Pay Ref	Item No		<u>Unit</u>	Quantity	Rate	<u>Amount</u>
		BILL NO. 1				
		PRELIMINARIES AND GENERAL				
		NOTES				
		i) The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2010) (Second Edition), published by the S. A. Institution Of Civil Engineering.				
		ii) The Preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein.				
		iii) Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary.				
		iv) Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading.				
		v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable").				
		Carried to Collection BILL NO 1 PRELIMINARIES			R	

	vi) Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time. vii) Time (T) related Preliminaries will only be adjusted for ommissions or additions, issued by the Employer, or delays caused by the Employer, for which variation			
	and extension of time has been granted.			
	PREAMBLES FOR TRADES			
	The Model Preambles for Trades (latest edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles			
	The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles			
	SECTION A: GENERAL CONDITIONS OF CONTRACT			
	General (A1)			
1	Definitions			
	F: V: T:	Item		
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Clause 1.1

Clause 1.2	2	Interpretations			
		F: V: T:	Item		
Clause 1.3	3	General Provisions			
		 F:	Item		
		Basis of Contract (A2)	item		
Clause 2.1	4	Available data and information			
Olduso 2.1		Available data and information			
		F: V: T:	Item		
Clause 2.2	5	Adverse physical conditions			
		F: V: T:	Item		
Clause 2.3	6	Technical Data			
		F: V: T:	Item		
Clause 2.4	7	Abiguity or discrepancy			
		F: V: T:	Item		
Clause 2.5	8	Assignment			
		F: V: T:	Item		
		Engineer (A3)			
Clause 3.1	9	Functions of the Engineer			
		F: V: T:	Item		
Clause 3.2	10	Engineer's Representative			
		F: V: T:	Item		
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		Contractor's General Obligations (A4)				
Clause 4.1	11	Extent of obligations and liability				
		F: V: T:	Item			
Clause 4.2	12	Engineer's Instructions				
		F: T:	Item			
Clause 4.3	13	Legal Provisions				
		F: V: T:	Item			
Clause 4.4	14	Subcontracting				
		F: V: T:	Item			
Clause 4.5	15	Notices and fees	Item			
<u> </u>	10	F: V: T:	Item			
Clause 4.6	16	Patent rights				
3.00000	. •	. a.o.u. ngme				
		F: V: T:	Item			
Clause 4.7	17	Fossils				
		F: V: T:	Item			
Clause 4.8	18	Facilities for others				
		F: V: T:	Item			
Clause 4.9	19	Construction Equipment				
		F: V: T:	Item			
Clause 4.10	20	Contractor's employees				
		F: V: T:	Item			
		V	Item			
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		<u>PRELIMINARIES</u>				
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<u>Clause 4.11</u>	21	Competent employees			
Clause 4.12	22	F: V: T: Contractor's superintendence	Item		
		F: V: T:	Item		
Clause 5.1	23	Time and Related Matters (A5) Time calculations			
Clause 5.2	24	F: V: T:	Item		
		F: V: T:	Item		
Clause 5.3	25	Commencement of the work			
Clause 5.4	26	F: V: T:	Item		
Clause 5.5	27	F: V: T:	Item		
Clause 3.3	21	F: V: T:	Item		
Clause 5.6	28	Programme			
Clause 5.7	29	F: V: T:	Item		
		F: V: T:	Item		
Clause 5.8	30	Non-working times F:T:	Item		
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Clause 5.9	31	Instructions			
		F: V: T:	Item		
<u>Clause 5.10</u>	32	Delays attributable to the employer			
		F: V: T:	Item		
<u>Clause 5.11</u>	33	Suspension of the works			
		F: V: T:	Item		
<u>Clause 5.12</u>	34	Extention of time for practical completion			
		F: V: T:	Item		
<u>Clause 5.13</u>	35	Penalty for delay			
		F: V: T:	Item		
Clause 5.14	36	Completion			
		F: V: T:	Item		
<u>Clause 5.15</u>	37	Clearance of site			
		F: V: T:	Item		
<u>Clause 5.16</u>	38	Approval			
		F: V: T:	Item		
		Payment and Related Matters (A6)			
Clause 6.1	39	Payment to the contractor			
		F: V: T:	Item		
Clause 6.2	40	Security			
		F: V: T:	Item		
Clause 6.3	41	Variations			
		F: V: T:	Item		
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Clause 6.4	42	Value of variations				
		F: V: T:	Item			
Clause 6.5	43	Dayworks				
		F: V: T:	Item			
Clause 6.7	44	Measurement of works				
		F: V: T:	Item			
Clause 6.8	45	Adjustment in rates and/or prices				
		F: V: T:	Item			
Clause 6.9	46	Vesting of plant and materials				
		F: V: T:	Item			
<u>Clause 6.10</u>	47	Payments				
		F: V: T:	Item			
<u>Clause 6.11</u>	48	Variations exceeding 15 per cent				
		F: V: T:	Item			
		Quality and Related Matters (A7)				
Clause 7.1	49	Quality of Construction Equipment				
		F: V: T:	Item			
Clause 7.2	50	Quality of Plant, workmanship and materials				
		F: V: T:	Item			
Clause 7.3	51	Access to the works				
		F: V: T:	Item			
Clause 7.4	52	Samples and Testing				
		F: V: T:	Item			
Clause 7.5	53	Examination of the works				
		F: V: T:	Item			
Clause 7.6	54	Defective plant, materials and work				
		F: V: T:	Item			
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Clause 7.7	55	Search for defects			
		F: V: T:	Item		
Clause 7.8	56	Defects			
		F: V: T:	Item		
Clause 7.9	57	Urgent remedial work			
		F: V: T:	Item		
		Risk and Related Matters (A8)			
Clause 8.1	58	Protection of the works			
		F: V: T:	Item		
Clause 8.2	59	Care of the works			
		F: V: T:	Item		
Clause 8.3	60	Excepted risks			
		F: V: T:	Item		
Clause 8.4	61	Indemnifications			
		F: V: T:	Item		
Clause 8.5	62	Reporting accidents			
		F: V: T:	Item		
Clause 8.6	63	Insuarances			
		F: V: T:	Item		
		Termination of the Contract (A9)			
Clause 9.1	64	Termination of the contract			
		F: V: T:	Item		
Clause 9.2	65	Termination by employer			
		F: V: T:	Item		
Clause 9.3	66	Termination by Contractor			
		F: V: T:	Item		
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		Claims and Disputes (A10)			
<u>Clause 10.1</u>	67	Contractor's claim			
		F: V: T:	Item		
Clause 10.2	68	Dissatisfaction claim			
		F: V: T:	Item		
Clause 10.3	69	Dispute notice			
		F: V: T:	Item		
<u>Clause 10.4</u>	70	Amicable settlement			
		F: V: T:	Item		
<u>Clause 10.5</u>	71	Adjudication			
		F: V: T:	Item		
Clause 10.6	72	Disagreement with Ajudication Board's decision			
		F: V: T:	Item		
<u>Clause 10.7</u>	73	Arbitration			
		F: V: T:	Item		
<u>Clause 10.8</u>	74	Court proceedings			
		F: V: T:	Item		
<u>Clause 10.9</u>	75	Appointment			
		F: V: T:	Item		
<u>Clause 10.10</u>	76	Common provisions			
		F: V: T:	Item		
<u>Clause 10.11</u>	77	Continuing validity			
		F: V: T:	Item		
		SECTION E: SPECIFIC PRELIMINARIES			
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		PRELIMINARIES			
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SANS 1200		Facilities required by Engineer				
PSAB1	78	Contract Sign board				
		F: V: T:	Item			
PSAB3	79	Cellular phone				
		F: V: T:	Item			
PSA2	80	Additional tests required by engineer	Item		10 000	00
SANS 1200	81	Overhead and profits	%			
PSA3	82	Community Liason Officer				
		F: V: T:	Item		10 000	00
SANS 1200	83	Overhead and profits	%			
PSA8	84	Re-instatement of boundary pegs				
		F: V: T:	Item		2 000	00
SANS 1200	85	Overhead and profits	%			
PSA8	86	Re-instatement of boundary pegs				
		F: V: T:	Item		2 000	00
SANS 1200	87	Overhead and profits	%			
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ALT	TERATIONS			
For	preambles see "Model Preambles for Trades"			
SUF	PPLEMENTARY PREAMBLES			
Viev	<u>w site</u>			
and don or p varia exte	ore submitting his tender the contractor shall visit the site satisfy himself as to the nature and extent of the work to be e and the value of the materials contained in the buildings ortions of the buildings to be demolished. No claim for any ations of the contract sum in respect of the nature and ent of the work or of inferior or damaged materials will be extained			
Ехр	losives			
No e	explosives whatsoever may be used in demolitions			
Gen	neral			
mes to a prop tarp worl	contractor shall carry out the whole of the work with as little as and noise as possible and with a minimum of disturbance djoining premises and their tenants. He shall provide per protection and provide and erect any temporary aulins that may be necessary during the progress of the ks, all to the satisfaction of the principal agent, and remove an directed			
the	contractor will be required to take all dimensions affecting existing building on the site and he will be held solely consible for the accuracy of all such dimensions			
floor mate one scre	ere existing screeds are described to be prepared for new r finishes, the screeds are to be scraped clean of loose erials and glue and vacuumed, cleaned and treated with coat "Pavelite Bond" and levelled with two coats "Pavelite" eed levelling compound all in accordance with "Floorworx" inical bulletin for floor coverings No 15			
and stop	water supply pipes and other piping that may be met with found necessary to disconnect or cut, shall be effectually piped off or grubbed up and removed, and any new nections that may be necessary shall be made with proper ngs, to the satisfaction of the principal agent			
	Carried to Collection L NO 1 TERATIONS		R	
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Prices

Prices for doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be deemed to include for thorough overhaul ing before refixing, including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and easing, oiling, adjusting and repairing ironmongery if necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match the timber

Prices for doors, windows, etc with frames where described as to be taken out shall be deemed to include for the removal of all beads, architraves, ironmongery, etc. Doors with frames which are to be re-fixed are to be provided with new architraves (architraves measured elsewhere)

Prices to take out and remove doors and frames shall be deemed to include for removing door stops, cabin hooks, etc and making good of holes

Prices for building up of openings in existing walls shall be deemed to include for levelling and preparing of cement screeds, pavings, granolithic, etc, for raising of masonry

Prices for making good of finishes shall be deemed to include making good of the masonry and concrete surfaces onto which the new finishes are applied

HANDING OVER OF MATERIALS

Where certain materials or articles from demolitions are described as to be handed over by the Contractor to the Regional Representative or Representative/Agent, the Contractor shall obtain an official receipt listing the materials or articles and dates of handing over. If the Contractor fails to submit the receipt when requested to do so, it shall be deemed that the materials or articles are still in his possession and he will be held liable to the Employer for the full replacement value thereof which amount will be deducted from any monies due to the Contractor

EXISTING FURNITURE, EQUIPMENT, ETC

The Contractor shall not remove or damage any furniture, equipment or similar items that belong to the Employer except when specifically described in the items to follow:

The Contractor must give the Representative/Agent sufficient notice if the removal of these items are required before any prescribed alterations can be done

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ALTERATIONS

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Work and material The work to be done and materials to be used in the alterations are to be similar to those specified in the new work in so far as they apply Abbreviations For the purpose of this bill certain abbreviations have been made use of, the full meanings of which are as follows: "Breaking down and removing" walls, etc implies that the wall is to be taken down to the extent shown on the drawings or as may be described and that all necessary shoring is to be provided and allowed for to ensure the safety of the building during the pulling down or until new walls are erected and all portions of the remaining walls where disturbed or affected by the removal are to be made good and left ready for the plaster

"Taking out and removing doors, windows, etc" implies that the door, etc is to be carefully taken down together with the frame, linings, architraves, window sills, etc complete and where brick lintels occur, it must be supported and propped until the openings are built up or new doors or windows built in position

"Setting aside for re-use" implies that special care is to be exercised in the taking down of any particular article that may require to be refixed and so avoid unnecessary repairs and making good and such articles are to be carefully stored in a dry place and kept free from damage

"Forming openings" for doors or windows, etc implies that the plaster or any other covering is to be hacked off and an opening formed sufficient in size to receive the building in of the frame and cramps, and the forming of new dampproof courses, lintels, sills, etc. After building in of the new frame, the opening is to be built against the frame, plaster or faced brickwork to be made good both sides and reveals and floor screeds prepared for finishings to match existing

"Refixing" implies that the articles or fittings referred to are to be refixed in the new position together with all the necessary finishings such as linings, architraves, skirtings, locks and furniture, etc complete and in every respect similar to such articles before removal, and allowance is to be made for any necessary adjustments or alterations for the proper adaption of same to the new position

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or other finishings

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	"Making good" implies that all necessary repairs are to be made to reinstate articles that may be damaged through the removal or otherwise, and the supplying of any new materials to match existing work, and is to include any necessary repairs to adjacent finishings such as floors, skirtings, plaster, painting, etc and such making good is to match adjoining work in all respects and in all trades				
	"Building up opening" implies that after the removal of any doors, windows or screens that may be described to be taken down, the opening is to be filled up solid (or to the thickness as shown) with new brickwork and is to include all necessary cutting away to form toothings to thoroughly bond to the new work and new finishes to both sides as described. Paint described in such items implies one coat alkali resistant primer and one undercoat to plastered surfaces. Final coats are elsewhere allowed for				
	PRICES				
	Prices are to include for carting away from site all materials not specifically mentioned as being stored on site for re-use or handed over to the Director and all rubbish, debris, etc arising from the alterations, etc and for making good all work damaged or disturbed to the approval of the Director				
	Dimensions				
	All dimensions and sizes referred to in this bill are approximate				
	REMOVAL OF EXISTING WORK				
1	Allow for watering the works by spraying to prevent any nuisance from dust, etc and supply, erect and remove at completion all temporary dust screens, etc required		ltem		
2	Allow for protecting all existing work liable to suffer damage (ie. walls, finishes, floors, windows, etc) from damage during the building operations, alterations, etc and make good all work damaged with new material to match existing to the approval of the Director		ltem		
			item		
3	Allow for the assistance for moving the necessary furniture and materials to provide access to the work. Any furniture remaining in the rooms shall be properly protected and the contractor shall be responsible for any damages caused to such items		Item		
	REMOVAL OF EXISTING WORK				
	Breaking up and removing mass concrete				
4		0			
4	Steps	m3	1		
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	<u>ALTERATIONS</u>				

5	150mm Thick surface beds	m2	15		
	Breaking up and removing mass concrete				
6	230mm Brick walls	m2	2		
7	Brick on edge coping to walls and prepare wall to receive new coping (new coping elsewhere measured)	m	65		
	Taking out and removing doors, windows, etc, including thresholds, sills, etc and building up openings in brick walls, including making good cement plaster on both sides (making good paintwork elsewhere)				
8	Timber single door and frame not exceeding 2.5m² overall from 230mm brick wall	No	2		
9	Timber double door and frame exceeding 2.5m² and not exceeding 5m² overall from 230mm brick wall	No	4		
10	Glazed timber window not exceeding 2.5m² overall from 230mm brick wall	No	1		
11	Glazed timber window exceeding 2.5m² and not exceeding 5m² overall from 230mm brick wall	No	3		
12	Glazed timber louvre not exceeding 2.5m² overall from 230mm brick wall	No	2		
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
13	Tongued and grooved timber suspended floors, including skirtings, timber joists, bearers, etc	m2	209		
14	Gypsum plasterboard ceilings, including cornices, timber brandering, etc	m2	242		
15	Sloping gypsum plasterboard ceilings, including cornices, timber brandering, etc	m2	373		
16	Acoustic wall tiles from walls and prepare plaster to received paint (paint elsewhere)	m2	98		
17	Cut out and remove rotten timber sprockets, including cutting back into brickwork to allow for jointing with new (new elsewhere measured).	m	15		
18	Fibre cement or wooden fascias and barge boards.	m	115		
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	BILL NO 1 ALTERATIONS				

	Temporarily take down and set aside for re-use roofs, floors, panelling, ceilings, partitions, etc				
19	Coronation Marseilles roof tiles	m2	763		
20	Hip and ridge to Marseilles roof tiles	m	72		
	Taking out and removing roof, etc				
21	Allow for covering and maintaining existing structure in a perfectly watertight condition during alterations by means of heavy tarpaulins, properly secured and maintained in position to the approval of the Representative / Agent and make good all work damaged or disturbed after completion (total area of alterations to roof coverings 763m²)		ltem		
	Taking out and remove sundry joinery work, fittings, etc				
22	Timber skirtings from wall and prepare to receive new (new elsewhere)	m	192		
23	Timber dado rail from wall and prepare to receive new (new elsewhere)	m	154		
	Taking out and removing ironmongery				
24	Mortice lockset from timber door	No	20		
25	Toilet paper holder	No	4		
	Servicing of ironmongery				
26	Service existing mortice lock , oil and ease furniture and lock , replace missing keys , and refix with matching screws incl. resseting striking plate .	No	4		
	Taking out/off and removing sundry metalwork				
27	Semi circular steel wire mesh screen with framing 1.00 at base x 1.80m high overall bolted to brickwork, including making good plaster to receive painting (paint elsewhere)	No	16		
	Hack up/off and remove granolithic, screeds or plaster from concrete or masonry and prepare surfaces for new screeds or plaster				
28	Internal plaster from walls and columns	m2	20		
29	External plaster from walls, columns and beams	m2	15		
	Carried to Collection BILL NO 1 ALTERATIONS			R	

	Hack up/off and remove ceramic tiles, including removing				
	mortar bed or backing from concrete or masonry and preparing				
	surfaces for new screeds or plaster				
30	Tiles to walls	m2	78		
	Taking out and removing piping, including blanking off as necessary and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
31	Piping not exceeding 50mm diameter	m	37		
32	Piping exceeding 50mm and not exceeding 100mm diameter	m	12		
	Taking out and removing piping, gutters, etc, including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
33	Asbestos cement eaves gutter and brackets	m	115		
34	Asbestos cement rainwater pipe and holderbats	m	34		
	Taking out and remove sanitary fittings, including cutting off, disconnecting and blanking off short lengths of piping and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
35	Vitreous china wash hand basin	No	2		
36	Vitreous china water closet pan with cistern	No	2		
37	Vitreous china wall hung urinal with cistern at high level	No	2		
	Taking out and removing glass and mirrors				
38	Glass from timber windows with beads, including cleaning out rebates and preparing for new glass	m2	31		
39	Rake out glazing putty, prepare rebates and re-putty	m	60		
	OPENINGS THROUGH EXISTING WALLS, ETC				
	Break out and form openings through walls for new doors and frames, including prestressed concrete lintels, make good plaster on both sides and into reveals and with 20MPa concrete thresholds with steel trowelled finish (new doors and frames and make good paintwork elsewhere)				
40	Opening for door with timber frame 0.93 x 2.09m high overall through 230mm brick wall	No	1		
	PREPARATORY WORK TO EXISTING SURFACES				
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	Clean existing roof covering using a high pressure water cleaning system and steel brushes removing all loose paint,				
	spawl and deleterious matter				
41	Coronation Marseilles roof tiles	m2	763		
42	Underside of Coronation Marseilles roof tiles	m2	110		
	MAKING GOOD FINISHES, ETC				
	Preparation to existing vertical surfaces				
43	Clean existing walls using a water pressure cleaning system and steel brushes and remove all dirt and loose particles.	m2	350		
44	Clean existing facebrick walls using a water pressure cleaning system and steel brushes and remove all dirt and loose particles.	m2	677		
45	Carefully cut out and remove damaged face bricks from face brick wall, rake out mortar and build in new face bricks to match the existing with colour matched tinted mortar.	m2	15		
46	Extra over brickwork for face brickwork in patches.	m2	15		
47	Chase out plaster cracks to form recess 25mm wide and 20mm deep, and fill with 1:4 cement mortar, including floating up smooth to match existing.	m	35		
	Preparation to existing horizontal surfaces.				
48	Sand down existing timber strips or parquet flooring and prepare and seal with approved timber sealer.	m2	313		
49	25mm Thick on floors in patches	m2	29		
50	Clean existing quarry coping 600mm girth using a water pressure cleaning system and steel brushes removing all loose paint, spawl and deleterious matter	m	46		
	Sundries				
51	Seal with approved silicone sealant at junction of wall and cornice.	m	385		
52	Bed roof sheets in cement mortar on brickwork.	m	115		
53	Cut recess in plastered brick walls for wedging and pinning metal flashing(elsewhere)	m	105		
54	Cut stepped recess in plastered brick walls for wedging and pinning stepped metal apron flashing (elsewhere).	m	73		
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ALTERATIONS			

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BILL NO 2			
EARTHWORKS			
For preambles see "Model Preambles for Trades"			
SUPPLEMENTARY PREAMBLES			
Nature of ground			
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"			
Material of a more difficult character			
Should the contractor consider that any of the excavations are more difficult in character than excavations in "earth" he shall immediately notify the principal agent in writing. Failing such notification the excavations shall be deemed to be in "earth" and shall be measured and valued accordingly			
The contractor may use any method he chooses to excavate any class of material, but his chosen method of excavation shall not determine the classification of the material excavated			
Subterranean water			
No subterranean water is expected			
Working space			
Working space for formwork to sides of bases, ground beams, etc is measured with the assumption that it will be required by the principal agent in certain cases. If it is not required, it will be adjusted as such in the final account			
Working space for formwork to sides of all concrete, except columns, has been measured only where the concrete face is less than 600mm from the face of the measured excavation			
Working space for formwork to sides of columns has been measured for the width of the column face only where both: - the top of the column base is more than 1.5m below the commencing level of the excavations and - the column face is less than 600mm from the face of the measured excavations			
Carried to Collection BILL NO 2		R	
<u>EARTHWORKS</u>			

1	No claim will be considered for any working space for formwork to concrete other than as above described or for working space beyond the sides of trench excavations for the building of brick or block walls				
1	Excavation for working space in rock				
,	Notwithstanding clause 11 on page 7 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
<u> </u>	Disposal of excavated material				
,	All excavations shall be deemed to include disposal of excavated material by setting aside for use as filling or depositing on site within 100m of the perimeter of the building and spreading and leveling				
9	Carting away of excavated material				
,	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
<u> </u>	Filling				
,	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
اِ	DEMOLITIONS, ETC				
<u> </u>	Demolish and remove				
;	Single storey building with pitched roof, approximately 2.58 x 2.82m on plan and 3.00m high at eaves, comprising concrete surface bed ,foundation walls, brick walls and sheet metal roof covering on timber trusses	No	1		
 	Single storey building with pitched roof, 3.08 x 3.89m on plan and 3.00m high at eaves, comprising of a wc and connecting pipe works, concrete surface bed, brick walls and sheet metal roof covering on timber trusses	No	1		
	Single storey building with pitched roof, 2.94 x 6.48m on plan and 3.00m high at eaves, comprising concrete surface bed, brick walls and sheet metal roof covering on timber trusses	No	1		
	Carried to Collection			R	
	BILL NO 2 EARTHWORKS				

SITE CLEARANCE, ETC					
Site clearance					
Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	26			
Stripping average 100mm thick layer of top soil and stockpiling on site	m2	26			
Remove waste and refuse material and stockplie to filling in landfill site	m3	992			
EXCAVATIONS					
Excavations in earth not exceeding 2m deep					
Trenches	m3	34			
EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER (PROVISIONAL)					
$\frac{\text{Extra over trench and hole excavations in earth for excavations}}{\underline{\text{in}}}$					
Soft rock	m3	3			
Hard rock	m3	2			
SUNDRIES					
Extra over all excavations for carting away					
Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	3			
Risk of collapse of excavations					
Sides of trench and hole excavations not exceeding 1.5m deep	m2	98			
Keeping excavations free of water					
Keeping excavations free of all water other than subterranean water		Item			
Dewatering					
Allow for a dewatering system for removal of water and water from other subterranean sources in the basement		Item			
BILL NO 2 EARTHWORKS			R		
	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc Stripping average 100mm thick layer of top soil and stockpiling on site Remove waste and refuse material and stockplie to filling in landfill site EXCAVATIONS Excavations in earth not exceeding 2m deep Trenches EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER (PROVISIONAL) Extra over trench and hole excavations in earth for excavations in Soft rock Hard rock SUNDRIES Extra over all excavations for carting away Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor Risk of collapse of excavations Sides of trench and hole excavations not exceeding 1.5m deep Keeping excavations free of water Keeping excavations free of all water other than subterranean water Dewatering Allow for a dewatering system for removal of water and water from other subterranean sources in the basement	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc Stripping average 100mm thick layer of top soil and stockpiling on site Remove waste and refuse material and stockplie to filling in landfill site EXCAVATIONS Excavations in earth not exceeding 2m deep Trenches EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER (PROVISIONAL) Extra over trench and hole excavations in earth for excavations in Soft rock Hard rock SUNDRIES Extra over all excavations for carting away Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor Risk of collapse of excavations Sides of trench and hole excavations not exceeding 1.5m deep M2 Keeping excavations free of water Keeping excavations free of all water other than subterranean water Dewatering Allow for a dewatering system for removal of water and water from other subterranean sources in the basement	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc m2 Stripping average 100mm thick layer of top soil and stockpiling on site m2 Remove waste and refuse material and stockplie to filling in landfill site m3 992 EXCAVATIONS Excavations in earth not exceeding 2m deep Trenches m3 34 EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER (PROVISIONAL) Extra over trench and hole excavations in earth for excavations in Soft rock m3 3 Hard rock m3 Sundries Extra over all excavations for carting away Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor m3 Risk of collapse of excavations Sides of trench and hole excavations not exceeding 1.5m deep m2 98 Keeping excavations free of water Keeping excavations free of all water other than subterranean water Dewatering Allow for a dewatering system for removal of water and water from other subterranean sources in the basement ltem	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc

Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted in not exceeding 200mm layers to 95% modified AASHTO density 14 Under floors, steps, pavings, etc m3 39 15 Backfilling supplied by the contractor, compacted in not exceeding 200mm layers to 95% modified AASHTO density 16 Under floors, steps, pavings, etc m3 33 17 Compaction of surfaces 18 Compaction of ground surface under floors, etc, including scarfying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density m2 132 Prescribed density tests on filling 18 Modified AASHTO density test No 3 GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kilkuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil Maintenance 21 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC		FILLING, ETC			
Backfilling to trenches, holes, etc Earth filling supplied by the contractor, compacted in not exceeding 200mm layers to 95% modified AASHTO density 16 Under floors, steps, pavings, etc Compaction of surfaces 17 Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density Prescribed density tests on filling 18 Modified AASHTO density test GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil Maintenance 21 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2. 22 Under paving etc Carried to Collection BILL NO 2		stock piles on site, compacted in not exceeding 200mm layers			
Earth filling supplied by the contractor, compacted in not exceeding 200mm layers to 95% modified AASHTO density 16 Under floors, steps, pavings, etc m3 33 Compaction of surfaces 17 Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density m2 132 Prescribed density tests on filling 18 Modified AASHTO density test No 3 GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary letem WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 20 Under paving etc Regularity and a rate of 100grams/m2 Earried to Collection Regularity and Regularity Regulari	14	Under floors, steps, pavings, etc	m3	39	
exceeding 200mm layers to 95% modified AASHTO density Under floors, steps, pavings, etc m3 33 Compaction of surfaces 17 Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density m2 132 Prescribed density tests on filling 18 Modified AASHTO density test No 3 GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary ltem WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 20 Under paving etc m2 684	15	Backfilling to trenches, holes, etc	m3	15	
Compaction of surfaces Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density m2 132 Prescribed density tests on filling Modified AASHTO density test No 3 GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance 11 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 Under paving etc Rarried to Collection BILL NO 2					
17 Compaction of ground surface under floors, etc, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density m2 132 Prescribed density tests on filling 18 Modified AASHTO density test No 3 GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance 21 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 22 Under paving etc Rarried to Collection BILL NO 2	16	Under floors, steps, pavings, etc	m3	33	
scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% modified AASHTO density		Compaction of surfaces			
Modified AASHTO density test GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing sarden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance 21 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 22 Under paving etc m2 684 BILL NO 2	17	scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and	m2	132	
GRASSING, ETC Grassing of rolls approximately 50mm thick 19 "Kikuyu" grass over site m2 119 Fertilizing 20 Fertilizing garden soil with 2:3:2 mixture spread at a rate of 1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance 21 Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary ltem WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 22 Under paving etc m2 684 BILL NO 2		Prescribed density tests on filling			
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1kg/10m2, including working evenly into top 150mm depth of soil m2 119 Maintenance Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary ltem WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 Under paving etc m2 684 Carried to Collection R		Fertilizing			
Maintenance of grassed areas for a period of 6 months (total area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 Under paving etc Carried to Collection R BILL NO 2	20	1kg/10m2, including working evenly into top 150mm depth of	m2	119	
area approximately 3000m2), including regularly weeding and irrigating as necessary WEED KILLERS, INSECTICIDES, ETC "Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 Under paving etc Carried to Collection R BILL NO 2		Maintenance			
"Hyvar X" weedkiller mixed with water and applied at a rate of 100grams/m2 Under paving etc m2 684 Carried to Collection R BILL NO 2	21	area approximately 3000m2), including regularly weeding and		Item	
22 Under paving etc m2 684 Carried to Collection R BILL NO 2		WEED KILLERS, INSECTICIDES, ETC			
Carried to Collection R BILL NO 2					
BILL NO 2	22	Under paving etc	m2	684	
BILL NO 2					
BILL NO 2		Carried to Collection			R
		BILL NO 2			

	<u>Insecticides</u>				
23	Under floors, etc, including forming and poisoning V-grooves along foundation walls, etc, filling in and ramming	m2	132		
	EILL NO 2			R	
	<u>EARTHWORKS</u>				

BILL NO 2			
<u>EARTHWORKS</u>			
COLLECTION			
	Page <u>No</u>		<u>Amount</u>
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BILL NO 2 EARTHWORKS			

1		Quantity	Rate	Amoun
1	BILL NO 3			
1	CONCRETE, FORMWORK AND REINFORCEMENT			
	For preambles see "Model Preambles for Trades"			
1	SUPPLEMENTARY PREAMBLES			
	Breeze concrete			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1). The ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SANS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)			
	<u>Formwork</u>			
1	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Formwork to soffits of solid slabs shall be deemed to be for slabs not exceeding 250mm thick unless otherwise described			
	Rates for all formwork shall be deemed to include propping			
			_	
	Carried to Collection BILL NO 3 CONCRETE, FORMWORK AND REINFORCEMENT		R	

	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks" CONCRETE CAST AGAINST EXCAVATED SURFACES				
	20MPa/19mm concrete				
1	Surface beds cast in panels on waterproofing	m3	15		
2	Ramps	m3	1		
3	Steps	m3	1		
	TEST CUBES				
4	Making and testing 150 x 150 x 150mm concrete strength test cubes	No	1		
	CONCRETE SUNDRIES				
	Wood float surface treatment to finished face of concrete				
5	Surface beds, slabs, etc	m2	44		
6	Pavings to falls	m2	100		
	SMOOTH FORMWORK				
	Smooth formwork to sides				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	126		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work				
8	Various diameter bars	t	0.40		
	High tensile steel reinforcement to structural concrete work				
9	Various diameter bars	t	0.60		
	Fabric reinforcement				
10	Type 193 in concrete surface beds, slabs, etc	m2	144		
	Carried to Collection BILL NO 3			R	
	CONCRETE, FORMWORK AND REINFORCEMENT				

BILL NO 3			
CONCRETE, FORMWORK AND REINFORCEMENT			
COLLECTION			
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BILL NO 3 CONCRETE, FORMWORK AND REINFORCEMENT			

<u>Item</u> <u>No</u>			Quantity	<u>Rate</u>	<u>Amount</u>	
	BILL NO 4					
	PRECAST CONCRETE					
	For preambles see "Model Preambles for Trades"					
	COUNTERS					
	Precast concrete finished smooth on all exposed surfaces from the mould including bedding, jointing and pointing					
1	Counter 1.90 x 0,45 m wide x 175 mm thick overall including two layers Mesh Ref: 617 reinforcing mesh	No	2			
	Carried Forward to Summary of Section No.			R		
	BILL NO 4 PRECAST CONCRETE					_

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	SAMPLES				
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site				
	PAVINGS				
	Pavings on concrete surfaces				
	Concrete surfaces shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. Surfaces shall then be wetted and kept damp for at least six hours before slushing with 1:2 cement and sand mixture and while still wet, pavings, etc. shall be laid on class I mortar beds not exceeding 30mm thick and jointed and pointed with recessed joints				
	<u>Joints</u>				
	Pavings, etc, shall, except for crazy paving, be laid with continuous joints in both directions				
	Cutting				
	Descriptions of all pavings shall be deemed to include for all straight cutting and circular cutting around pipes, etc not exceeding 150mm diameter				
	BRICKWORK				
	FOUNDATIONS				
	Brickwork of extra hard burnt clay bricks in class I mortar				
1	110mm Walls	m2	6		
2	230mm Walls	m2	28		
	SUPERSTRUCTURE				
	Brickwork of common clay bricks				
3	110mm Walls	m2	47		
4	230mm Walls	m2	57		
	EILL NO 5 MASONRY			R	

	BRICKWORK SUNDRIES				
	Bagging of 1:3 cement and sand mixture				
5	On walls	m2	57		
	Brickwork reinforcement				
6	75mm Wide reinforcement built in horizontally	m	114		
7	150mm Wide reinforcement built in horizontally	m	204		
	Prestressed concrete fabricated lintels				
8	110 x 70mm Lintels in lengths not exceeding 3m	m	10		
	Galvanised wire ties				
9	4mm Diameter roof tie 2m girth bent double with one end built into brickwork and other end fixed to timber	No	361		
	Galvanised hoop iron cramps, ties, etc				
10	$30 \times 1.6 \text{mm}$ Cramp 500mm long with one end fixed to wood and other end built into masonry	No	12		
	Air bricks, etc				
11	229 x 152mm "Terra - Cotta vermin proof air brick	No	4		
	FACE BRICKWORK				
	"Corobrik Firelight Satin" face bricks pointed with recessed horizontal and vertical joints				
12	Extra over brickwork for face brickwork	m2	57		
13	Extra over brickwork for brick-on-edge header course lintels one course high				
	one course mgm	m	8		
14	Extra over brickwork for roller course sills set at 30 degrees sloping and slightly projecting	m m	8		
14	Extra over brickwork for roller course sills set at 30 degrees				
	Extra over brickwork for roller course sills set at 30 degrees sloping and slightly projecting Brick-on-edge header course copings, sills, etc of "Corobrik Firelight Satin" face bricks pointed with recessed joints on all				
14 15 16	Extra over brickwork for roller course sills set at 30 degrees sloping and slightly projecting Brick-on-edge header course copings, sills, etc of "Corobrik Firelight Satin"face bricks pointed with recessed joints on all exposed faces	m	4		
15	Extra over brickwork for roller course sills set at 30 degrees sloping and slightly projecting Brick-on-edge header course copings, sills, etc of "Corobrik Firelight Satin"face bricks pointed with recessed joints on all exposed faces 230mm Copings on top of 230mm walls	m m	67		
15	Extra over brickwork for roller course sills set at 30 degrees sloping and slightly projecting Brick-on-edge header course copings, sills, etc of "Corobrik Firelight Satin"face bricks pointed with recessed joints on all exposed faces 230mm Copings on top of 230mm walls	m m m	67	R	

	WINDOW SILLS				
	"Nutec" natural grey sills in single lengths bedded in class I mortar, including metal fixing lugs, etc				
17	150 x 15mm Wide sills set flat and slightly projecting	m	4		
	Carried to Collect BILL NO 5 MASONRY	<u>ion</u>		R	
	MACCIVITI				

BILL NO 5			
MASONRY			
COLLECTION			
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MASONRY			

<u>Item</u> <u>No</u>			Quantity	<u>Rate</u>	<u>Amount</u>
	BILL NO 6				
	WATERPROOFING				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Waterproofing				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets, etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	DAMPPROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Gundle Brikgrip Blue" embossed damp proof course				
1	In walls	m2	11		
	One layer of 250 micron "Gundle USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"				
2	Under surface beds	m2	133		
3	Vertically between walls	m2	1		
	Two coats "Brixeal" bitumen emulsion waterproof coating to				
4	Bagged walls	m2	57		
	Carried Forward to Summary of Section No.			R	
	BILL NO 6 WATERPROOFING				

<u>Item</u> No			Quantity	<u>Rate</u>	<u>Amount</u>
	BILL NO 7				
	ROOF COVERINGS ETC				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	Straight cutting				
	Descriptions of all roof coverings shall be deemed to include for all straight cutting				
	TILES				
	Previoulsy set aside tiles laid in straight bond with minimum 100mm head laps and each tile nailed with non-corrosive nails to and including 38 x 38mm sawn softwood battens at maximum 320mm centres, on and including approved undertile membrane with 150mm sealed laps				
1	Roof coverings with pitches not exceeding 25 degrees	m2	763		
	332 x 420mm "Double Roman" through colour terracotta concrete tiles laid in straight bond with minimum 100mm head laps and each tile nailed with non-corrosive nails to and including 38 x 38mm sawn softwood battens at maximum 320mm centres, on and including an underlay of 400 micron 2-ply spunbound "Monier" undertile membrane with 150mm sealed laps				
2	Roof coverings with pitches not exceeding 25 degrees	m2	47		
3	Ridge tiles to match roofing tiles bedded and pointed in 1:3 cement mortar tinted to match tile colour	m	41		
4	Hip tiles to match roofing tiles bedded and pointed in 1:3 cement mortar tinted to match tile colour	m	50		
	ROOF AND WALL INSULATION				
	"Sisalation 420" heavy industrial grade aluminium foil based insulation				
5	Insulation laid taut over purlins (at approximately 1.80m centres) and fixed concurrent with roof covering, including taped laps and nylon straining wires	m2	47		
	Carried to Collection BILL NO 7 ROOF COVERINGS, ETC			R	
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	SHEET METAL FLASHINGS, LININGS, COPINGS, ETC				
	0.6mm Galvanised sheet iron				
6	Linings to valleys with riveted and soldered joints	m2	26		
	0.6mm Galvanised sheet iron with "Chromadek" finish on one side				
7	Back flashings	m2	1		
8	Stepped cover flashings to roofs with pitches to 30 degrees	m2	63		
9	Cover flashings 150mm girth	m	107		
	Carried to Collection BILL NO 7	1		R	
	ROOF COVERINGS, ETC				

BILL NO 7			
ROOF COVERINGS, ETC			
COLLECTION			
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ROOF COVERINGS, ETC			

1		Quantity	<u>Rate</u>	Amoun
В	BILL NO 8			
<u>c</u>	CARPENTRY AND JOINERY			
F	For preambles see "Model Preambles for Trades"			
<u>s</u>	SUPPLEMENTARY PREAMBLES			
<u>P</u>	Plate nailed timber roof truss construction			
Т	The following is applicable in respect of roof trusses:			
til R re o S d	Trusses are at maximum 760m centres. Roof covering is roof alles on 38 x 38mm battens. Ceilings are 6.4mm gypsum Rhinoboard sheeting on 38 x 38mm brandering. The references given in the descriptions are to the respective types of trusses detailed on the principal agent's drawing numbered SP 201 accompanying this document. The dimensions in the rescriptions of the trusses are nominal and actual reasurements shall be obtained from the principal agent and/or the site before design or fabrication commences			
<u>J</u>	oinery			
	Descriptions of frames shall be deemed to include frames, ransomes, mullions, rails, etc			
	Descriptions of hardwood joinery shall be deemed to include selleting of bolt holes			
<u>F</u>	<u>Fixing</u>			
- 1	tems described as "nailed" shall be deemed to be fixed with tardened steel nails or shot pins to masonry or concrete			
D	Decorative laminate finish			
	aminate finish shall be glued under pressure. Edge strips hall be butt jointed at junctions with adjacent similar finish			
R	ROOFS, ETC			
<u>P</u>	Plate nailed timber roof truss construction			
	russes in double hip, 7.60 x 6.50 x 1.30m high overall, ncluding jack rafters, permanent bracing, etc	No 1		
	Carried to Collection BILL NO 8		R	
	CARPENTRY AND JOINERY			

	Sawn softwood			
2	25 x 304mm Valley boarding	m	64	
3	38 x 114mm Sprockets	m	15	
4	38 x 114mm Wall plates	m	149	
	EAVES, VERGES, ETC			
	"Nutec" medium density plain sheets			
5	12 x 225mm Fascias and barge boards, including H-profile plastic jointing strips	m	148	
	FLOORS, ETC			
	Sawn softwood			
6	Provide the sum of R700/m2 for the complete installation as per manufactorure's specification of timber floor all as per clause 7.1 of the ASAQS Preliminaries	m2	209	
	SKIRTINGS			
	Wrought meranti			
7	19 x 69mm Skirtings, including 19mm quadrant beads, nailed	m	59	
8	19 x 100mm Profiled skirtings including 19mm quadrant	m	192	
	DOORS, ETC			
	Take delivery, store, etc all as per clause 7.1 of the ASAQS Preliminaries and hang to timber or steel frames			
9	Flush single door not exceeding 2.5m2	No	2	
10	Flush double door exceeding 2.5m2 and not exceeding 5m2	No	4	
	Solid wrought meranti doors hung to steel frames etc			
11	44mm x 0.81 x 2.03m high "Saligna Blaco" framed, ledged and braced batten door of 40 x 110mm styles and top rail, 20 x 150 mm middle ledge and 20 x 225mm bottom ledge and 20 x 110mm braces (D01)	No	1	
	Solid core hardwood panel doors with commercial veneer on both sides hung to steel frames			
12	40mm Door 0.81 x 2.03m high (D02)	No	5	
	Carried to Collection BILL NO 8 CARPENTRY AND JOINERY			F

	Solid laminated external quality flush doors with commercial veneer on both sides hung to steel frames				
13	40mm Door 0.81 x 2.03m high (D1)	No	2		
	WINDOWS				
	All framed sliding sash and casement windows, shall only be of construction acceptable to the Representative / Agent, i.e. mortice and tennon where the tennon is exposed on the outside edges of styles and where the tennon is wedged to form a dovetailed shape.				
	A sample window shall be submitted for approval prior to placing the complete order				
	Wrot meranti windows				
14	Provide a PC Sum of R3 000 for the supply only of timber frame installed in existing opening (glazing elsewhere measured)	No	5		
15	Provide a PC Sum of R2 000 for the supply only of timber louvre installed in existing opening	No	2		
	FRAMED FRAMES, ETC				
	Wrought meranti				
16	69 x 107mm Rebated frames, bolted	m	39		
	Wrought meranti				
17	19 x 69mm Twice grooved and angle rounded dado rails, plugged	m	154		
	Carried to Collection BILL NO 8			R	
	CARPENTRY AND JOINERY				

BILL NO 8			
CARPENTRY AND JOINERY			
COLLECTION			
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CARPENTRY AND JOINERY			

<u>Item</u> <u>No</u>			Quantity	<u>Rate</u>	<u>Amount</u>
	BILL NO 9				
	CEILINGS, PARTITIONS AND ACCESS FLOORING				
	For preambles see "Model Preambles for Trades"				
	NAILED UP CEILINGS				
	6.4mm "RhinoCeil" gypsum plasterboard with 40 x 10mm meranti timber cover strips to joints				
1	Horizontal ceilings, including 38 x 38mm sawn softwood brandering at 400mm centres	n2	270		
2	Sloping ceilings, including 38 x 38mm sawn softwood brandering at 400mm centres	n2	373		
	"Rhino" gypsum plasterboard cornices				
3	75mm Coved cornices, nailed	m	52		
	Carried Forward to Summary of Section No.			R	
	BILL NO 9 CEILINGS, PARTITIONS AND ACCESS FLOORING				

<u>Item</u> <u>No</u>			Quantity	Rate	<u>Amount</u>
	BILL NO 10				
	FLOOR COVERINGS, WALL LININGS, ETC				
	For preambles see "Model Preambles for Trades"				
	FLOOR COVERINGS				
	2.5mm "Superflex" fully flexible vinyl sheeting laid on self leveling screed				
1	Floors	m2	26		
	POLISH, SEALERS, ETC				
	Three coats wax polish on				
2	Vinyl floors	m2	26		
	Carried Forward to Summary of Section No.			R	
	BILL NO 10 FLOOR COVERINGS, WALL LININGS, ETC				

<u>Item</u> <u>No</u>			Quantity	<u>Rate</u>	<u>Amount</u>	
	BILL NO 11					
	IRONMONGERY					
	For preambles see "Model Preambles for Trades"					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery					
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded					
	IRONMONGERY					
	Take delivery, store, etc all as per clause 7.1 of the ASAQS Preliminaries and fix					
	HINGES, BOLTS, ETC					
	Approved					
1		No	24			
2	152mm Brass barrel bolt	No	4			
	LOCKS					
	"DORMA" or other approved					
3	D035S Bathroom/WC sash lock	No	5			
	"Union"					
4	51mm 3122-51 Padlock	No	1			
	Carried to Collection BILL NO 11 IRONMONGERY			R		_

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5	CZ682-24/2295-76SC two lever mortice lockset	No	8			
6	CZ682-24/2295SC two lever mortice lockset with 2293SC rebate conversion set	No	2			
7	CZ682-24/2277-78SC three lever mortice lockset	No	9			
8	CZ682-24/2277-78SC three lever mortice lockset with 2993SC rebate conversion set	No	6			
	HANDLES					
	"DORMA" or other approved					
9	TH125 Stainless steel lever handles on rose with bathroom/WC escutcheon	No	10			
10	DPH301C 150 x 19mm stainless steel "D" shaped straight back to back pull handles	Pairs	1			
	SIGNAGE					
	"DCLSA"					
11	160 x 160mm EO15160E/M/F anodised aluminium plate with male or female engraving	No	2			
12	160 x 160mm EO15160E/P anodised aluminium plate with paraplegic engraving	No	1			
	CURTAIN TRACKS					
	"Yokota"					
13	"Racer" double curtain tracks for face fixing with 103.5mm projection, including 14 rollers per metre, brackets, stopped ends, etc, plugged	m	61			
14	Extra over for stopped end	No	72			
	BATHROOM FITTINGS					
	"Halcast"					
15	165 CH towel ring, plugged	No	7			
	"Domline"					
16	130 x 50mm "Universal 107F" CH holder with clear acrylic soap dish, plugged	No	7			
	Carried to Collection			R		
	BILL NO 11 IRONMONGERY					
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	"Chairman Industries"				
17	32mm DL2 stainless steel side grab rail, plugged	No	2		
18	32mm SR2 stainless steel rear grab rail around cistern, plugged	No	2		
	SUNDRIES				
	"DORMA" or other approved				
19	DHC-SS-031-B Stainless steel hat and coat hook with rubber buffer	No	7		
	Approved				
20	38mm Diameter rubber door stop	No	27		
	Carried to Collection	<u>l</u>		R	
	BILL NO 11 IRONMONGERY				

BILL NO 11			
IRONMONGERY			
COLLECTION			
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IRONMONGERY			

<u>Item</u> No			Quantity	<u>Rate</u>	<u>Amount</u>
	BILL NO 12				
	METALWORK				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in masonry or concrete				
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
	GALVANISED STEEL BALUSTRADING				
	Galvanized mild steel painted with one coat red oxide factory primer				
1	50 x 50 x 2mm Square mild steel tubing as top and bottom rails	m	8		
2	50 x 50 x 2mm Square mild steel tubing as raking top and bottom rails	m	32		
3	20 x 20 x 5mm balusters welded to middle and bottom rails	m	180		
4	50 x 50 x 2mm Square mild steel tubing as vertical end and centre posts (1100mm long each)	No	18		
5	80 x 80 x 10mm Fixing plate four times holed for bolts and welded on	No	18		
6	12mm expansion bolt	No	72		
7	Extra over 50 x 50mm tubing for ramp or knee	No	4		
8	Extra over 50 x 50mm tubing for mitred L-intersection	No	2		
	BILL NO 12 METALWORK			R	

	GALVANISED STEEL SCREENS AND GATES				
	Welded and bolted screens				
9	Semi circular screen 1.00m at base x 1.00m high with 12mm diameter frame and covered with mesh covering	No	16		
	Framed and welded galvanised mild steel security gates				
10	Grille double gate each leaf constructed of 40 x 60 x 2mm hollow section frame and two 40 x 6mm flat section horizontal intermediate rails with five 19mm diameter vertical bars welded to framing approximately 110mm centres including holes through intermediate rails. Size 1.800 x 2.097m high	No	1		
11	Frame for double gate constructed of 45 x 45 x 3mm hollow section frame, each jamb four times bolted to brickwork with and including 8mm diameter expansion bolts x 70mm long including drilling holes through flanges of frame and welding head of bolt to frame. Size 1.80 x 2.10m high overall	No	1		
12	25mm diameter x 80mm long overall pin hinge with 15mm diameter x 30mm long pin, welded to grille gate and frame or pressed steel door frame	No	4		
13	Purpose made barrel bolt welded to gate including 12mm diameter x 30mm pin welded to frame (all as detail DS8 at back of these Bills of Quantities)	No	2		
14	Purpose made barrel bolt welded to gate including 12mm diameter x 197mm long pin welded to frame (all as detail DT33 at back of these Bills of Quantities) including keep in hollow section frame	No	1		
15	60 x 60 x 6mm thick barrel bolt locating plate with 13mm diameter hole in centre and bolted to concrete with and including two 8mm diameter expansion bolts, including drilling hole 15mm deep in concrete for barrel bolt (elsewhere)	No	1		
16	Set of two 55 x 40 x 8mm flat section locking plates, each once holed for padlock (elsehwere) and welded along one edge to hollow section framing or pressed steel frame	No	1		
	BILL NO 12 METALWORK			R	

	GALVANISED PRESSED STEEL DOOR FRAMES				
	1.2mm Double rebated frames suitable for 110mm walls				
17	Frame for door 0.81 x 2.03m high (D2)	No	5		
	GALVANISED STEEL WINDOWS, DOORS, ETC				
	"Durowin" residential open out windows with burglar bars to opening sashes				
18	Type NE1 window 0.53 x 0.65m high (WS)	No	5		
19	Type NC1 window 0.53 x 0.95m high (WT)	No	2		
	Carried to Collection	on		R	
	BILL NO 12 METALWORK			11	
	MEIREWVIIIX				

BILL NO 12			
<u>METALWORK</u>			
COLLECTION			
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BILL NO 12 METALWORK			

<u>Item</u> No			Quantity	<u>Rate</u>	<u>Amount</u>
	BILL NO 13				
	PLASTERING				
	For preambles see "Model Preambles for Trades"				
	PLASTER				
	<u>Finish</u>				
	Internal plaster shall be finished with a steel trowel and external plaster with a wooden float				
	SCREEDS				
	Screeds steel trowelled on concrete				
1	30mm Thick on floors and landings	m2	26		
	GRANOLITHIC				
	Untinted granolithic on concrete (degree of accuracy grade I)				
2	30mm Thick on floors and landings to falls	m2	100		
	INTERNAL PLASTER				
	Cement plaster class II on masonry				
3	Walls	m2	151		
4	Narrow widths	m2	11		
	"MENTEX 82" METAL LATHINGS				
5	15 x 40mm Mesh 3.34kg/m2 expanded metal lathing strips 600mm wide bent to shape and fixed along both edges to masonry or concrete	m	707		
	Carried Forward to Summary of Section No. BILL NO 13			R	
	PLASTERING				

<u>Item</u> <u>No</u>			Quantity	<u>Rate</u>	<u>Amount</u>	
	BILL NO 14					
	<u>TILING</u>					
	For preambles see "Model Preambles for Trades"					
	SUPPLEMENTARY PREAMBLES					
	<u>Descriptions</u>					
	Descriptions of tiling shall be deemed to include for symmetrical arrangement of tiling with cutting along both sides of panels and for all straight cutting					
	Descriptions of tiling shall be deemed to include for cutting and fitting around all sanitary ware and pipes, etc not exceeding 150mm diameter					
	Descriptions of tiling shall be deemed to include for soft grouted joints at positions of joints in the substructure or at centres in both directions as recommended by the tile manufacturers or which represents good practice					
	WALL TILING					
	200 x 200 x 5mm White glazed ceramic tiles fixed with					
	adhesive to plaster (plaster elsewhere)					
1	On walls	m2	78			
	TOILET ROLL HOLDERS, ETC					
	"Splashworks" white ceramic					
2	"Fast-Fit B044" toilet roll holder	No	6			
	Carried Forward to Summary of Section No.			R		
	BILL NO 14 TILING					
	115.113					

	Quantity	Rate	Amou
BILL NO 15			
PLUMBING AND DRAINAGE			
For preambles see "Model Preambles for Trades"			
SUPPLEMENTARY PREAMBLES			
Wire gratings			
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings			
Stormwater channels			
Descriptions of channels shall be deemed to include all necessary excavation and disposal of surplus material			
Rock excavations			
No claim for rock excavation will be entertained unless the contractor has timeously notified the principal agent thereof prior to backfilling			
"Soft rock" and "hard rock" shall be as defined in "Earthworks"			
Laying, backfilling, bedding, etc of pipes			
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions			
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:			
SANS 1200 L : Medium-pressure pipelines, SANS 1200 LD : Sewers and SANS 1200 LE : Stormwater drainage			
Pipe trenches, etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200 DB : Earthworks (Pipe trenches)			
Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding			
Carried to Collection BILL NO 15		R	
PLUMBING AND DRAINAGE			

Concrete pipes

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

Vitrified clay pipes etc

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including concrete laid in a semi-dry state immediately before pipes are laid

uPVC pipes and fittings

Drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

Sanitary plumbing pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings

Gratings, covers, etc

Gratings, covers, etc shall be as manufactured by "Saint-Gobain", unless otherwise described

French drains

Descriptions of french drains shall be deemed to include for battered sides and sloping bottoms with inlet chamber size 300 x 300mm internally under inlet pipe, from bottom of drain to top of pipe, formed of loosely packed, rough, hard stone walls and covered with precast concrete slab size $600 \times 600 \times 100$ mm thick and the rest of the drain filled in to the same height with similar stone graded from 300mm diameter at bottom to 50mm diameter at top, covered with galvanised corrugated iron sheets treated on both sides with bituminous paint and 300mm earthfilling over

Septic tanks

Descriptions of septic tanks shall be deemed to include concrete base slabs, jointing to drains, etc

Stainless steel basins, sinks, wash troughs, urinals, etc

Stainless steel for economy basins, domestic sinks, worktops and wash troughs shall be type 430 (17/0)

Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be type 304 (18/8)

Carried to Collection

BILL NO 15
PLUMBING AND DRAINAGE

Stainless steel for laboratory sinks, photographic equipment, etc shall be type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable Flush pans Flush pans shall have straight or side outlets and "P" or "S" traps as necessary uPVC pressure pipes and fittings Pipes for water supply shall be of the class described Pipes of 42mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints HDPE (high density polyethylene) pipes and fittings Pipes shall be type 4 and of the class specified with "Plasson" or "Alprene" compression fittings "Polycop" polypropylene pipes Polypropylene pipes of 54mm diameter and smaller shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes, as described Pipes shall be firmly fixed to walls, etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed All pipe diameters are nominal external Copper pipes Pipes shall be hard drawn and half-hard pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016

BILL NO 15 PLUMBING AND DRAINAGE **Carried to Collection**

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for :

- casting in, building in, chasing in and fixing to walls, etc, including chasing; or
- placing in ground or filling under solid floors, including necessary excavation, backfilling and ramming; or
- suspending not exceeding 1m below suspension level

Disinfection of potable water pipelines

Descriptions of all potable water pipelines shall be deemed to include for disinfection in accordance with 5.10 of SANS 1200 L

Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm, only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm, all sizes are given and no claim for extra bushes, reducers, etc will be entertained

Steel sectional water tanks

Tanks shall comply with CKS 114

Geyser installations

Geyser installations shall comply with SANS 10254

"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with relevant overlaps for specific diameters of pipes

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions, including all mastic, tape, "Layflat" sheeting, securing of same, etc

Prices for wrapping of pipes shall include for all work as described to couplings in the length

General

Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete

Carried to Collection

BILL NO 15
PLUMBING AND DRAINAGE

Descriptions of pipes laid in and including trenches, sumps, catchpits, junction boxes, inspection chambers, french drains, septic tanks and the like shall be deemed to include for excavations, bedding of pipes, risk of collapse, keeping free of water, a dewatering system for removal of seepage water and water from other subterranean sources in the excavations designed and executed by the contractor, backfilling, compaction to a minimum of 93% modified AASHTO density and disposal of surplus material

Descriptions of sumps, catchpits, junction boxes, inspection chambers and the like shall be deemed to include reinforcement, step irons and channels where applicable

Descriptions for jointing of new to existing pipes shall be deemed to include searching for the existing pipe, exposing if necessary, cutting into, jointing and necessary fittings

Descriptions of washdown pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors measured separately)

Descriptions of all sanitary fittings shall be deemed to include for silicone sealant pointing between the fittings and finished wall surfaces

Descriptions of copper service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to pipes

Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends

RAINWATER DISPOSAL

"Watertite" aluminium

1	125mm Ogee eaves gutters	m	149
2	Extra over for eaves or plinth offset	No	8
3	Extra over for stopped end	No	12
4	Extra over for angle	No	12
5	Extra over for outlet for 100 x 75mm pipe	No	12
6	Extra over for shoe	No	12
7	100 x 75mm Rainwater pipes	m	44

Carried to Collection

BILL NO 15 PLUMBING AND DRAINAGE

	SOIL DRAINAGE				
	Class 34 uPVC pipes				
8	110mm Pipes vertically or ramped to rodding eyes, etc (no excavations)	m	6		
9	110mm Pipes laid in and including trenches not exceeding 1m deep	m	53		
10	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	16		
	Extra over class 34 uPVC pipes for uPVC fittings				
11	110mm Bend	No	16		
12	110mm Junction	No	12		
13	110mm Access pipe	No	2		
14	110mm Access bend	No	8		
15	110mm Access double junction	No	1		
	uPVC gulleys				
16	110mm Gulley not exceeding 0.75m deep	No	5		
	Sundries				
17	Excavate for and locate and cut into existing 110mm pipe fit new junction for 110mm pipe, fill and ram.		ltem		
18	110mm uPVC "ABC" cleaning eye	No	3		
19	Testing soil drainage system		Item		
	SANITARY FITTINGS				
	"Vaal"				
20	595 x 455mm "Cameo" vanity basin	No	4		
21	"Orchid" top inlet wall hung washdown pan with cradle bracket and legs (flush valve elsewhere)	No	2		
22	Weaver basin wall mounted with concealed bracket (bracket code 8131Z2) with "Giobella" A186 round bottle trap	No	3		
23	"Protea" low level paraplegic suite comprising washdown pan and 9 litre cistern with side-flush lever	No	1		
	Carried to Collection BILL NO 15 PLUMBING AND DRAINAGE			R	

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24	"Hibiscus" close coupled suite comprising washdown pan and cistern with top dual flush system	No	3			
25	"Flatback" wall hung bowl urinal (flush valve elsewhere)	No	3			
	WASTE UNIONS, ETC					
	"Cobra Watertech"					
26	32mm 301CP basin waste union	No	6			
27	32mm 303CP basin waste union with 309-32CP anti-theft plug	No	1			
	TRAPS, ETC					
	"Marley" rubber					
28	32mm Plain "P" or "S" trap	No	7			
	"Cobra Watertech"					
29	75mm VA3.113CP urinal domical grating	No	3			
30	32mm 345/40CP bottle trap	No	3			
	VALVES, TAPS, ETC					
	"Cobra Watertech"					
31	22mm 1003/125 Gate valve	No	1			
32	28mm 1003/125 Gate valve	No	1			
33	15mm 832/350F Angle valve with 350mm flexible hose connector	No	17			
34	22mm 138CP "Star" undertile stoptap	No	3			
35	"Gala" single lever mixer GA-651	No	1			
36	15mm 903CP "Focus" single taphole basin mixer with anti-theft plug, basin waste, mounting kit, angle valves and flexible inlets	No	6			
37	20mm PB1.10 Vacuum breaker	No	1			
38	20mm PA1.1L "Closy" 100 kPa pressure control valve with PB6.302 vacuum breaker	No	4			
39	22mm Geyser installation pack of PA3.332 "Masterflo 1" 400kPa pressure control valve, 131-22 stoptap and two PB6.303 vacuum breakers	No	1			
	Carried to Collection BILL NO 15 PLUMBING AND DRAINAGE			R		

40	20mm FJ6.000CP "Junior Flushmaster" exposed urinal flushvalve and FJT5.4CP tailpipe	No	3		
41	32mm FM1.210CP "Flushmaster" exposed top entry toilet flushvalve	No	6		
	SANITARY PLUMBING				
	uPVC pipes				
42	40mm Pipes	m	13		
43	50mm Pipes	m	30		
44	110mm Pipes	m	12		
	Extra over uPVC pipes for fittings				
45	50mm Stop end	No	2		
46	50 x 32mm BSP adaptor	No	4		
47	50 x 38mm BSP adaptor	No	4		
48	40mm Bend	No	12		
49	50mm Bend	No	20		
50	110mm Bend	No	8		
51	40mm Junction	No	6		
52	50mm Junction	No	8		
53	110mm Junction	No	8		
54	50mm Double junction	No	2		
55	110mm Pan connector	No	4		
56	40mm Access bend	No	1		
57	50mm Access bend	No	10		
58	110mm Access bend	No	4		
59	40mm Access junction	No	5		
60	50mm Access junction	No	3		
61	110mm Access junction	No	2		
62	110 x 50 x 50mm Access reducing double junction	No	1		
	Carried to Collect BILL NO 15 PLUMBING AND DRAINAGE	<u>tion</u>		R	

63	110mm Vent cowl	No	1		
	Sundries				
64	Testing sanitary plumbing pipe system		Item		
	WATER SUPPLIES				
	Class 10 HDPE pipes				
65	32mm Pipes laid in and including trenches	m	45		
66	40mm Pipes laid in and including trenches	m	10		
67	50mm Pipes laid in and including trenches	m	12		
	Extra over class 10 HDPE pipes for "Plasson" fittings				
68	50 x 40mm Reducer	No	2		
69	32mm Bend	No	4		
70	40mm Bend	No	3		
71	50mm Bend	No	2		
72	40mm Tee	No	1		
73	50mm Tee	No	1		
	Class 2 copper pipes				
74	15mm Pipes	m	45		
75	22mm Pipes	m	25		
76	28mm Pipes	m	4		
77	35mm Pipes	m	16		
	Extra over class 2 copper pipes for capillary fittings				
78	15mm Fittings	No	15		
79	22mm Fittings	No	20		
80	28mm Fittings	No	5		
81	35mm End cap	No	4		
82	35mm Reducer	No	2		
83	35mm Elbow	No	8		
	Carried to Collec BILL NO 15 PLUMBING AND DRAINAGE	tion		R	

84	35mm Tee	No	4		
85	35mm Reducing tee	No	4		
	Sundries				
86	150 x 150mm Type 11A cast iron stopcock box, including brick chamber below not exceeding 0.50m deep internally	No	1		
87	Testing water pipe system		Item		
	ELECTRIC WATER HEATERS				
	"Kwikot"				
88	150 Litre "600 Dual" standard floor/wall mounted electric water heater	No	1		
	FIRE APPLIANCES, ETC				
	"Chubb"				
89	4.5kg Dry chemical powder fire extinguisher on and including a painted backing board	No	4		
90	9kg Dry chemical powder fire extinguisher on and including a painted backing board	No	2		
	AS-BUILT DRAWINGS				
91	Allow for an updated set of as-built drawings to be handed to the principal agent at completion of the contract		Item		
	Carried to Collection			R	
	BILL NO 15 PLUMBING AND DRAINAGE				

BILL NO 15			
PLUMBING AND DRAINAGE			
COLLECTION			
	Page No		<u>Amount</u>
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Carried Forward to Summary of Section No. BILL NO 15		R	
PLUMBING AND DRAINAGE			

<u>m</u> 0			Quantity	Rate	Amount
	BILL NO 16				
	GLAZING				
	For preambles see "Model Preambles for Trades"				
	GLAZING TO STEEL WITH PUTTY				
	4mm "ClearVue"				
1	Panes exceeding 0.1m2 and not exceeding 0.5m2	m2	2		
2	Panes exceeding 0.5m2 and not exceeding 2m2	m2	1		
	GLAZING TO WOOD WITH PINNED-ON BEADS (BEADS ELSEWHERE)				
	4mm "ClearVue"				
3	Panes not exceeding 0.1m2	m2	13		
	GLASS TOPS, SHELVES, DOORS, MIRRORS, ETC				
	4mm "Images" silver mirrors with 10mm bevelled and polished edges fixed with double sided adhesive tape				
4	Mirror 0.45 x 0.60m high	No	7		
	Carried Forward to Summary of Section No. BILL NO 16			R	
	GLAZING				

1		Quantity	<u>Rate</u>	<u>Amount</u>
<u> </u>	BILL NO 17			
<u> </u>	PAINTWORK			
	For preambles see "Model Preambles for Trades"			
1	SUPPLEMENTARY PREAMBLES			
1	DESCRIPTIONS			
	Descriptions of paintwork shall be deemed to include for all cutting in			
<u> </u>	PREPARATORY WORK TO EXISTING SURFACES			
	Plaster or concrete surfaces			
1 3	Surfaces shall be thoroughly cleaned down by high pressure water jet and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed. All existing walls to be made good where damaged by removals, furniture, etc, and all screw and nail holes and cracks shall be opened, primed with plaster primer, filled with a suitable filler and finished smooth			
<u> </u>	Metal surfaces			
	Surfaces shall be thoroughly rubbed and cleaned down by means of grit blasting or wire brushing. Blistered or peeling paint, including all traces of corrosion, shall be completely removed down to bare metal			
<u> </u>	Previously painted wood surfaces			
1	Surfaces shall be thoroughly cleaned down by scraping and sanding all loose and flaking paint. All dust and surface contamination are to be removed by wiping down. All exposed nail heads are to be punched in and primed with one coat metal primer. Holes, cracks and crevices shall be primed with wood primer, filled with wood stopping and finished smooth			
	Carried to Collection BILL NO 17 PAINTWORK		R	

	Previously varnished/natural wood surfaces				
	Surfaces shall be thoroughly cleaned down with existing coatings removed by sanding and/or using paint remover. All residual paint remover and surface contamination are to be removed by washing down, allowed to dry and sandpapered to a uniformed surface. All exposed nail heads are to be punched in and primed with one coat metal primer. Holes, cracks and crevices shall be treated with woodcare pretreatment, filled with wood stopping and finished smooth				
	PAINT SPECIFICATIONS				
	All painting shall be done in accordance with "Plascon" specifications unless otherwise specified				
	PAINTWORK, ETC TO NEW SURFACES ON				
	SMOOTH PLASTER OR CONCRETE SURFACES WITH				
	One coat alkali resistant plaster primer and two coats superior matt acrylic paint on				
1	Walls	m2	162		
	PLASTER BOARD SURFACES WITH				
	One coat alkali resistant plaster primer and two coats superior matt acrylic paint on				
2	Ceilings and cornices	m2	732		
	FIBRE-CEMENT SURFACES WITH				
	Two coats pure acrylic paint on				
3	Fascias and barge boards	m2	45		
4	Extra over paintwork in other colours for paintwork in colours which have a value of 7 or less on the Munsell system	m2	45		
	METAL SURFACES WITH				
	Spot priming defects in pre-primed surfaces with metal primer and two coats super universal enamel paint on steel				
5	Windows	m2	4		
6	Windows with burglar bars	m2	2		
7	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m2	44		
	BILL NO 17 PAINTWORK			R	

	WOOD SURFACES WITH				
	Two coats wood primer on				
8	Backs of frames, linings, etc not exceeding 300mm wide	m	109		
	One coat wood primer and two coats super universal enamel paint on				
9	Doors	m2	27		
10	Door frames	m2	3		
11	Skirtings, rails, etc not exceeding 300mm girth	m	346		
	Three coats suede woodcare ultra varnish on				
12	Skirtings, rails, etc not exceeding 300mm girth	m	59		
	One prime coat 'Ivory 402' single component solvent based polyurethane sealer thinned with 'Ivory 402 Thinners' 15% (5m²/1 litre) and two coats 'Ivory 403' single component polyurethane coating applied by means of brush, roller or airless spray gun (8m²/1 litre per coat)				
13	On boarded flooring	m2	209		
	PAINTWORK, ETC TO EXISTING SURFACES ON				
	SMOOTH PLASTER OR CONCRETE SURFACES WITH				
	Two coats superior matt acrylic paint on work in sound condition on				
14	Columns	m2	56		
	Two coats fine texture acrylic paint on work in poor condition on				
15	Walls	m2	1 012		
	BRICK OR QUARRY TILE SURFACES WITH				
	Two coats brick and slasto dressing on				
16	Floors	m2	172		
	Carried to Collection			R	
	BILL NO 17 PAINTWORK				

	WOOD SURFACES WITH				
	Spot priming bare wood surfaces with wood primer and two coats super universal enamel paint on work in poor condition on				
17	Doors	m2	179		
18	Door frames	m2	53		
19	General surfaces at eaves and verges	m2	97		
20	On windows	m2	163		
	One prime coat 'Ivory 402' single component solvent based polyurethane sealer thinned with 'Ivory 402 Thinners' 15% (5m²/1 litre) and two coats 'Ivory 403' single component polyurethane coating applied by means of brush, roller or airless spray gun (8m²/1 litre per coat)				
21	On boarded flooring	m2	522		
	Carried to Collection BILL NO 17 PAINTWORK			R	

BILL NO 17			
PAINTWORK			
COLLECTION			
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PAINTWORK			

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each sel contractor costs incontractor subcontractor	lected subcontractor, shall be deemed to allow for the or's profit if required and to cover all the contractor's curred in providing free of charge to the selected		
	actors, the following.		
	Access to the site and places where the subcontract work is to be carried out, including the reasonable use of any temporary personnel hoists erected by the contractor		
1	Hoisting of the subcontractor's material in batches that can be handled by the contractor's hoist or crane during normal working hours		
	The provision of water and lighting and of single phase electric power to a position within 50m of the place where the subcontractor's work is to be carried out other than water, fuel and power for commissioning of any installation		
	The provision of an area for the subcontractor to establish temporary office accommodation and workshops and for the storage of plant and materials and goods		
	The use of erected scaffolding belonging to the contractor, along with others having the like right. Scaffolding will remain erected on site until all work which requires the use thereof has been completed		
II	The use of ablution facilities and the like, where rovided		
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	 7. The use of the site telecommunication facilities, where provided, subject to payment by the subcontractor for usage thereof 8. Making good in all trades and cleaning down and removal of rubbish on completion 				
	Preliminaries				
	The contractor is referred to the Preliminaries for further amplification of "Prime Cost Amounts"				
	BUDGETARY ALLOWANCES				
	Sundry builders' work				
1	Provide an amount of R100 000.00 (one hundred thousand rand) for sundry builders' work	Item		100 000	00
	SELECTED SUBCONTRACTORS WORK				
	Electrical Installation				
2	Provide an amount of R 200 000.00 (two hundred thousand rand) for electrical installation	Item		200 000	00
3	Allow for profit and general attendance	Item			
	Carried to Collection BILL NO 18 PROVISIONAL AMOUNTS, ETC		R		

BILL NO 18			
PROVISIONAL AMOUNTS, ETC			
COLLECTION			
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BILL NO 18 PROVISIONAL AMOUNTS, ETC			

	SECTION SUMMARY - BUILDING WORKS			
<u>Bill</u> No		<u>Page</u> <u>No</u>		<u>Amount</u>
1	ALTERATIONS	-20-		
2	EARTHWORKS	-26-		
3	CONCRETE, FORMWORK AND REINFORCEMENT	-29-		
4	PRECAST CONCRETE	-30-		
5	MASONRY	-35-		
6	WATERPROOFING	-36-		
7	ROOF COVERINGS, ETC	-39-		
8	CARPENTRY AND JOINERY	-43-		
9	CEILINGS, PARTITIONS AND ACCESS FLOORING	-44-		
10	FLOOR COVERINGS, WALL LININGS, ETC	-45-		
11	IRONMONGERY	-49-		
12	METALWORK	-53-		
13	PLASTERING	-54-		
14	TILING	-55-		
15	PLUMBING AND DRAINAGE	-66-		
16	GLAZING	-67-		
17	PAINTWORK	-72-		
18	PROVISIONAL AMOUNTS, ETC	-75-		
	Carried to Final Summary		R	

<u>Item</u> <u>No</u>	Pay Ref		<u>Unit</u>	Quantity	<u>Rate</u>	<u>Amount</u>
		BILL NO 1				
		ROAD WORKS				
		For preambles see "SANS 1200 Standardised Specification for Civil Engineering Works"				
	SANS 1200	Site Clearance				
1	8.2.1	Clear and grub	m2	1 000		
	8.2.2	Remove and grub large trees and tree stumps of girth				
2	8.2.2	Over 1m and up to and including 2m	No	1		
3	8.2.2	Over 2m and up to and including 3m	No	1		
4	8.2.2	Over 3m, in steps of 1m	No	1		
	SANS 1200	Earthworks (Roads, Subgrade)				
	8.3.3	Treatment of road-bed and road bed preparation and compaction of material to				
5	8.3.3	Minimum of 93% of Mod AASHTO maximum density	m3	105		
	SANS 1200	In-place treatment of road-bed in intermediate or hard rock material by				
6	8.3.3	Ripping	m3	5		
	8.3.4	Cut to fill, borrow to fill compact to 90% of Mod AASHTO maximum density				
7	8.3.4	Cut to fill	m3	50		
	SANS 1200	Sub-base				
8	8.3.1	Construct sub-base course/shoulders/gravel wearing course with material from borrow pits(150mm G5/G6 150mm compacted to 95% Mod AASHTO density)	m3	105		
9	8.3.9	Overhaul (haul exceeding 2km) provisional	m3km	500		
		- , .				
		Carried to Collection BILL NO 1 ROAD WORKS			R	
		-77-				

	SANS 1200	Kerbing & Channeling				
10	8.2.2	Concrete kerbing and channelling (Fig 6 precast kerb and 70mm channel)	m	170		
	SANS 1200	Trimming of excavations for concrete-lined open drains in				
11	8.2.7	Soft materials	m2	6		
12	8.2.7	Intermediate materials	m2	2		
	SANS 1200	Cast in-situ concrete lining to open drains for				
13	8.2.8	1200mm concrete v-drain (25/19 concrete)	m3	6		
	SANS 1200	Formwork to cast in-situ lining of open drains (smooth surface finish)				
14	8.2.9	To sides of drains	m2	10		
15	8.2.9	To ends of slabs	m2	3		
16	8.2.10	Sealed joints in concrete lining of open drains	m	38		
		Carried to Collection			R	
		BILL NO 1 ROAD WORKS				

	BILL NO 1			
	ROAD WORKS			
	COLLECTION			
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<u>-</u>	BILL NO 1 ROAD WORKS			

<u>No</u>	Pay Ref		<u>Unit</u>	Quantity	<u>Rate</u>	<u>Amount</u>
		BILL NO 2				
		EARTHWORKS (SMALL WORKS)				
		For preambles see "SANS 1200 Standardised Specification for Civil Engineering Works"				
<u>.</u>	SANS 1200	Excavation				
1	<u>8.3.1</u>	Remove topsoil to a nominal depth 150mm stockpile and maintain	m2	685		
2	<u>8.3.1</u>	Excavate in all materials and use for embankment or backfill or disposal	m3	500		
	SANS 1200	Extra - over for				
3	<u>8.3.1</u>	Intermediate excavation	m3	10		
4	<u>8.3.1</u>	Extra over item no. 5 page 69 for excavation in hard rock (Prov quantity only)	m3	10		
	SANS 1200	Restricted Excavation				
5	8.3.2	For concrete apron slabs	m3	5		
6	<u>8.3.4</u>	Importing of material from borrow pit for fill below gravel surfacing compacted in position to 93% Mod Aashto density Free haul distance up to 5km (Prov)	m3	10		
7	8.3.6	Topsoiling 75 mm thick from existing stockpile to areas surrounding the hall, platform and road banks	m2	50		
8	<u>8.3.7</u>	Grassing to platform and road banks (runners @ 300mm centres)	m2	50		
	Ca	arried Forward to Summary of Section No.			R	
	_	BILL NO 2 EARTHWORKS (SMALL WORKS)				

<u>Item</u> No	Pay Ref		<u>Unit</u>	<u>Quantity</u>	<u>Rate</u>	<u>Amount</u>
		BILL NO 3				
		CONCRETE (ORDINARY BUILDINGS)				
		For preambles see "SANS 1200 Standardised Specification for Civil Engineering Works"				
	SANS 1200	Formwork vertical smooth				
1	8.2.1	To edges,risers and ends not exceeding 75mm high for slabs and aprons at ground level	m2	3		
2	8.2.5.1	Grade 20/19 concrete 75mm thick apron slab	m3	5		
	SANS 1200	Unformed Surface finishes				
3	<u>8.2.6</u>	Steel floated finishes to concrete apron	m2	66		
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		CONCRETE (ORDINARY BUILDINGS)				
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<u>Item</u> No		Quantity	Rate	<u>Amount</u>
	BILL NO 4			
	FENCING			
	For preambles see "Model Preambles for Trades"			
1	Supply and erect 1.8m high 1.2mm weld mesh fence with 500mm flat wrap razor wire including creosote treated timber posts at 3,75m centres as detailed on the drawings	205		
2	Extra over item for double swing 5m wide driveway gate No	2		
	Carried Forward to Summary of Section No.		R	
	BILL NO 4 FENCING			

<u>Item</u> No			Quantity	<u>Rate</u>	<u>Amount</u>	
_	BILL NO 5					
	DAYWORKS					
	Labour					
1	Unskilled Labour	Hrs	100.00			
2	Semi-skilled labour	Hrs	100.00			
3	Skilled labour	Hrs	50.00			
4	Foreman	Hrs	50.00			
	Machinery					
5	Provisional sum for plant hire R 20 000.00 (twenty thousand rand)		ltem		20 000	00
6	Allow for profit and general attendance		Item			
	Materials					
7	Provisional for materials as requested by Engineer R 20 000 (twenty thousand rand)		Item		20 000	00
8	Allow for profit and general attendance		Item			
	Carried Forward to Summary of Section No.	<u>).</u>		R		
	<u>DAYWORKS</u>					
					II	

	SECTION SUMMARY - EXTERNAL WORKS			
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1	ROAD WORKS	-79-		
2	EARTHWORKS (SMALL WORKS)	-80-		
3	CONCRETE (ORDINARY BUILDINGS)	-81-		
4	FENCING	-82-		
5	DAYWORKS	-83-		
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	SUMMARY				
		<u>Page</u> <u>No</u>		<u>Amount</u>	
1	PRELIMINARIES	-11-			
2	BUILDING WORKS	-76-			
3	EXTERNAL WORKS	-84-			
	SUB-TOTAL		R		_
	LESS : Credit for old materials	Item	, n		
	LEGG . Gredit for old materials	iteiii			_
	SUBTOTAL		R		
	ADD : Value Added Tax (14%)		R		
	TOTAL CARRIER FORWARD TO TENDER FORM				_
	TOTAL CARRIED FORWARD TO TENDER FORM		R		_