken) (width = 100mm)	m	0.0	6.38	Rate Only	
I-16.11		b) 100mm wide x 5m long White Parking line	m	0.0	9.57	Rate Only	
I-16.12		b) Yellow lines (broken or unbroken) (width = 100mm)	m	0.0	6.38	Rate Only	
I-16.13		c) White characters and symbols	m ²	0.0	74.80	Rate Only	
I-16.14		d) Yellow characters and symbols	m ²	0.0	74.80	Rate Only	
I-16.15		e) Traffic island markings (any colour)	m ²	0.0	74.80	Rate Only	
	8.4.2	Variation in rate of application from that stated for item .3					
I-16.16		a) White paint	ℓ	0.0	49.50	Rate Only	
I-16.17		b) Yellow paint	ℓ	0.0	49.50	Rate Only	
		Thermo plastic road marking paint					
I-16.18		a) Standard Stop Sign	No.	7.0	484.69	3,392	83
I-16.19		a) White lines (broken or unbroken) (width = 100mm)	m	1,000.0	9.57	9,570	00
I-16.20		b) Yellow lines (broken or unbroken) (width = 100mm)	m	2,000.0	9.57	19,140	00
I-16.21		c) White characters and symbols	m ²	50.0	258.50	12,925	00
I-16.22		d) Yellow characters and symbols	m ²	50.0	258.50	12,925	00
I-16.23		e) Traffic island markings / Speed Hump markings (any colour)	m ²	20.0	258.50	5,170	00
I-16.24		f) 100mm wide x 5m long White Parking line	m	0.0	14.36	Rate Only	
		Variation in rate of application from that stated for item .3					
I-16.25		a) White paint	ℓ	0.0	88.00	Rate Only	
I-16.26		b) Yellow paint	ℓ	0.0	88.00	Rate Only	
Total Carried Forward To Summary						93,185	63
I-17		ELECTRICAL					
I-17.1		Electrical sum including: RMU to supply larger sites with MV Connections (6 off) Miniature sub stations to supply the smaller sites (21 off) medium voltage cable installation Low voltage cable installation Earthing system	Sum	1.0	3,639,617.00	3,639,617	00
Total Carried Forward To Summary						3,639,617	00

ERF 15712, WELLINGTON

Contract 323/2018-01 : Internal Engineering Services

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
I-1	PRELIMINARY AND GENERAL	2,361,450.00
I-2	SITE CLEARANCE	895,400.00
I-3	BULK EARTHWORKS	2,069,779.50
I-4	PIPE TRENCHES	2,117,712.80
I-5	ROAD-BED & SUBGRADE	250,755.60
I-6	BEDDING	141,930.50
I-7	CABLE DUCTS	338,383.10
I-8	WATER MAINS	1,475,856.92
I-9	SEWERS	1,024,354.35
I-10	STORMWATER DRAINAGE	4,480,271.74
I-11	SUBBASE	1,301,349.20
I-12	BASE	956,947.68
I-13	ASPHALT BASE AND SURFACING	1,050,103.60
I-14	SEGMENTED PAVING	726,984.88
I-15	KERBING AND CHANNELLING	811,144.10
I-16	ANCILLARY ROADWORKS	93,185.63
I-17	ELECTRICAL	3,639,617.00
	SUBTOTAL	23,735,226.60
1	Add 10% CONTINGENCIES	2,373,522.66
	SUBTOTAL	26,108,749.26
2	Add 15% VAT	3,916,312.39
	Total Carried Forward To Summary Of Schedules	30,025,061.65