		Quantity	Rate	Amount
BIL	<u>L NO. 1</u>			
PRE	ELIMINARIESNOTES			
i)	The agreement is to be the JBCC Series 2000 Principal Contract Agreement (Fifth Edition) prepared by the Joint Building Contracts Committee, July 2007			
ii)	The preliminaries are to be the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, January 2001 edition 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")			
vi)	If Alternative A as set out in clause B10.3 hereinafter is to be used for the 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			
SEC	TION A: PRINCIPAL BUILDING AGREEMENT			
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	Definitions (A1)				
1	Definitions and interpretation (clause 1)				
	Clause 1.1 : Shall be deemed to be amended as follows:				
	BILLS OF QUANTITIES The words "Measuring System" to be substituted with the words "Standard System of Measuring Building Work - sixth edition (revised) -1999"				
	THE CONTRACTOR SHALL PROVIDE Means that the contractor shall provide at his cost unless otherwise stated.				
	F: V: T:	Item	1.00		
	Objective and preparation (A2)				
2	Offer acceptance and performance obligations (clause 2)				
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	Preparation (A3-A14)				ı
3	Documents and Principal Building Agreement (clause 3)				l
	Clause 3.0 is amended by: Clause 3.1 is deleted in its entirety Clause 3.3 is deleted and replaced by the following:				
	"The employer REQUIRES the contractor to waive his lien or right to continuing possession of the works as stated in the contract data, the contractor shall do so within two (2) working days of given possession of the site. The employer will NOT provide a payment guarantee. The waiver shall be according to the JBCC Waiver of Contractor's lien form or such other form as stated in the contract data. The contractor shall simultaneously with the signing of every selected or domestic subcontract, deliver to the Principal Agent an undertaking and cession in respect of contractor's lien which shall mutatis mutandis conform to the JBCC Waiver of Contractors Lien form."				
	F:V:	Item	1.00		
4	Design responsibility (clause 4)				l
	Clause 4.0 is amended by the addition of the following:				l
	Should any part or parts of the complete set of tender documentation issued for construction not be clearly intelligible to the Contractor , the Contractor must obtain from the Principal Agent the necessary information with regards to insufficient descriptions and documents to clarify such information.				
	The Contractor shall be held solely responsible for ensuing delays due to nonconformity to the requirements of this clause and additionally any rectification costs of errors arising from incorrect interpretation of drawings, specifications or instructions issued.				
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Employer	's agents (clause 5)		
	3.2 is amended by the addition of the following		
Instruction the relevant	nority of the Principal Agent to issue Contract ons or to perform duties as may be required for ant aspects of the works is delegated to the cents as follows:-		
1. PRING	CIPAL AGENT		
monit prepa docur	Principal Agent is to manage, administer and for the contracts and processes, including the aration and co-ordination of the procedures and mentation to facilitate practical completion of orks.:		
1.1.	Arrange site handover to the contractor.		
1.2.	Establish construction documentation issue process.		
1.3.	Agree and monitor the distribution of construction documentation.		
1.4.	Instruct the contractor on behalf of the client to appoint subcontractors.		
1.5.	Conduct and record regular site meetings.		
1.6.	Monitor, review and approve the preparation of the construction programme by the contractor.		
1.7.	Regularly monitor performance of the contractor against the construction programme		
1.8.	Adjudicate entitlements that arise from changes required to the construction programme.		
1.9.	Receive, co-ordinate and monitor approval of all contract documentation provided by contractor(s)		
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1.10.	Agree quality assurance procedures and monitor implementation thereof by the other consultants and the contractors			
1.11.	Monitor preparation and auditing of the contractor's health and safety plan and approval thereof by the health and safety consultant.			
1.12.	Monitor preparation of the environmental management plan by the environmental consultant			
1.13.	Establish procedures for monitoring scope and cost variations.			
1.14.	Monitor, review, approve and issue certificates.			
1.15.	Receive, review and adjudicate any contractual claims			
1.16.	Monitor preparation of financial control reports by the other consultants			
1.17.	Prepare and submit progress reports			
1.18.	Coordinate, monitor and issue practical completion lists and the certificate of practical completion.			
1.19.	Co-ordinate and monitor rectification of defects			
1.20.	Manage procurement of operations and maintenance manuals, guarantees and warranties			
1.21.	Manage preparation of as-built drawings and documentation			
1.22.	Manage procurement of outstanding statutory certificates Monitor, review and issue payment certificates			
1.23.	Issue completion certificates			
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2.7.5.	Testing of work and materials and goods.		
2.7.6.	Protection of the works.		
2.7.7.	Making good physical loss and repairing damage to the works .		
2.7.8.	Lists for Practical Completion, Works Completion, Final Completi on and defects .		
2.7.9.	Compliance with Laws, regulations and bylaws.		
2.8.	Witness the handing over to the contractor of pegs, beacons and datum levels.		
2.9.	Define levels and provide the contractor with the necessary information to set out the works .		
2.10.	Inspect the work from time to tome and give the contractor interpretation and guidance on the standard and state of completion required for Practical Completion .		
2.11.	Inspect the works for Practical Completion.		
2.12.	Issue Works Completion list and reinspect upon requests of contractor .		
2.13.	Issue Works Completion list.		
2.14.	Inspect the works for Works Completion upon request of contractor.		
2.15.	Inspect the works at the end of the defects liability period.		
2.16.	Issue a Defects List and reinspect upon request of contractor .		
2.17.	Acceptance of Design by nominated or selected sub-contractor .		
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3. QUAN	TIITY SURVEYOR		
measu and al functio thereo	Quantity Surveyor is responsible for all urements, valuations, financial assessments all other Quantity Surveying and cost control ons. Without derogating from the generality f, the Quantity Surveyor shall perform the ng specific functions and duties:-		
3.1.	Consult with contractor in correction of rates for errors and discrepancies.		
3.2.	Prepare monthly the Recovery Statement .		
3.3.	Complete the Schedule and arrange for the signing of the agreement .		
3.4.	Hold a signed set of contract documents.		
3.5.	Supply the specified number of unpriced Bill of Quantities .		
3.6.	Identify any changes to the Standard JBCC Documentation in the Schedule and determine any loss and expense caused to the contractor caused by non-disclosure thereof.		
3.7.	Deal with amounts paid by the contractor to authorities having jurisdiction over the works .		
3.8.	Measure and value the making good of physical loss or damage.		
3.9.	Prepare nominated and selected Sub- Contract Tender Documents		
3.10.	Issue contract instructions to the contractor regarding:-		
3.10.1.	Rectification of discrepancies, errors in description or omissions in contract documents .		
3.10.2.	Furnishing proof of payment to nominated and selected subcontractors .		
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	3.10.3.	Budgetary allowances and work executed by the contractor thereunder.		
3	3.10.4.	Contingency and other monetary provisions included in the contract sum .		
	3.11.	Receive proof from the contactor and the contractor's payment obligations have been met in respect of nominated and selected sub-contractors .		
	3.12.	Act on Employers instructions to pay nominated and selected subcontractors directly.		
	3.13.	Adjustment of the contract value in respect of a revision to the date of Practical Completion .		
	3.14.	Calculate penalties for non-completion.		
	3.15.	Valuation of payment claims for Payment Certificates .		
	3.16.	Authorize or otherwise the removal of materials or goods from site by the contractor where these have been paid for.		
	3.17.	Calculate compensatory and penalty interest due to the parties.		
	3.18.	With each Valuation for Payment issue:-		
	•	Details of amounts certified for each nominated or selected sub-contractor. Notification to each nominated and selected sub-contractor showing the formulation of sub-contract amount included in Payment Certificates. A statement to the Employer and Contractor showing the total amount certified and all adjustment amounts.		
	2.20.	Determine the value of adjustments to the contract value.		
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2.21	Receive from the contractor details of expense and loss claims and assess such claims.			
2.22	Issue Recovery Statement with valuation for Payment Certificate .			
2.23	Prepare the final account and submit to contractor .			
4. CIV	L AND STRUCTURAL ENGINEER			
all a and gen will duti	civil and structural engineer is responsible for spects of civil and structural engineering design quality control. Without derogating from erality thereof, the civil and structural engineer perform the following specific functions and es in respect of civil and structural engineering ects of the works:			
4.1.	Give opinion of aspects of works which are not in accordance with the agreement .			
4.2.	Supply the specified number of drawings.			
4.3.	Issue instructions if bills of quantities/lump sum document are to be used as a specification.			
4.4.	Be responsible for the design of the works.			
4.5.	Receive and accept design documentation undertaken by nominated or selected subcontractors .			
4.6.	Issue contract instructions to the contractor regarding:-			
4.6.	Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works.			
4.6.2	Removal of any materials and goods from the site and the substitution of any materials and goods therefore.			
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4.6.3.	Removal or re-execution of any work.		
4.6.4.	Opening up of work for inspection.		
4.6.5.	Testing of work and materials and goods.		
4.6.6.	Protection of works.		
4.6.7.	Making good physical loss and repairing damage to the works .		
4.6.8.	Compliance with Laws, regulations and bylaws.		
4.7.	Define levels and provide the contractor with the necessary information to set out the works .		
4.8.	Inspect the work from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion .		
4.9.	Inspect the works for practical completion.		
4.10.	Inspect the works for works completion upon request from the contractor.		
4.11.	Inspect the works at the end of the defects liability period.		
4.12.	Acceptance of designed by nominated or selected sub-contractors .		
5. HVAC	ENGINEER		
HVAC Withou HVAC	VAC engineer is responsible for all aspects of engineering design and quality control. It derogating from the generality thereof the engineer will perform the following specific ns and duties in respect of HVAC aspects of rks:-		
5.1.	Give opinion of aspects of the works which are not in accordance with the agreement .		
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5.2.	Supply the specified number of drawings.		
5.3.	Issue instructions if bills of quantities / lump sum document are to be used as a specification.		
5.4.	Be responsible for the design of the works.		
5.5.	Receive and accept design documentation undertaken by nominated or selected subcontractors .		
5.6.	Issue contract instructions to the contractor regarding:-		
5.6.1.	Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works.		
5.6.2.	Removal of any materials and goods from the site and the substitution of any materials and goods therefore.		
5.6.3.	Removal or re-execution of any work.		
5.6.4.	Opening up of work for inspection		
5.6.5.	Testing of work and materials and goods.		
5.6.6.	Protection of works.		
5.6.7.	Making good physical loss and repairing damage to the works .		
5.6.8.	Compliance with Laws, regulations and bylaws.		
5.7.	Define levels and provide the contractor with the necessary information to set out the works .		
5.8.	Inspect the work from time to time and give the contractor interpretation and guidance in the standard and state of completion required for practical completion .		
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	5.9.	Inspect the works for practical completion.		
	5.10.	Inspect the works for work completion		
	5.11.	upon request from the contractor . Inspect the works at the end of the defects liability period.		
	5.12.	Acceptance of design by nominated or sub-contractor .		
	5.13.	Measure and value the making good of physical loss or damage.		
6.	ELECT	RICAL ENGINEER		
	of electric Without electric functio	ectrical engineer is responsible for all aspects trical engineering design and quality control. It derogating from the generality thereof the cal engineer will perform the following specific and duties in respect of electrical aspects works:-		
	6.1.	Give opinion of aspect of the works which are in accordance with the agreement .		
	6.2.	Supply the specified number of drawings.		
	6.3.	Issue instructions if Bill of Quantities / lump sum document are to be used as a specification.		
	6.4.	Be responsible for the design of the works .		
	6.5.	Receive and accept design documentation undertaken by nominated or selected subcontractors .		
	6.6.	Issue contract instructions to the contractor regarding:-		
	6.6.1.	Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works .		
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6.6.2.	Removal of any materials and goods from the site and the substitution of any materials and goods therefore.	
6.6.3.	Removal or re-execution of any work.	
6.6.4.	Opening up of work for inspection.	
6.6.5.	Testing of work and materials and goods.	
6.6.6.	Protection of works.	
6.6.7.	Making good physical loss and repairing damage to the works .	
6.6.8.	Compliance with Laws, regulations and bylaws.	
6.7.	Define levels and provide the contractor with the necessary information to set out the works .	
6.8.	Inspect the work from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion .	
6.9.	Inspect the works for practical completion.	
6.10.	Inspect the works for works completion upon request from the contractor.	
6.11.	Inspect the works at the end of the defects liability period.	
6.12.	Acceptance of design by nominated or selected sub-contractors .	
6.13.	Measure and value the making good of physical loss or damage	
FIRE S	AFETY ENGINEER	
aspect	re safety engineer is responsible for all s of fire safety engineering design and quality . Without derogation from the generality	
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follow	of the fire safety engineer will perform the ing specific functions and duties in respect of safety aspects of the works :-		
7.1.	Give opinion of aspects of the works which are not in accordance with the agreement .		
7.2.	Be responsible for the design of the works which will be reflected on the architect's drawings for construction. The fire safety engineer will not issue any drawings.		
7.3.	Issue contract instructions to the contractor regarding:-		
7.3.1.	Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works.		
7.3.2.	Removal of any materials and goods from the site and the substitution of any materials and goods therefore.		
7.3.3.	Removal or re-execution of any work.		
7.3.4.	Opening up of work for inspection.		
7.3.5.	Testing of work and materials and goods.		
7.3.6.	Protection of works.		
7.3.7.	Making good physical loss and repairing damage to the works .		
7.3.8.	Compliance with Laws, regulations and bylaws.		
7.4.	Define levels and provide the contractor with the necessary information to set out the works – all to be reflected on the architect's drawings		
7.5.	Inspect the work from time to time and give the contractor interpretation and guidance on the standard and state of completion required for practical completion		
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7.6.	Inspect the works for practical completion.		
7.7.	Inspect the works for works completion upon request from the contractor.		
7.8.	Inspect the works at the end of the defects liability period.		
7.9.	Acceptance of design by nominated or selected sub-contractors – if required.		
8. HEA	LTH AND SAFETY CONSULTANT		
all as from Cons funct	health and safety consultant is responsible for spects of health and safety. Without derogating the generality thereof, the health and safety sultant will perform the following specific tions and duties in respect of health and safety ects of the works:		
8.1.	Act as the Client's (Employer's) Agent in terms of the Occupational Health and Safety Act 85 of 1993 construction regulations 2014.		
8.2.	Prepare and update the health and safety specification for the works .		
8.3.	Agree with the contractor the health and safety plan for the works .		
8.4.	Carry out regular audits to ensure adherence to the safety plan, and compliance with the Act and Regulations.		
8.5.	Check the maintenance of all records registers and lists in terms of the requirements of the Act and the Health and Safety Plan and specification.		
8.6.	Issue Contract Instructions to the Contractor regarding:-		
8.6.1.	Compliance with Laws, regulations and bylaws.		
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	8.6.2. Compliance with the Health and Safety Plan and specifications for the works including halting the works where necessary.			
	F: V:	1.00		
6	Contractor's site representative (clause 6)			
	Clause 6.0 : Shall be deemed to be amended by the addition of the following:			
	The names and CV's and organogram of the contractor's proposed management team shall be submitted as part of the tender to be approved by the Principal Agent . After agreement on the composition and competence thereof has been obtained, no changes shall be made nor shall any member of the said team be removed from the project while remaining in the employ of the contractor, without the principal agent's prior written approval.			
	F: V: Item	1.00		
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7	Compliance with laws and regulations (clause 7)				
	Clause 7.1 : Shall be deemed to be amended by the addition of the following :				
	The fees for passing of plans will be paid directly by the Employer to the authorities and such fees are not included in these Bills of Quantities. No discount, percentage or profit on such fees will be allowed to the contractor.				
	Without limiting the generality of the provisions of clause 7.0, the contractor's attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the Employer shall prepare a documented health and safety specification for the works and that the Employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the Act and the regulations and the reasonable provisions of the aforementioned health and safety specifications				
	F: T:	Item	1.00		
8	Works risk (clause 8)				
	Clause 8.0 is amended by the addition of the following clause:				
	"8.2.3 The contractor shall be liable for and pay the deductibles, but will be entitled to recover the cost from the party responsible for the loss and/or damages"				
	F:V:	Item	1.00		
9	Indemnities (clause 9)				
	F: T:	Item	1.00		
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10	General insurances (clause 10)				
	Clause 10.0 is amended by the addition of the following clause:				
	"10.5 The Contractor shall be liable for and pay the deductibles"				
	F: T:	Item	1.00		
11	Special insurances (clause 11)				
	F: V: T:	Item	1.00		
12	Effecting insurance (clause 12)				
	F: V: T:	Item	1.00		
13	Assignment (clause 13)				
	F: V: T:	Item	1.00		
14	Security (clause 14)				
	Clause 14.0 : is deemed to be amended by the addition of the following clause:				
	14.9. "The contractor shall not have the right to choose the security, the employer shall withhold payment from the contractor as a form of security until the amount withheld is equal to ten percent (10%) of the contract sum . Such amount shall be reduced to two percent (2%) of the contract sum on the achievement of practical completion [24.0] and zero percent (0%) in the final payment certificate [34.8]"				
	F: V: T:	Item	1.00		
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ļ	Execution (A15-A23)		ľ		
15	Preparation for and execution of the works (clause 15)				
	Clause 15.6.1 is amended by the addition of the following clause:				
	"and issued to the Principal Agent within 5 (five) working days from taking possession of site"				
	Clause 15.6.3 is amended by the addition of the following clause:				
	"and issued to the Principal Agent within 7 (seven) working days from becoming aware of new work"				
	Clause 15.7 is amended by the addition of the following clause:				
	"and issued to the Principal Agent within 5 (five) working days from taking possession of site"				
	F: T:	Item	1.00		
16	Site and access (clause 16)				
	Known services - There are existing water, soil drainage, stormwater, electrical services, telephone services, etc serving the existing buildings on the site. The Contractor shall acquaint himself with the position of all such reticulation before any work likely to affect the existing services is commenced.				
	The Contractor will be held responsible for damage caused to existing services and any damage caused by or arising out of the subcontractor's operations shall be made good at his own expense				
	The provision by the Engineer of any drawings or other information indicating the position of any existing services shall in no way relieve the Contractor of his obligation hereunder to acquaint himself with the position of all existing services nor of his liability for damage to such services				
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	If a service has to be disconnected, the proposed relocated new service should be first installed and completed before the change over from the existing to the new service should be first installed and completed before the change over from the existing to the new service takes place. Any discontinuation of existing services and consequential damage and loss to shop owners will be for the account of the contractor				
	The appropriate time for disconnection of existing services and connecting up newly installed services shall be agreed well in advance with centre management, shop owners and the contractor				
	Protection of trees - Prior to the subcontractor commencing work on site, the Contractor shall agree with the Principal Agent which trees and shrubs are to be protected against damage. These trees or shrubs shall be marked in an approved manner and plotted onto a site plan which is to signed by both the Principal Agent and the Contractor. The Contractor shall be solely responsible for protecting these trees or shrubs during the contract period and will be charged the sum of R 10 000.00 (ten thousand Rand) per tree or shrub if in the Principal Agent's opinion any marked tree or shrub is irreparably damaged. Such charge shall be deducted from the following payment certificate				
	F: T:	Item	1.00		
17	Contractor's instructions (clause 17)				
	Clause 17.0 is amended by the addition of the following clause:-				
	"17.1.21 Acceleration – refer to clause 29.10				
	F: V: T:	Item	1.00		
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18	Setting out of the works (clause 18)				
	The Contractor shall notify the principal agent of any encroachments of adjoining and/or existing foundations, buildings, structures, pavements, boundaries, etc in order that the necessary arrangements may be made for the rectification of any such encroachments				
	F: T:	Item	1.00		
19	Temporary works and plant (clause 19) Clause 19.0 is amended by the addition of the following clauses:-				
	19.5: "The contractor shall provide 1 No. main notice boards of an approved design with the title of the project and the names of the employer , the principal agent , the agents and the contractor sign written thereon. The principal agent shall instruct the contractor where the boards are to be erected."				
	F: V: T:	Item	1.00		
20	Nominated Subcontractors (clause 20)				
	Clause 20.11 is added as the following: The Contractor shall not appoint a nominated sub- contractor on any terms and conditions other than those contained in the tender document prepared in terms of Clause 20.1.1 without written approval of the Principal Agent.				
	F: T:	Item	1.00		
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21	Selected sub-contractors (clause 21)				
	Clause 21.0 is amended by the following:-				
	Clause 21.11 is added by the following:-				
	"21.11 The contractor shall not appoint a selected sub-contractor on any terms and conditions other than those contained in the tender documents prepared in terms of clause 21.1.1 without the written approval of the principal agent "				
	F: T:	Item	1.00		
22	Employer's direct contractors (clause 22)	itom	1.00		
	F: T:	Item	1.00		
23	Contractor's domestic sub-contractors (clause 23)				
	F: V: T:	Item	1.00		
	Completion (A24-A30)				
24	Practical completion (clause 24)				
	The Contractor shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be entertained				
	F: T:	Item	1.00		
25	Works completion (clause 25)F: V:	Item	1.00		
26	Final completion (clause 26)F: V:	Item	1.00		
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27	Latent defects liability period (clause 27)				
	Clause 27.0 : Shall be deemed to be amended by the addition of the following:				
	Clause 27.4: Nothing in terms of the latent defects liability period shall be construed so as to restrict or to remove in any way the contractor's liability for any latent or patent defects and any insufficiencies in the works or materials nor to prescribe the Employer's common law of rights in any way				
	Clause 27.5: The contractor shall be obliged to attend to defects during the maintenance period on a progressive basis. i.e as defects manifest themselves he will be required to make good as reasonably possible to the satisfaction of the principal agent. The contractor will not be permitted to wait until the amount of defects accumulates in order to attend to a comprehensive list of defects.				
	F: T:	Item	1.00		
28	Sectional completion (clause 28)F: V:	Item	1.00		
29	Revision of date of practical completion (clause 29)				
	Clause 29.1.1 : Shall be replaced in its entirety and replaced by the following :				
	Inclement weather shall be defined as weather in excess of the average recorded for the past 10 (ten) years by the nearest commonly recognised weather bureau in the region of the project.				
	The Contractor shall be deemed to have allowed in his programme for the works and opposite this item or in his rates, for the cost of all delays as a result of weather conditions which are average or below that recorded as described above.				
	Furthermore, the Contractor shall also have been deemed to have allowed in his programme for the works and opposite this item or in his rates, for the cost of the loss of five (10) working days lost on the critical path of				<u> </u>
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weath The all progra delays	ogramme due to delays as a result of inclement er as defined above. Sove float which is included in the contractor's mme may also be used for any other critical path which the contractor may become entitled to, at le discretion of the principal agent.		
shall b	claim for delays as a result of inclement weather be made to the principal agent within seven (7) of the occurrence thereof, failing which no delays be recorded.		
Clause	e 29.1.6 : Shall be deleted in its entirety		
Clause	e 29.2.6 : Shall be deleted in its entirety		
The fo	llowing clauses shall be deemed to be added to 29.0 :		
comple	e 29.9 : Revision to the date for practical etion shall only be considered when work on the path of the agreed programme for the works is d.		
princip extens comple any tin to acce ensure	e 29.10: Irrespective of whether or not the cal agent rules that the Contractor is entitled to an cion of time or a revision of the date for practical etion, the principal agent shall nevertheless, at ne, be entitled to instruct the contractor in writing elerate the progress of the remaining works to e that the works are completed by the original date actical completion or revised date as the case may		
take a comple addition working conter regula other a Contra	receipt of such instruction, the Contractor shall Il necessary steps to ensure that the works are seted timeously including the provision by him of smal resources, plant, manpower, etc. and the g overtime or additional overtimes beyond that implated at the time of tender (at all times to the tions and requirements of all authorities) and by all adequate and proper means and methods. The actor shall prove that such steps are being taken if upon to do so.		
	ontractor's entitlement to compensation arising out n respect of any revision to the date for practical		
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which the contractor became or ought reasonably to have become aware of a potential delay to the completion or rectification of work on the lists, failing which the contractors right to claim shall lapse. The granting of additional time will be by decision of the employer and/or its nominated agent			
30.7 The penalty will be as follows for the works as a whole:			ĺ
30.7.1 R 500.00 per calendar day for the works that did not reach works completion			ĺ
30.8 Where the Employer levies such penalties the principal agent shall detail the amount for recovery in terms of 33.1.1			
30.9 The contractor shall agree with the employer in writing at least two (2) working days before access to the works is required for the completion or rectification of works on the works completion and defect lists. Should the contractor not be allowed access to the works on the agreed date the contractor will be granted additional time for completion of the works equivalent to the period's access was refused.			
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	Payment (A31 - A35)		ļ		
31	Interim payment (clause 31)				
	Clause 31.0 is amended as follows:				
	Clause 31.2 shall be amended by adding the following to the end of the first sentence " as of the 23 rd day of the month, by no later than the 25 th day of the month"				
	Clause 31.6.5 is deleted and replaced with: "No materials and goods stored off site will be included in any Payment Certificate"				
	Clause 31.9 is amended with substitution of the words "seven (7) calendar days" with the words "thirty one (31) calendar days"				
	The addition of the following : Interest referred to in sub-clauses above shall be equal to prime rate at the time of the agreement				
	F: T:	Item	1.00		
32	Adjustment to the Contract value (clause 32)				
02	Clause 32.0 is amended by the following:				
	Clause 32.2.3 is amended by the deletion of the words "plus an allowance of ten percent (10%) mark-up thereon" in the third and fourth line and the substitution thereof with the words "all at cost plus an allowance of five percent (5%) mark-up thereon"				
	Clause 32.2.4 is amended by the deletion of the words "but where the omission of such work varies the circumstances in which the remaining work is carried out, the value of the remaining work shall be determined by the method in terms of 32.2.2"				
	Clause 32.4 is amended by the deletion of the words "plus a ten percent (10%) mark-up thereon" in the second line and the substitution thereof with the words "plus five percent (5%) mark-up"				
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	Clause 32.0 is amended by the addition of the following clauses :				
	32.16 The Employer shall also have the right by notice to the Contractor to omit any work covered by the provisional amount or prime cost items contained herein.				
	The Contractor shall not be entitled to claim for any loss of mark-up or discount resultant from the omission of any provisional amount or prime cost items.				
	32.17 The omission of the work from the agreement and the performance thereof either in terms of 32.16 and/or the performance of such work after the construction period in respect of the relevant portion of the work by direct contract or by any person in terms of 32.16 shall not entitle the contractor to any attendance, mark-up, compensation, consideration, loss or damage under this agreement.				
	Clause 32.6 is amended by the deletion of the words forty (40) workings days and the substitution thereof with the words ten (10) working days ."				
	Clause 32.6.2 is amended by the deletion of the words twenty (20) workings days and the substitution thereof with the words five (5) working days ."				
	F: T:	Item	1.00		
33	Recovery of expense and loss (clause 33)				
	Clause 33.1.4 : Shall be deleted in its entirety				
	F: T:	Item	1.00		
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34	Final account and final payment (clause 34)				
	Clause 34.10 : Shall be deemed to be amended as follows:				
	The words "seven (7) calender days" to be substituted with the words "Thirty one (31) calender days"				
	Clause 34.11 : Shall be deleted in its entirety				
	F: T:	Item	1.00		
35	Payment to other parties (clause 35)				
	F: T:	Item	1.00		
	Termination (A36-A39)				
36	Termination by employer - Contractor's default (clause 36)				
	F: T:	Item	1.00		
37	Termination by employer - loss and damage (clause 37)				
	F: T:	Item	1.00		
38	Termination by Contractor - Employer's default				
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39	Termination - cessation of the works (clause 39)			
	Clause 39.1 :Shall be deemed to be amended as follows:			
	The words "ninety (90)" to be substituted with the words "thirty (30)" and the words "one hundred and twenty (120)" to be substituted with the words sixty (60)"			
	F: V:	n 1.00		
	Dispute (A40)			
40	Settlement of disputes (clause 40)			
	F: V:	n 1.00		
	Contract variables (A41)			
41	The schedule: Pre-tender information (clause 41)			
	F: V:	n 1.00		
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
	41.1.1 Employer: Waterberg TVET College Business Studies Campus			
	Tel: (015) 492 9000 Fax: (015) 492 9042 Physical Address: Cnr Totius & Hooge Streets, Mokopane, 0600			
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41.1.2 Principal Ager	nt: Komaru Consulting Engineer's		
Postal address	s: The Office Park 107 89 Hans van Rensburg Street Polokwane, 0699		
Tel: Fax: E-mail:	084 787 7552 <i>n/a</i> admin@komaru.co.za		
41.1.3 Agents service	e: Architect		
Postal address	s: The Office Park 107 89 Hans van Rensburg Street Polokwane, 0699		
Tel: Fax: E-mail:	084 787 7552 n/a admin@komaru.co.za		
41.1.4 Agents service	e: Quantity Surveyor		
Postal address	s: The Office Park 107 89 Hans van Rensburg Street Polokwane, 0699		
Tel: Fax: E-mail:	084 787 7552 n/a admin@komaru.co.za		
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41.1.5 Agents service	ce:Structural & Civil Engineer		
Postal addres	ss: The Office Park 107 89 Hans van Rensburg Street Polokwane, 0699		
Tel: Fax: E-mail:	084 787 7552 <i>n/a</i> admin@komaru.co.za		
41.1.6 Agents service	ce: Electrical Engineer		
Postal addres	ss: The Office Park 107 89 Hans van Rensburg Street Polokwane, 0699		
Tel: Fax: E-mail:	084 787 7552 <i>n/a</i> admin@komaru.co.za		
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41.2 CONTRACT DETAILS		
41.2.1 Interest of principal agent or of the project.	other agents in	
No		
41.2.2 The principal agent named in responsible for the preparation of the schedule and must be contacted shound be uncertain of the information proprovided. Failure to complete the contribution in full may result in the tender being distribution.	he contract date Id the contractor ovided or to be act data schedule	
41.2.3 Works Description: Maintenand Training Centre at Business Studies Ca		
Estimated CIDB requirement shall be 5	CE or higher	
41.2.4 Site Description: Waterberg TV Business Studies Campus	/ET College,	
41.2.5 Work or installations by direct of	contractors:	
Equipment Fit out, furniture, etc. (to be principal agent in time). The Contractor allow for access and attendance when at no extra cost.	is advised to	
41.2.6 This agreement is for a govern	ment contract: yes	
41.2.7 Date on which possession of the to be given: TBA	ne site is intended	
41.2.8 Period for the commencement the contractor takes possessio		
	1 working days	
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41.2.9	Completion in sections are required	No		
41.2.10	Intended date of practical completion penalty per calender day for the work whole:			
		alty unt: R2,000		
	Intended dates of practical completion sectional completion is required and to per calender day for the works in sections.	he penalty		
	N/A			
41.2.1 of cont	Waiver of the contractor's liest inuing possession is required.	en or right Yes		
	Existing premises will be occuryes" the specific requirements are depr detailed in the contract document .			
	The facility shall remain operational. measures should be taken into effect disruption to the facility a	to minimise		
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		Provision of temporary services is e "yes" the specific requirements are v or detailed in the contract document				
	Water	[OPTION A - Contractor - his cost] [OPTION B - Employer - free of charge] [OPTION C - Employer - metered but				
	contractor cost]					
	Electricity	[OPTION A - Contractor - his cost] [OPTION B - Employer - free of charge] [OPTION C - Employer - metered but				
	contractor cost]	С				
	Telecom	[OPTION A - Contractor - his cost] [OPTION B - Employer - free of charge] [OPTION C - Employer - metered but				
	contractor cost]					
	Ablutions	[OPTION A - Contractor - his cost] [OPTION B - Employer - free of charge]				
	contractor cost]	[OPTION C - Employer - metered but				
42	41.2.14 resolution body	Arbitration rules <i>(as per the following</i>)				
	The Association	n of Arbitrators Southern Africa				
	F: T:	V:	Item	1.00		
43		v applicable to this agreement shall be public of South Africa]				
	F: T:	V:	Item	1.00		
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41.3	INSURANCES				
41.3.2	Contract works insurance to be effected by Contractor For the sum of: TBA With a deductible of: TBA				
	Supplementary insurance is required Yes	s			
		Item	1.00		
41.3.3	Public liability insurance to be effected by Contractor For the sum of: TBA With a deductible of: TBA				
	V:	Item	1.00		
41.4	DOCUMENTS				
41.4.1	Waivers of contractors lien is required Yes	5			
41.4.2	Number of construction document copies to be supplied free of charge: 2				
41.4.3	Bills of quantities/schedule of rates drawn up in accordance with:				
	Standard System of Measuring Builders Work - sixth edition (revised) 1999.				
41.4.4	On acceptance of the tender the bills of quantities/lump sum document is to be submitted within 1 working days				
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41.4	.5 JBCC Engineering General Conditions are to be included in the documents:		
	No		
41.4 CP	.6 The contract value is to be adjusted using		
	No		
41.4	.7 Details of changes made to the provision of JBCC standard documentation:		
	As referred in these Bills of Quantities		
41.4	.8 On achievement of practical completion the contractor is to hand over manuals etc. related to the works as listed below.		
	All proprietary specified products / equipment that carries a Manufacturers guarantee and needs to be maintained in a prescribed manner		
41 /	.9 Interim payment certificate to be issued by		
41.5	The 2nd of every month		
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	41.4.10 DECLARATION BY THE PRINCIPAL AGENT				
	I, the principal agent named in 41.1.2 above, declare that the information provided above is complete and accurate at the time of calling for tenders. Where necessary, should any of the above information need to be varied, tenders will be forthwith informed thereof in writing.				
	Principal Agent Date				
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46	Contractual agreement (Clause 42)			
	The required information of the contracting parties and the amount of the accepted contract sum shall be inserted in the contractual agreement for signature of the agreement by the contracting parties			
	F: V:			
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	42.1 Contractor:			
	Physical address:			
	Tel: Fax: E-mail: VAT:			
	42.2 SECURITIES			
	Variable construction guarantee No			
	Fixed construction guarantee & payment reduction No			
	Retention reduction (Refer to clause 14) Yes			
	42.3 PAYMENT AND ADJUSTMENT OF PRELIMINARIES			
	3.1 Payment of preliminaries			
	The payment of preliminaries shall be according to the option of selected by the contractor. The amount included in each monthly payment certificate in respect of preliminaries as stated in the contract data shall be:			
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	3.1.1 Option A Assessed by the principal agent as an amount prorated to the value of work duly executed in the same ratio as the preliminaries bears to the contract sum excluding: * The amount for preliminaries * Any contingency sum * Any amount in respect of CPAP All inclusive of tax		
	3.1.2 Option B Calculated from the priced items in the bills of quantities/lump sum document. The contractor and the principal agent shall agree on a division of the priced preliminaries items into: * An initial or establishment charge * A final or disestablishment charge All inclusive of tax In arriving at such a division cognizance shall be taken of such factors as: * Premiums for annually renewable insurance policies * Plant, scaffolding and the like remaining the property of the contractor or the hiring company and the capital costs thereof not treated as part of the initial stage Where the initial construction period is extended the monthly charge shall be recalculated on the same basis as was originally applied but taking into account the revised construction period and the		
	amounts already paid to the contractor. Should the contractor and the principal		
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agent be unable to agree such division then the principal agent shall make a division of the amount of preliminaries to be incorporated in the valuations for each monthly payment certificate.	
3.2 Adjustment of Preliminaries The amount or items of preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time and/or value have on preliminaries. Such an adjustment shall be based on the particulars provided by the contractor for this purpose in terms of Option A or B and shall preclude any further adjustment of preliminaries.	
Adjustment of preliminaries in terms of Options A or B shall apply notwithstanding the actual employment of resources by the contractor in the execution of the works. The adjustment of preliminaries shall be based on the option as selected in the contractor's tender.	
For the adjustment of the preliminaries both the contract sum and the contract value shall exclude: * The amount of preliminaries * Any contingency sum * Any amount in respect of CPAP	
Clause 3.2 shall be amended by the addition of the following clause:	
"Should the Principal Agent instruct the Contractor to accelerate in terms of Clause A29 hereof, the Contractor's entitlement shall be calculated by adding to the entitlement to which he would otherwise have become due should the Contract Period have been extended, a further 30% to the value thereof	
The additional 30% shall be deemed to fully reimburse the Contractor for any additional expenses and loss beyond that contemplated by the Contractor at time of tender including the under	
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	utilization of any resources and the like due to the Contractor having been instructed by the Principal Agent to accelerate		
	3.2.1 Option A The amount of preliminaries shall be adjusted in the following categories: * An amount which shall not be varied * An amount which shall be varied in proportion to the contract value as compared with the contract sum * An amount which shall be varied in proportion to the construction period excluding revisions to the construction period for which the contractor is not entitled to adjustment of the contract value in terms of the agreement The contractor shall, within fifteen (15) working days of taking possession of the site, give the principal agent a breakdown, subdivided into the above categories, of the amount for preliminaries in tabulated form, all to the satisfaction of the		
	Should the contractor fail to fail to provide such information within the period stipulated then the amount for preliminaries shall be deemed to be subdivided into the following proportions: * 10% (ten percent) which amount shall not be varied * 15% (fifteen percent) which amount shall be varied in proportion to the contract value as compared with the contract sum		
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	* 75% (seventy five percent) which amount shall be varied in proportion to the construction period as compared with the initial construction period		
	For a lump sum document, should the contractor fail to identify the amount for preliminaries then such an amount shall be deemed to be 7,5% (seven and a half per cent) of the contract sum excluding: * Any contingency sum * Any amount in respect of CPAP All inclusive of tax		
	Where sectional completion is required in terms of the agreement, the contractor shall provide the principal agent with the division of the above categorised amounts into sections. Should the contractor fail to provide such information within the period stipulated the categorised amounts shall be prorated to the value of each section		
3.2.2	Option B		
	The contractor shall, within fifteen (15) working days of taking possession of the site, provide the principal agent with a detailed breakdown of the amount of preliminaries. This breakdown shall set out, among others, full particulars of administrative, supervisory and other personnel, plant, transport and other resources and charges included in the amount for preliminaries. The contractor shall show the periods to which the individual items relate with the charge rate for such items by means of a programme all to the satisfaction of the principal agent		
	Where sectional completion is required in terms of the agreement, the contractor shall provide the principal agent details of the resources required for each section and those that are common to sections. Should the contractor fail to provide such information within the period stipulated, Option A shall apply		
3.2.3	Payment certificate cash flow		
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1	The contractor shall provide all reasonable assistance to the principal agent in the preparation of cash flow projections of claims for payment certificates where required by the employer. The projections shall be based on the programme and shall be updated as and when the programme requires updating. The cooperation of the contractor in terms of this item shall not prejudice his right to receive payment in terms of the agreement				
	Payment of preliminaries B				
	Adjustment of preliminaries A				
	SECTION B: PRELIMINARIES (JBCC SERIES 2000 – CODE 2103)				
	Where it has not been appropriate to place exceptional items under section A, these have been included under this section				
	B1: DEFINITIONS AND INTERPRETATION				
	B2: DOCUMENTS				
47	B2.1 CHECKING OF DOCUMENTS				
	F: T:	Item	1.00		
48	B2.2 PROVISIONAL BILL OF QUANTITIES				
	Clause 2.2 is amended by the addition of the following:				
	These provisional bills of quantities are not to be used for ordering purposes				
	These provisional bills of quantities have been measured from architect's and engineer's drawings which are in the possession of the				
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quantity surveyor and may be inspected on demand by the Contractor at any time during the progress of the work and until the settlement of the contract on appointment during normal office hours		
No claim whatsoever will be allowed in respect of errors in pricing due to brevity of descriptions of items in the provisional bills of quantities which are fully described when read in conjunction with the relevant specification		
The quantities, classes and kinds of work set out in this document do not represent the final quantities, classes and kinds of work eventually required to be done. They are to be regarded as provisional only and not intended to indicate the final extent of the work. The entire contract works , when completed, will be remeasured by the quantity surveyor and/or relevant consultants, who shall determine the final quantities of and classes of work eventually executed		
The Contractor shall be obliged to execute such quantities, classes and kinds of work as the Principal Agent in his sole discretion may deem necessary or which, in the Principal Agents opinion, become expedient from time to time or which may be required to meet the employer's requirement or, notwithstanding any of the foregoing, which the Principal Agent in his sole discretion instructs the Contractor to do, whether or not such quantities, classes or kinds of work may appear in these bills of quantities or on the contract drawings		
The rates contained in the priced bills of quantities shall apply irrespective of the final quantities, classes and kinds of work actually executed. No claims for extras, loss of profit, variation of rates or other similar claims will be entertained as a result of any variations whatsoever between the quantities of work set out in these bills of quantities and the quantities of work actually executed, nor as a result of any variation whatsoever between the contract sum and the final value of the works		
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49	B2.3 AVAILABILITY OF CONSTRUCTION DOCUMENTS				
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	B3: PREVIOUS WORK AND ADJOINING PROPERTIES				
50	B3.1 PREVIOUS WORK – DIMENSIONAL ACCURACY				
	F: T:	Item	1.00		
51	B3.2 PREVIOUS WORK - DEFECTS				
	F: V: T:	Item	1.00		
52	B3.3 INSPECTION OF THE SITE				
	F: T:	Item	1.00		
	B4: SAMPLE, SHOP DRAWINGS AND MANUFACTURER'S INSTRUCTIONS				
53	B4.1 SAMPLE OF MATERIALS				
	F: T:	Item	1.00		
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54	B4.2 WORKMANSHIP SAMPLES				
	F:V:	Item	1.00		
55	B4.3 SHOP DRAWINGS				
	F: V: T:	Item	1.00		
56	B4.4 COMPLIANCE WITH MANUFACTI	URER'S			
	F: V: T:	Item	1.00		
	B5: DEPOSIT AND FEES				
57	B5.1 DEPOSIT AND FEES				
	F: V: T:	Item	1.00		
	B6: TEMPORARY SERVICES				
58	B6.1 WATER				
	F:V:	Item	1.00		
59	B6.2 ELECTRICITY				
	F:V:				
	T:	Item	1.00		
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60	B6.3 TELECOMMUNICATION FACILITIES				
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61	B6.4 ABLUTION FACILITIES				
	F:V:	Item	1.00		
	B7: PRIME COST AMOUNTS				
62	B7.1 RESPONSIBILITY FOR PRIME COST AMOUNTS				
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	B8: SPECIAL ATTENDANCE ON N/S SUBCONTRACTORS				
63	B8.1 SPECIAL ATTENDANCE				
	Clause 8.1 shall be amended by the addition of the following:-				
	The contractor shall allow all nominated/ selected/ direct subcontractors reasonable usage of hoisting facilities whilst they remain erected.				
	The Contractor shall specifically provide all necessary scaffolding and special scaffolding for all work to the roof, facades, ceilings/bulkheads, electrical works, mechanical works, fire, plumbing & drainage, lecture hall tables and chairs, columns, walls, etc. whether executed by himself or nominated/ selected/ direct subcontractors.				
	F: T:	Item	1.00		
	B9: GENERAL				
64	B9.1 PROTECTION OF THE WORKS The Contractor shall specifically take whatever measure he deems necessary to protect existing work and finished work once installed and any damage				
	caused by the Contractor or his Subcontractor shall be made good at the expense of the Contractor				
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65	B9.2 PROTECTION/ISOLATION OF EXISTING/SECTIONALLY OCCUPIED WORKS			
66	F:	1.00		
67	F: V:	1.00		
68	F: V:	1.00		
	The Contractor shall execute the whole of the works with a minimum of disturbance to adjoining premises, and the occupants of those premises to the satisfaction of the principal agent and to comply with all regulations. The Contractor shall be solely responsible for all claims in this connection			
	There is no guarantee given or implied that the Contractor will be permitted to utilise any of the plant he proposes to use in the construction of the works There is no guarantee given or implied that the contractor will be permitted to utilise any of the plant he proposes to use in the construction of the works.			
	2. The Contractor shall take all necessary measures to minimise noise. Such measures shall include inter alia, the use of "silent" compressors			
	3. The Contractor shall take all necessary			
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measures to ensure that no dust emanates from the works. In this regard, the Contractor shall allow opposite this item for watering the works and any stockpiles of material on site, whenever necessary, in order to keep dust down. Should the Contractor be of the opinion that watering only is not adequate, then the Contractor shall, at his own expense, use any other methods which he may deem necessary		
4. All work is to be carried out in such a manner as to cause no unacceptable and unreasonable noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic and the work shall be carried out to the satisfaction of the principal agent. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the contract period or contract sum		
The Contractor is deemed to have accepted full responsibility during any blasting operations that may be carried out, should blasting be permitted. The Contractor shall take all necessary precautions for the safety of all persons, buildings, etc., and is to observe all conditions set forth in government and Local Authorities regulations in connection with the use of explosives and pay all costs and fees in connection therewith		
The Contractor is to adhere to all instruction of the engineer in regard to blasting procedures but regardless of such instructions the Contractor shall be solely responsible for any damage arising from blasting. All blasting is to be done by a licensed blaster. The Contractor shall indemnify the employer against any claims for damages to persons or property on or near the site from any cause whatsoever arising out of the use of explosives. No claims for any extras whatsoever will be entertained should the Contractor be		_
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	prohibited by any authority whatsoever from using explosives for carrying out any portion of this contract. Notice of blasting is to be given to the engineer 24 hours before it is intended to perform the work				
	By entering into a contract with the employer the Contractor shall be deemed to have indemnified the employer against and accepts the entire responsibility for any claims, costs, damages and all other loss of whatsoever nature or delays which may arise on the above grounds for an adjustment to the contract period or contract sum				
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70	B9.7 WORKS CLEANING AND CLEARING				
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12	B9.9 OVERHAND WORK			
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	The extent of the site is mainly on the basement area of the facility. Site establishment areas must be agreed with the Principal Agent . The site shall not be used for any purpose other than that of carrying out the works . Access to the site shall be restricted to one entrance and exit point only as directed by the Principal Agent. No claims for extras arising from these matters will be subsequently entertained or admitted Refer also to clause B.6: Temporary services			
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74	B9.11 MANAGEMENT OF THE WORKS	l.			
	"The Contractor shall to the satisfaction of the Principal Agent provide, in addition to the Foreman, the services of an experienced and competent Construction Manager and Site Agent supported by a management team who shall, inter-alia be responsible for all activities of the Contractor and all Subcontractors and in particular:				
	(a) Programming				
	(b) Scheduling				
	(c) Reporting				
	(d) Production of shop drawings and samples				
	(e) Procurement and expediting				
	(f) Liaison and co-ordinating of construction				
	(g) Commissioning, instruction, handover and follow-up				
	 (h) Monitoring and reporting on building activities taking place off-site" The names and CV's of the Contractor's site management team shall be submitted to the Principal Agent prior to commencement on site and, after agreement on the composition thereof has been obtained, no changes shall be made nor shall any member of the said team be removed from the site while remaining in the employ of the Contractor without express written approval 				
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75	#B9.12 PROGRAMME FOR THE WORKS "B9.12.1Immediately on award of the Contract and prior to commencement on site, the Contractor, in conjunction with the Principal Agent, shall agree the working programme covering the first month of the Construction				
	period. During the first month of the construction period the Contractor				
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shall prepare and draw up in conjunction with the Principal Agent the programme for the balance of the works in accordance with the conditions of this clause B.9.12		
The Principal Agent shall have the right to modify such programme to accommodate changes necessary in his opinion for co-ordinating the project as a whole. Any cost implications relating to such modification shall be dealt with in accordance with the provisions of the Agreement.		
B9.12.2Notwithstanding the fact that the programme has been prepared in conjunction with the Principal Agent , the Contractor shall be responsible at all times for maintaining the accuracy, validity and reasonableness of the programme, and the implementation thereof and shall not be relieved of any of his obligation under the conditions of contract or his responsibility for preparing implementary and maintaining the programme for the works and the Contractor shall have at his disposal staff with the experience, technical ability and expertise to ensure that the programming is realistic. Contractors are invited to discuss any difficulties encountered or foreseen with these programming requirements with the Principal Agent prior to the submission of tenders B.9.12.3The programme shall be compiled		
based on the Critical Path method of programming and the critical activities are to be clearly highlighted. It shall be compiled in such a way that logic is not constrained by resource limitations unless specifically agreed otherwise by the Principal Agent .		
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The programme will be processed on the Principal Agents system and the Contractor shall provide all the cooperation necessary to achieve this.		
B9.12.4Documentation will not be available in complete detail at the commencement stage. However the Contractor, in conjunction with the Principal Agent, shall plan the Works on provisional information, to an agreed level of detail relating to the level of detailed information available and with sufficient scope to include future detail without disrupting the basic logic as initially agreed.		
The quantities contained in this document are provisional and shall be utilized as a guide only for the drawing up of the programme. Where assumptions are made in regard to programming aspects, such assumptions shall be agreed by the Contractor and the Principal Agent, and suitably recorded in the programme.		
B9.12.5Should circumstances change to the extent where the Contractor is of the opinion that changes to the programme are required, then the Contractor shall make written request to the Principal Agent for such changes, clearly identifying the reasons for requiring such change. The Contractor and Principal Agent shall thereafter agree such changes, if any.		
Should there be any float period indicated between the contractual completion dates and the contract programme completion dates then this float shall be used at the discretion of the Principal Agent first to absorb any delays or extensions of time without		
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affecting the contractual completion date		
Any extension of time, which is sanctioned by the Principal Agent, will be specifically annotated in the programme and the associated effect will be incorporated in the revised programme. Should the additional activities or the extension of time on existing activities fall on a non-critical area of the programme, extension will be limited to the activities affected by the said additional activities or extensions and the contractual dates shall not be affected. If, however, the additional activities fall on the critical path, the Principal Agent will take this into account when granting any extension of time in terms of the Conditions of Contract Should the Principal Agent be of the opinion that the programme requires revisions, and notwithstanding the fact that a request for such revision has not been received from the Contractor , the Principal Agent shall be entitled to instruct the Contractor to revise the programme accordingly, unless the Contractor can submit reasonable justification for not doing so.		
Any acceleration and/or special measures sanctioned by the Principal Agent together with associated effects shall be incorporated in a revision to the Programme.		
Agent shall, at regular intervals not exceeding one month, agree the state of progress of the works relative to the latest agreed revision of the programme. Such agreement shall include the recording of actual commencement and completion dates		
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for each activity and shall constitute the official record of the progress at such point in time.			
B9.12.7In addition to the programming requirements as contained herein. Within 14 (fourteen) calendar days after being appointed to carry out the works, the Contractor shall submit a proposed schedule of Information Required, "Info Schedule" to all parties concerned, indicating dates upon which information and details are required and the dates on which selected subcontractors are to be appointed in relation to the building programme. Such dates are to take cognizance of lead times and commissioning periods			
The Info Schedule shall be directly related to the agreed Construction Programme and shall not contain any requirements which are, in the Principal Agent opinion, unreasonable or premature			
The proposed Info Schedule will be circulated to all professional consultants for consideration and approval. The Info Schedule, as may be amended and finally agreed upon, will then become the Info Schedule for the contract Thereafter timeous advance notice is to be given by the Contractor for further details information or drawings which are required on site			
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76	B9.13 ENCLOSURE OF THE WORKS			
	Hoardings shall be as dictated by site circumstances and as may be required by any authority. Adequate hoarding for the site (including hoarding off areas of the facility that will be off limits to the contractor's personnel) and the contractor's lay down area shall be prepared and priced for by the contractor accordingly, it is imperative that the contractor visits the site and requests more information from the principal agent on these areas. All costs in connection therewith must be borne by the Contractor including any costs in complying with any local or other authorities requirements in this regard Notwithstanding the above, the Contractor shall maintain, move where necessary and provide any additional entrances as he may require and remove the fence or hoarding on completion All hoardings to be maintained to an acceptable standard to the principal agents approval	n 1.00		
	SECTION C: ADDITIONAL PRELIMINARY CLAUSES The following clauses are additional to, or augment the clauses contained in sections "A" and "B" of these preliminaries.			
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	C1: UNAUTHORISED PERSONS ON SITE				
	The Contractor shall at all times strictly exclude all unauthorised persons form the works.				
	No workmen or labourers are to be allowed under any circumstances to sleep or deposit any kit on the premises. The Contractor must provide any necessary independent shelter or shed required for any labour of watchman left on the site.				
	Furthermore the Contractor shall take all measures necessary to insure that no workmen allowed into the building at any time after practical completion without the specific permission of Principal Agent .				
	Suitable identification cards must be worn by all construction personnel including sub-contractors, at all times. These identification cards will be issued by the main contractor.				
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	C2: PRICING OF BILLS				
8	Tenderers are to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement) patterns, models and templates, plant, temporary works, returning of packing, duties, taxes, imposts, establishment charges, overheads, profit and all other obligations arising out of the contract .				
	Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.				
	Prices for all plant, temporary works, services and other items provided shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary.				
	The Contractor shall execute work during "overtime" hours as dictated by the specific requirements of this project and necessary in order to complete the project within the agreed construction period and shall provide such resources and work such overtime hours as necessary. Note that no work such as demolitions, breaking down of walls or any other work which will generate a noise level that would inconvenience any neighbouring occupants during normal working hours as referred to below will be allowed without notifying and agreeing the same with the principal agent. The contractor should allow for this work to take place between 7:00am and 17:00pm. Costs for the execution of this work under these conditions shall be included within the Contract sum				
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	C3: NATURE OF PROJECT IN RELATION TO PRICING				
79	Tenderers are advised that the nature of this contract is such that the detail design will evolve in parallel with construction.				
	The tenderer acknowledges that he is aware that planning and production of drawings are in the embryonic stage and that the appointments of Selected/Nominated sub-contractors are yet to take place and that notwithstanding this, the rates and prices contained herein as well as the amounts allowed shall remain of full force and effect.				
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00	C4: COST OF CLAIMS				
80	All costs incurred by the Contractor in the preparation of claims to the satisfaction of the Principal Agent and/or Quantity Surveyor shall be borne by the Contractor				
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	C5: DIRECT CONTRACTS				
81	CLAUSE 5.1 : DIRECT AND SEPARATE CONTRACTS				
	The Employer shall have the right to employ other Contractors (hereinafter referred to as "Direct Contractors") to execute any special or other works whether contained in this Contract or not, concurrently with the work being executed under this Contract.				
	In addition, the Employer shall have the right to send on to the Works any electronic fittings, information technology work, furniture and furnishings and have same installed by his own employees or by Direct Contractors . The				
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percenta any wor shall Contract have ac space in material the wor Contract	ge, profit or discount on the value of a executed by "Direct Contractors' but nevertheless allow these Direct ors and the Employer 's employees to cess to the Works , allocate reasonable in the building for the storage of their is, tools and equipment, and co-ordinate is of and "attend upon" such Direct tors as necessary all to the satisfaction incipal Agent			
Contract latrine a supply of	tors, etc., to use, free of charge, the accommodation and water and power of the site, and shall not in any way reprevent the execution of their work			
connecti coordina Contract stated a entertair	ntractor is to allow for any costs in on with providing access for and ting and "attending upon" such Direct ors, etc., and for the use of the facilities bove and no additional claim will be ed due to the presence on the Works Direct Contractors			
good a prevent compen	the Contractor be required to make fter such Direct Contractors or to jobbing, etc., the Contractor will be sated for any costs incurred by him the f Clause 32 of the Principal Building ent			
generali that the the Em l	in any way detracting from the y of the above, Contractors are advised following works will be carried out by bloyer and/or their direct Contractors value of such work is not included in tract:			
•	T Equipment and furniture Audio Visual equipment Lockers Kitchen Fit-out, etc.			
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	The contractor should allow for early occupation for the installation of these facilities, specifically computer room(s), to enable the direct contractors to finish their first and second fix items on or before practical / sectional completion. The final fix equipment will only be installed after practical completion for insurance purposes. A detailed schedule indicating the anticipated early occupation dates for the various items				
	shall be agreed between the contractor and the principal agent				
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	C6: MODE OF PROCEDURE				
82	Notwithstanding anything to the contrary contained herein the principal agent at all times reserves the right to direct the order in which the various parts of the works are to be executed. The contractor shall give priority to any individual section or portion of the works that, in the opinion of the principal agent , requires to be expedited.				
	Should the contractor and/or principal agent be of the opinion that such instruction warrants a revision to the Contract Programme, then the provisions of Clause B3.2.6 hereof shall apply.				
	Should it appear, in the principal agent's opinion, that work in any area is not being executed in accordance with the requirements of the Programme, the contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the principal agent .				
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	C7: CONFIDENTIALITY				
83	The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings wherever necessary. Such information shall not be used in any way except in connection with the execution of the works				
	No information regarding this project shall be published or disclosed without the prior written consent of the employe r				
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	C8: SITE INSTRUCTIONS				
84	Contract instructions issued on site are to be recorded by the Principal Agent in a Site Instruction Book which will be issued by the Principal Agent and which shall be maintained on site. Only site Instructions issued in such book shall be recognized				
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C9: METHOD OF STATEMENT			
The Tenderer shall produce, when required to do so by the principal agent , a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works . Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works .			
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C10: OVERLOADING			
The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works, e.g. scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc., to the principal agent for their approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense.			
Notwithstanding any approval, comments or directions given by the Engineer the Contractor shall be entirely responsible for damage caused to the Works by overloading which damage shall be made good by the Contractor at his sole expense			
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C11: HANDOVER, GUARANTEES AND MAINTENANCE INSTRUCTION MANUALS			
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	C9: METHOD OF STATEMENT The Tenderer shall produce, when required to do so by the principal agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works. Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works. F:	C9: METHOD OF STATEMENT The Tenderer shall produce, when required to do so by the principal agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works. Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works. F:	C3: METHOD OF STATEMENT The Tenderer shall produce, when required to do so by the principal agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the works. Any approval given or observation made by the principal agent shall not relieve the contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the works. F:

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87	CLAUSE 11.1 : AS BUILT DRAWINGS		
	Copies of the structural engineer's drawings showing the positions of construction breaks and the extent of individual concrete pours are to be maintained by the contractor for record purposes and are to be submitted to the structural engineers for their records, at the end of the project. The contractor shall be required to ensure that, at the end of the project, copies of the plumbing, drainage and fire services reticulation layouts, showing the position of main pipe runs, the positions of stopcocks and all other salient information, are submitted to the principal agent. All such as built drawings are required to be lodged prior to the issue of the certificate of works completion (refer Clause A25 hereof).		
	CLAUSE 11.2 : GUARANTEES AND MAINTENANCE INSTRUCTIONS/MANUALS		
	The Contractor shall obtain and hand over to the Principal Agent on practical completion any operating and maintenance instruction manuals data or instructions required by the Principal Agent or provided by manufacturers, suppliers or Subcontractors		
	The Contractor shall ensure that all warranties and guarantees received are fully ceded to the employer on works completion, failing which, the issue of the works completion certificate and the release of construction guarantee, will be withheld until this is satisfactorily completed.		
	The guarantees shall state that workmanship, materials and installations are guaranteed for a specified period reckoned from the date of practical completion of the works and that any defects in the workmanship, materials and installation that may arise during that period, shall be made good at the expense of the contractor / subcontractors doing the work, upon written notice from the principal agent or the employer to do so.		
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	Requires a five (5) year guarantee on all work, material and equipment					
	CLAUSE 11.3 : SECURITY AT COMPLETION					
	At completion, the Contractor shall leave the works secure with all accesses locked. The Contractor shall account for and hand over to the principal agent all keys, properly labelled with an itemised schedule to be signed by the principal agent as receipt.					
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	C12: GENERAL IN RESPECT OF SPECIALIST INSTALLATIONS					
88	Note : The contractor is to ensure that the following requirements, as stated in the subcontractor documentation in respect of specialist equipment and services installations by specialist subcontractors under his control, are adhered to:					
	CLAUSE 12.1: TESTS AND INSPECTIONS PRIOR TO COMPLETION All specialist plant and equipment, subject to the principal agent's sole discretion, is subject to acceptance tests, which shall be arranged in the works of the subcontractor / supplier within 10 days of notification that such plant or equipment is available for testing. The subcontractor shall inform the principal agent in writing, indicating the exact dates for these acceptance tests during the course of the last month of manufacture of such plant or equipment. In the event that the principal agent or his representatives cannot witness such tests, the employer may: i) appoint a specialist inspection organisation to witness such tests at his Expense on behalf of the principal agent or his representatives.					
	OR					
	ii) accept the subcontractors certificate testifying as to the quality and Performance of the specialist plant /					
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	equipment so supplied.	
	Should no inspection have been made by the date indicated by the subcontractor as set out above, the equipment will be deemed as accepted and packed accordingly for delivery.	
	The final acceptance will take place on site in the presence of the subcontractor responsible for the commissioning of the equipment. The principal agent's representative shall also be present.	
	The subcontractor shall demonstrate to the principal agent the full scope of operation of the installation and shall ensure that he is satisfied that the principal agent is fully aware of all the operational aspects of the installation prior to handover at practical completion stage.	
	The principal agents shall be afforded access at all reasonable times to such part of the works on site or at the subcontractor's premises or the premises of the manufacturer of component parts, as may be necessary for the purpose of inspecting, examining and testing the materials, workmanship and performance of any plant or equipment for the works.	
	The subcontractor shall be responsible for the tests required by any local statute, building regulation, etc.	
	Any breakdown or mechanical failure and any damage or consequential losses which may arise from such breakdown, mechanical or structural failure, will be the responsibility of the subcontractor.	
	CLAUSE 12.2 : PERFORMANCE OF INSTALLATION	
	The efficiency of the design is the responsibility of the subcontractor who shall ensure that the quality of workmanship and the installation of equipment meets the requirements of the specification and is done in such a manner that the equipment performance meets with the figures published by the manufacturers and/or suppliers. The contractor & subcontractors, by entering into this	
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	contract, shall be deemed to have offered his services, workmanship, materials and equipment to meet the requirements of the specification and shall further be deemed to have ensured that the suppliers and manufacturers of the equipment installed by him under this contract, have manufactured and supplied such equipment to perform within the recommended limits of the manufacturer's design and performance figures, as well as to comply with the specification supplied. CLAUSE 12.3: GUARANTEE The contractor & subcontractors shall guarantee the complete installation for a period of five years or as directed by the Principal Agent from the date of acceptance of the installation by the principal agent against defects as a result of patent or latent defects of the design and apparatus, as well as against faulty materials and workmanship. The guarantee must provide that all parts, spares, consumables and appurtenances that become defective during the guarantee period, be replaced free of charge of any nature to the employer. The costs of labour and transportation required to replace such part of a defective installation, shall be borne by the subcontractor and shall be included in his guarantee. The expiry of the one year guarantee period shall in no way relieve the subcontractor of any of his obligations and/or responsibilities in respect of latent defects in terms of Clause A27 hereof. The subcontractor shall cede to the employer the remainder of any equipment guarantee which he has received from his suppliers and which extends beyond the period of 5 years mentioned herein. CLAUSE 12.4: COMMISSIONING AND TESTING The contractor & subcontractors shall commission and test the entire installation at his own expense, including provision of all test equipment. Such testing is to be done in the presence of the principal agent, who shall			
	have been notified of the dates and approximate duration of the tests, sufficiently in advance so as to allow attendance at such tests.			
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C13: GENERAL				
CLAUSE 13.1 : CONTRACTOR TO BE RESPONSIBLE				
The contractor acknowledges that the principal objective of his appointment is his expert knowledge in the execution of the scope of work of this contract. The contractor shall be solely responsible for all aspects of the construction the works including but not limited to management, resourcing, programming and coordination of sequencing of work all as required for the type of project described and within the time limits and quality standards specified.				
CLAUSE 13.2 : MEDIA RELEASES, ADVERTISING, ETC				
All rights of publication of articles in the media, together with any advertising relating to, or in any way connected with this project, shall vest with the employer.				
The contractor together with his subcontractors shall not, without the written consent of the employer, cause any statement or advertisement to be printed, screened or aired by the media.				
CLAUSE 13.3 : STRUCTURAL SAFETY				
The contractor shall take all reasonable measures to ensure that all alteration works are structurally practicable and safe. The contractor shall provide and price under the relevant demolition item, for all necessary temporary propping and support which may be required.				
CLAUSE 13.4 : CONDEMNED WORK				
The contractor shall remove from the site all materials not conforming with the relevant specification and condemned by the principal agent, whether incorporated in the works or not. He shall replace such material and re-execute the affected work in accordance with the contract and without expense to the employer.				
The contractor shall also bear the expense of making				
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good any other work damaged or destroyed by such removal or replacement.		
CLAUSE 13.5 : PHOTOGRAPHIC RECORD		
A two weekly photographic record is to be provided by the contractor, recording the state of progress of the works. Copies of each photograph annotated with the location and date, are to be made available to the employer via the principal agent.		
CLAUSE 13.6 : ROYALTIES, PATENT RIGHTS AND FEES		
The contractor shall indemnify the principal agent against any action, claim, demand, costs or expenses arising from or incurred by reason of any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment or part thereof otherwise than in accordance with the provisions of the specification.		
All payments and royalties payable in one sum or by instalments or otherwise, shall be included by the contractor in the price and shall be paid by him to those to whom they may be due or payable.		
In the event of any claim being made or action brought against the principal agent arising out of the matter referred to in this clause, the contractor shall be promptly notified thereof and may, at his own expense, conduct negotiations for the settlement of the same and/or litigation, that may arise therefrom. The principal agent shall not, unless and until the contractor shall have failed to take over and conduct the negotiations of litigation, make any admission which might be prejudicial thereto.		
The conduct by the contractor of such negotiations or litigation shall be conditional upon the contractor having first given the principal agent such reasonable security as shall from time to time be required by the principal agent, to cover the amount ascertained or agreed or		
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dan age as a the pur	mated, as the case may be, or any compensation, lage, expenses and costs for which the principal not may become liable in respect of such infringement foresaid. The principal agent shall, at the request of contractor, afford all available assistance for the loose of contesting any such claim or action and shall epaid the expenses incurred in doing so.			
litigation first as a second a	conduct by the contractor of such negotiations or ation shall be conditional upon the contractor having given the principal agent such reasonable security hall from time to time be required by the principal at, to cover the amount ascertained or agreed or mated, as the case may be, or any compensation, age, expenses and costs for which the principal at may become liable in respect of such infringement foresaid. The principal agent shall, at the request of contractor, afford all available assistance for the lose of contesting any such claim or action and shall epaid the expenses incurred in doing so.			
CLA	USE 13.7 : QUALITY ASSURANCE			
Ass revi imp	tenderer is to submit their proposed formal Quality urance procedures with their tender submission for ew by the Principal Agent. The cost of preparing and ementing the Quality Assurance procedures is to be see by the contractor.			
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C14: MAINTENANCE OF ROADS AND SERVICES				
<u>SERVICES</u>				
The contractor shall keep the approaches of				
the site clear of mud, dust, other debris and the like caused by the contractor or any				
subcontractors. The contractor shall regularly				
water the access road to keep it free from				
excessive dust.				
Damages caused to public and private roads				
and services due to negligence by the				
contractor, shall be made good by the				
contractor at his own expense.				
Without limiting the generality of the				
provisions of clause 7.0 of the agreement , the				
contractor's attention is drawn to the provisions of the Construction Regulations,				
2003 issued in terms of the Occupational				
Health and Safety Act, 1993. It is specifically				
stated that the employer shall prepare a				
documented health and safety specification for the works and that the employer shall				
ensure that the contractor has made				
provision for the cost of health and safety				
measures during the execution of the works.				
The principal agent shall, on behalf of the employer , issue such health and safety				
specification in due course and in the interim				
the contractor shall price separately opposite				
this item for compliance with the standard provisions of the act and regulations.				
·				
Any costs as a result of variation between the standard provisions and the actual health and				
safety specification for the works shall be				
resolved in terms of clause 32.0 of the				
agreement.				
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	C15: COMMUNITY LIAISON OFFICER			
91	The Contractor shall allow for the appointment of a community Liaison Officer (CLO) to act as a facilitator between the local community and the contractor for the full duration of the contract. The CLO's remuneration and all associated costs shall be borne by the contractor.			
	F: V:	1.00		
	Carried to Final Summary		R	
	Section No. 1 Bill No. 1 Preliminaries PUR 5603/40			

	Quantity	Rate	Amount	
BILL NO 1				
EARTHWORKS (PROVISIONAL)				
PREAMBLES				
The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
NOTE:				
This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
No claims arising out of failure to do so will be entertained.				
These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
Carried Forward Section No. 2 Bill No. 1 Earthworks PUR 5603/40		R		_
	EARTHWORKS (PROVISIONAL) PREAMBLES The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill. NOTE: This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications. No claims arising out of failure to do so will be entertained. These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document Carried Forward Section No. 2 Bill No. 1 Earthworks	BILL NO 1 EARTHWORKS (PROVISIONAL) PREAMBLES The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill. NOTE: This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications. No claims arising out of failure to do so will be entertained. These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document Carried Forward Section No. 2 Bill No. 1 Earthworks	BILL NO 1 EARTHWORKS (PROVISIONAL) PREAMBLES The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill. NOTE: This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications. No claims arising out of failure to do so will be entertained. These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document Carried Forward Section No. 2 Bill No. 1 Earthworks	BILL NO 1 EARTHWORKS (PROVISIONAL) PREAMBLES The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill. NOTE: This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications. No claims arising out of failure to do so will be entertained. These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document Carried Forward R Section No. 2 Bill No. 1 Earthworks

	Brought Forward	R	
communi	ractor is advised to be in constant cation with the quantity surveyor during the the tender process and/or project with regards owing:		
- Should drawings	drawings versus the Tender bills of quantities there be a discrepancy between the tender and the bills of quantities, the contractor shall quantity surveyor immediately.		
quantities construct	uction drawings versus the Tender bills of see Should there be a discrepancy between the sion drawings and the bills of quantities, the see a respectively.		
the princi	structions - The quantity surveyor together with pal agent shall be notified immediately of any actions or potential costs in accordance to the		
	s or costs arising out of not adhering to the I be entertained.		
SUPPLE	EMENTARY PREAMBLES		
Protection	on of works		
be protec	ote that all existing works, finishes, etc. are to ted to the satisfaction of the principal agent tenderers should allow in their rates for such in.		
Definition	<u>ns</u>		
measured these des payment units as r this regar have any engineer tender. S	riptions and units of quantities below are digenerally in terms to suit this project. Where scriptions and units are in conflict with the provisions of SABS 1200, the descriptions and neasured below shall apply and no claims in dishall be entertained. Should the tenderer queries, he should clarify same with either the or quantity surveyor prior to submission of illence on any issue will be deemed to be ce thereof.		
	Carried Forward	R	
Section N Bill No. 1 Earthworl PUR 560	KS		

ĺ	Brought Forward		R		Ì
	Blasting				ı
	No Guarantee is given or implied that blasting will be allowed, but should this method of removal be necessary and permissible, the contractor shall assume all responsibility and comply with all the conditions laid down in the Government and Local Government regulation and it should allow for current construction work on the neighbouring property.				
	Dump site				l
	Where "remove from" or "spoil" occurs in items it shall include for all loading, offloading and carting away from the site to a suitable dumping site to be found by the contractor and the contractor shall pay all fees, etc in this regard.				
	Carting away of excavated material				1
	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.				
	Imported filling				l
	Descriptions of imported filling material shall be deemed to include loading material onto trucks from borrow pits or suppliers and hauled and deposited onto the site.				
	Bulking				ı
	No allowance has been made in the measurements for bulking and no claims in this regard shall be entertained.				ĺ
	Project specifications				ı
	Refer to the Project Specifications on the Engineer's drawings.				l
	Carried Forward Section No. 2 Bill No. 1 Earthworks PUR 5603/40		R		_

Classes of excavation Classes 3.1.2(b), (d) and (e) will be deemed not to apply to this contract. All excavations will be classified by the Engineer as: Soft and intermediate excavation as soft excavation Hard rock excavations, which will include unweathered boulders exceeding 20m², and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations. Prescribed density tests on filling Prescribed density tests on filling Prescribed density testing is only to be done on written request from Engineer. Provision for normal density tests must be included in the filling or compaction items. Water, etc. The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust Damage to persons or property The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks PUR 5603/40	Brought Forward	R	
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Hard rock excavations, which will include unweathered boulders exceeding 20m², and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations. Prescribed density testing is only to be done on written request from Engineer. Provision for normal density tests must be included in the filling or compaction items. Water. etc. The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust Damage to persons or property The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	to this contract. All excavations will be classified by the		
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Prescribed density testing is only to be done on written request from Engineer. Provision for normal density tests must be included in the filling or compaction items. Water. etc. The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust Damage to persons or property The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	unweathered boulders exceeding 20m³, and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of		
request from Engineer. Provision for normal density tests must be included in the filling or compaction items. Water, etc. The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust Damage to persons or property The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	Prescribed density tests on filling		
The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust Damage to persons or property The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	request from Engineer. Provision for normal density		
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The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	works with a jet or spray from a hose sufficiently to		
to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc. Visit the site Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	Damage to persons or property		
Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs,		
this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained. Carried Forward R Section No. 2 Bill No. 1 Earthworks	Visit the site		
Section No. 2 Bill No. 1 Earthworks	this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be		
Section No. 2 Bill No. 1 Earthworks			
PUR 5603/40	Section No. 2 Bill No. 1 Earthworks	R	
	PUR 5603/40		

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Carried Forward Section No. 2		R	
Bill No. 1 Earthworks			
PUR 5603/40			
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	Brought Forward			R
	SITE CLEARANCE ETC			
	Site clearance			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	12 000	
2	Stripping average 150mm thick layer of top soil and spoil to a dumping site to be located by the contractor.	m3	1 800	
	BULK EXCAVATIONS			
	Tenderers are to allow for accommodation of traffic, flagmen, etc. all in accordance to best practise and health & safety requirements. The facilities are in an existing live working environment and all care shall be taken to ensure that the site and access to the site is kept clear of rubble, safe for the client, subcontractors, etc. and this shall be adhered to for the duration of the project.			
	Bulk excavation not exceeding 2m deep			
3	Cut to spoil (form platform) "material from excavations on site to a dumping site to be located by the contractor."	0	4.500	
		m3	1 500	
4	Cut to stockpile (form platform) within 200m away from the excavated face	m3	450	
5	Excavate for and remove existing 1200 x 1200 x 1500mm deep subsoil drainage manholes including the removal of brickwork, concrete base, manhole frames & covers	No	1	
	Keeping excavations free of water			
6	Keeping excavations free of water.	Item	1.00	
	EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER			
	Carried Forward Section No. 2 Bill No. 1 Earthworks PUR 5603/40			R
	1 31 3000/40			

	Brought Forward			R
	Extra over bulk excavation in earth for excavation in			
7	Hard rock	m3	225	
	FILLING ETC			
	Imported G7 fill layer material in 150mm thick layers compacted to 95% modified AASHTO density.			
8	To form platforms, etc.	m3	2 700	
	Extra over prescribed density tests on filling			
9	"Modified AASHTO Density" test.	No	25	
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 1 Earthworks PUR 5603/40			R
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Item No		Quantity	Rate	Amount
	BILL NO 2			
	FOUNDATIONS (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 2 Foundations PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
<u>Definitions</u>		
The descriptions and units of quantities below are measured generally in terms to suit this project. Where these descriptions and units are in conflict with the payment provisions of SABS 1200, the descriptions and units as measured below shall apply and no claims in this regard shall be entertained. Should the tenderer have any queries, he should clarify same with either the engineer or quantity surveyor prior to submission of tender. Silence on any issue will be deemed to be acceptance thereof.		
Carried Forward Section No. 2 Bill No. 2 Foundations PUR 5603/40	R	_

Blasting No Guarantee is given or implied that blasting will be allowed, but should this method of removal be necessary and permissible, the contractor shall assume all responsibility and comply with all the conditions laid down in the Government and Local Government	
allowed, but should this method of removal be necessary and permissible, the contractor shall assume all responsibility and comply with all the conditions laid	
regulation and it should allow for current construction work on the neighbouring property.	
<u>Dump site</u>	
Where "remove from" or "spoil" occurs in items it shall include for all loading, offloading and carting away from the site to a suitable dumping site to be found by the contractor and the contractor shall pay all fees, etc in this regard.	
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.	
Imported filling	
Descriptions of imported filling material shall be deemed to include loading material onto trucks from borrow pits or suppliers and hauled and deposited onto the site.	
Protection against termites and ants	
The ground under surface beds, trenches & holes, shall be poisoned with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and applied at the rate of not less than 5 litres of solution per square metre, care being taken to apply the solution uniformly over the whole surface. The concentration of the solution shall be in accordance with the manufacturer's instructions and to the approval of the Representative / Agent. The poison and poisoning shall comply with SABS 0124.	
Carried Forward R Section No. 2 Bill No. 2 Foundations PUR 5603/40	

Brought Forward	F	R
Bulking		
No allowance has been made in the measurements for bulking and no claims in this regard shall be entertained.		
Project specifications		
Refer to the Project Specifications on the Engineer's drawings.		
Classes of excavation		
Classes 3.1.2(b), (d) and (e) will be deemed not to apply to this contract. All excavations will be classified by the Engineer as:		
Soft and intermediate excavation as soft excavation		
Hard rock excavations, which will include unweathered boulders exceeding 20m³, and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations.		
Prescribed density tests on filling		
Prescribed density testing is only to be done on written request from Engineer. Provision for normal density tests must be included in the filling or compaction items.		
Carried Forward	F	R
Section No. 2 Bill No. 2 Foundations		
PUR 5603/40		

	Brought Forward			R	
	EXCAVATIONS				
	Excavation in earth not exceeding 2m deep below natural, elevated or reduced ground level for				
1	Trenches	m3	25		
2	Trenches and holes for thickening under surface beds etc	m3	7		
3	Holes	m3	8		
4	Hand excavations	m3	6		
	EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
	Extra over trench and hole excavations in earth for excavation in:				
5	Hard rock	m3	1		
	Extra over all excavations for carting away.				
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	38		
	Risk of collapse of excavations.				
7	Sides of trench and hole excavations not exceeding 1,5m deep.	m2	154		
	Keeping excavations free of water				
8	Keeping excavations free of water.	Item	1.00		
					_
	Section No. 2 Bill No. 2 Foundations PUR 5603/40			R	

	Brought Forward			R	
	FILLING ETC				
	Earth filling obtained from the excavations and/or prescribed stock piles on site, including haulage from stock piles, compacted to 93% Mod AASHTO density.				
9	Trenches, holes, etc.	m3	7		
	Imported G5 fill layer material in 150mm thick layers compacted to 95% modified AASHTO density.				
10	Below ramps, steps, etc.	m3	6		
	Imported sand blinding below surface beds, paving, etc.				
11	To form platforms, etc.	m3	13		
	Compaction of surfaces.				
12	Compaction of ground surfaces under trenches and holes to 90% Mod AASHTO density.	m2	48		
13	Rip up and scarify ground surfaces under floors for a depth of 150mm, breaking down oversize material, including taking up a maximum tolerance of 50mm and adding suitable material where necessary and carting away where necessary and compacting to 95% Mod AASHTO density.	m2	300		
	Prescribed density tests on filling.				
14	"Modified AASHTO Density" test.	No	2		
14	·	140	۷		
	SOIL POISONING				
	Soil insecticide				
15	To bottoms and sides of trenches etc.	m2	192		
16	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m2	300		
	Carried Forward			R	
	Section No. 2 Bill No. 2 Foundations PUR 5603/40				

	Brought Forward			R	
	CONCRETE, FORMWORKAND REINFORCEMENT				
	SUPPLEMENTARY PREAMBLES				
	Refer to the Preambles in the Concrete, Formwork and Reinforcement bills contained in this document				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/20mm concrete				
17	Surface blinding under footings and bases	m3	2		
18	Fill in narrow widths	m3	11		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	20MPa/19mm concrete				
19	Strip footings	m3	11		
	30MPa/19mm concrete				
20	Bases	m3	4		
	TEST CUBES				
21	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional)	No	2		
	REINFORCEMENT (PROVISIONAL)				
	Steel reinforcement to structural concrete work				
22	Steel reinforcing bars in foundations	t	1.74		
	Carried Forward Section No. 2 Bill No. 2 Foundations PUR 5603/40			R	

	Brought Forward			R	
I.	BRICKWORK				
	Brickwork of NFX bricks or equally approved (14 MPa nominal compressive strength) in class II mortar				
23	NFX Class II mortar: One brick walls	m2	29		
	Brickwork reinforcement				
24	150mm Wide reinforcement built in horizontally	m	84		
	MOVEMENT JOINTS ETC.				
	Expansion joints with Jointex between vertical & horizontal concrete and brick surfaces.				
25	20mm Isolation joints not exceeding 300mm high or wide.	m	190		
	SUB-SOIL DRAINAGE FOR LIFT SUMPS & RETAINING WALLS				
	Refer to the Preambles in the Plumbing & Drainage bills contained in this document				
	Excavate for and build stormwater sump with one-brick sides in extra hard burnt stock bricks, finished fair face internally and reinforced with two layers Brickforce at top, on and including 150mm thick reinforced concrete 20 MPa (20mm stone) bottom with Ref No. 311 mesh reinforcement and fitted with grating and frame (elsewhere) cast into and including 150mm reinforced concrete 20 MPa (20mm stone) cover slab, steel trowelled smooth on all exposed surfaces and dished down to grating with clean sharp arrises and angles, the bottom benched up in fine concrete 15 MPa (8mm stone) finished smooth in 1:1 cement plaster around channels				
26	Stormwater sump size internally 1000 x 1000mm and not exceeding 1 m deep to invert, including forming 375mm half round straight main channel.	No	5		
	Carried Forward Section No. 2 Bill No. 2 Foundations PUR 5603/40			R	_

	Brought Forward			R
	Gratings and frames, etc.			
27	450 x 600mm 'Besaans-du Plessis' No. G0234 stormwater grating and frame, having a mass of 99 kg bedded in 1:3 cement mortar.	No	5	
	The following in sub-soil drainage below NGL			
28	Excavation in earth or compacted earth filling not exceeding 2m deep below natural, reduced or made up ground level, for drainage trenches.	m3	25	
29	Clean earth filling from excavations , compacted in layers not exceeding 150 mm thick to 95% modified AASHTO density in backfilling to drainage trenches.	m3	5	
30	Extra over all excavations for carting away of surplus excavated material from site and dump at an approved dumping site found by the contractor.	m3	10	
31	Allow for risk of collapse of sides of excavations for trenches and holes not exceeding 1.5 m deep.	m2	100	
32	19mm Washed broken stone filling in drainage trenches	m3	9	
33	"Kaymat U14 "geotextile fabric wrapped around 160mm diameter pipe, behind retaining walls, broken stone filling (elsewhere), etc.	m2	200	
34	160mm Diameter Upvc perforated drainage geopipes laid in broken stone surround in trenches to falls (excavations and stone elsewhere), including couplings in the running lengths.	m	110	
35	110mm Gully head around and grate product NO. 20150 by DPI incledon or similar approved product.	No	6	
	Extra over geopipe drain pipes, for:			
6	100 mm Geopipe bend	No	8	
7	100 mm Geopipe double junction	No	2	
8	100 mm Geopipe end cap	No	6	
	Carried Forward Section No. 2 Bill No. 2 Foundations PUR 5603/40			R

	Brought Forward			R	
39	100mm Ci Rodding eye	No	8		
	THE FOLLOWING IN ABLUTION DUCTS				
	Refer to the Preambles in the Earthworks bills contained in this document				
	The following in ducts above NGL				
40	Excavation in earth or compacted earth filling not exceeding 2m deep below natural, reduced or made up ground level, for drainage trenches.	m3	2		
41	19mm Washed broken stone filling in ablution ducts	m3	2		
	Carried Forward to Summary of Section No. 2			R	
	Section No. 2 Bill No. 2 Foundations				
	PUR 5603/40				
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Item No		Quantity	Rate	Amount
	BILL NO 3			
	CONCRETE, FORMWORK AND REINFORCEMENT (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement		R	
	PUR 5603/40			

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Protection of works Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Carried Forward Section No. 2 Bill No. 3	R	_
Concrete, Formwork & Reinforcement PUR 5603/40		

	Brought Forward	R
Project specification		
5.1.1 "Only CEM I 42,5 (Portland 42,5 (Portland fly ash cement) of (Portland slag cement) or CEM slag cement) according to SAN (SABS ENV 197-1), may be us consist of more than 20% silice granulated blast furnace slag, be Cement. Should the contractor type of cement, he shall obtain written approval." No industria facilities co-fired with hazard used.	or CEM II/A-S 42,5 II/B-S 42,5 (Portland S 50197-1 ed. The cement may not ous fly ash or 30% elended with the Portland wish to use any other the engineer's prior I waste from industrial	
<u>Tolerance</u>		
Tolerance shall be based on Addescribed on the particular sect		
Cost of tests		
The costs of making, storing and cubes as required under clause G shall include the cost of provinecessary for the purpose, for it submitting reports on the tests testing shall be undertaken by a institution nominated by the conthe architect. (Test cubes are reserved.) Breeze concrete shall consist of furnace ash, free from coal or cone part cement (12:1), the ash which will pass a 16,5mm ring fails to pass a 4,75mm mesh. The screening are to be first mix a mortar and the ash added after incorporated	e 7 "Tests" of SABS 1200 iding cube moulds esting costs and for to the architect. The an independent firm or atractor to the approval of measured separately) f twelve parts clean dry ther foreign matter, to a graded up to particles from a minimum which The finer materials from ted with the cement into	
Section No. 2 Bill No. 3 Concrete, Formwork & Reinford PUR 5603/40	Carried Forward ement	R

Brought Forward	R	
<u>Formwork</u>		
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 reuse		
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.		
Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described		
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer 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"		
Engineer's Specification		
These bills of quantities are to be read in conjunction with the Engineer's specifications - See engineers drawings and project specification attached to this document and/or as specified on the relevant items.		
Carried Forward Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement PUR 5603/40	R	_

Brought Forward			R	
REINFORCED CONCRETE				
20MPa/19mm concrete				
Aprons cast in panels on waterproofing and laid to falls	m3	6		
25MPa/19mm concrete				
Surface beds and thickenings cast in panels on waterproofing	m3	29		
30MPa/19mm concrete				
Slabs including beams, inverted beams.	m3	37		
TEST CUBES				
Allow for preparing a set of three concrete strenght test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional)	No	6		
CONCRETE SUNDRIES				
Finishing top surfaces of concrete smooth with a power float				
Surface beds, etc	m2	220		
Slabs, etc	m2	173		
Finishing top surfaces of concrete smooth with a wood float/steel trowel				
Aprons to falls, etc	m2	80		
Steel float				
Tops of upstand beams, etc.	m2	19		
Carried Forward Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement PUR 5603/40			R	
	REINFORCED CONCRETE 20MPa/19mm concrete Aprons cast in panels on waterproofing and laid to falls 25MPa/19mm concrete Surface beds and thickenings cast in panels on waterproofing 30MPa/19mm concrete Slabs including beams, inverted beams. TEST CUBES Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional) CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a power float Surface beds, etc Slabs, etc Finishing top surfaces of concrete smooth with a wood float/steel trowel Aprons to falls, etc Steel float Tops of upstand beams, etc. Carried Forward Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement	REINFORCED CONCRETE 20MPa/19mm concrete Aprons cast in panels on waterproofing and laid to falls m3 25MPa/19mm concrete Surface beds and thickenings cast in panels on waterproofing m3 30MPa/19mm concrete Slabs including beams, inverted beams. m3 TEST CUBES Allow for preparing a set of three concrete strenght test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional) CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a power float Surface beds, etc m2 Finishing top surfaces of concrete smooth with a wood float/steel trowel Aprons to falls, etc m2 Steel float Tops of upstand beams, etc. m2 Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement	REINFORCED CONCRETE 20MPa/19mm concrete Aprons cast in panels on waterproofing and laid to falls m3 6 25MPa/19mm concrete Surface beds and thickenings cast in panels on waterproofing m3 29 30MPa/19mm concrete Slabs including beams, inverted beams. m3 37 TEST CUBES Allow for preparing a set of three concrete strenght test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional) No 6 CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a power float Surface beds, etc m2 220 Slabs, etc m2 173 Finishing top surfaces of concrete smooth with a wood float/steel trowel Aprons to falls, etc m2 80 Steel float Tops of upstand beams, etc. m2 19 Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement	REINFORCED CONCRETE 20MPa/19mm concrete Aprons cast in panels on waterproofing and laid to falls m3 6 25MPa/19mm concrete Surface beds and thickenings cast in panels on waterproofing m3 29 30MPa/19mm concrete Slabs including beams, inverted beams. m3 37 TEST CUBES Allow for preparing a set of three concrete strenght test cubes, each size 150 x 150 x 150mm, sending them to an approved independent testing laboratory for testing and paying all charges in connection therewith. (Provisional) CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a power float Surface beds, etc m2 220 Slabs, etc m2 173 Finishing top surfaces of concrete smooth with a wood float/steel trowel Aprons to falls, etc m2 80 Steel float Tops of upstand beams, etc. m2 19

	Brought Forward			R	
	Extra over the above for finishing top surfaces of concrete with a brush finish.				
9	Ramps, aprons, etc.	m2	80		
	Roof outlets (cast in):				
10	Geberit 359.119.00.1 pluvia roof outlet 9L/S or equally approved	No	4		
11	160mm Vertical outlet cast on concrete	No	4		
12	160mm 45 Degree side outlet cast on concrete	No	4		
	Grooves, channels, mortices, sinkings, etc in concrete				
13	50x50mm V-shaped drip groove to the bottom of concrete slabs including all formwork necessary to form grooves	m	61		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides of aprons				
14	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	80		
	SMOOTH FORMWORK (DEGREE OF ACCURACY II)				
	Smooth formwork not exceeding 3.5m high above bearing level, to:				
15	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	162		
16	Soffits of slabs not exceeding 250mm thick	m2	173		
17	Sides of inverted beams (above concrete)	m2	35		
18	Sides and soffits of beams	m2	35		
	Carried Forward Section No. 2 Bill No. 3 Concrete, Formwork & Reinforcement PUR 5603/40			R	

	Brought Forward			R	
	SUNDRY FORMWORK				
	Boxing in smooth formwork to form:				
19	20 x 20mm Horizontal chamfer at corners.	m	162		
	MOVEMENT JOINTS ETC.				
	Expansion joints with Jointex between vertical concrete and brickwork surfaces.				
20	15mm Joints not exceeding 300mm high or wide.	m	80		
	Saw cut joints				
21	50 x 3mm Saw cut joints in top of concrete	m	48		
22	50 x 3mm Saw cut joints in top of screeds	m	48		
23	1:6 Sand and cement grouting to 3mm wide x 50mm deep saw cut grooves in surface beds.	m	48		
	REINFORCEMENT (PROVISIONAL)				
	Steel reinforcement to structural concrete work				
24	Steel reinforcing bars in structural concrete	t	3.97		
	High tensile steel dowel bars.				
25	16mm Diameter mild steel Y bars on stools to thickenings	t	0.42		
	Fabric reinforcement				
26	Type 193 fabric reinforcement in concrete surface beds, etc.	m2	220		
27	Type 193 fabric reinforcement in concrete surface beds laid to falls, etc.	m2	80		
	Carried Forward to Summary of Section No. 2			R	
	Section No. 2 Bill No. 3				
	Concrete, Formwork & Reinforcement PUR 5603/40				

Item No		Quantity	Rate	Amount	
	BILL NO 5				
	MASONRY (PROVISIONAL)				
	PREAMBLES				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 4 Masonry PUR 5603/40		R		_
	1 013 0000/40				

ĺ	Brought Forward	R	
	The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
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	No claims or costs arising out of not adhering to the above will be entertained.		
	SUPPLEMENTARY PREAMBLES		
	Protection of works		
	Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
	<u>Joints</u>		
	A 10mm clean joint must be left between the top surfaces of internal brick walls and the soffits of concrete slabs. Care must be taken to assure that no mortar, pieces of brick or any other objects exist in the joint		
	Carried Forward	R	_
	Section No. 2 Bill No. 4 Masonry PUR 5603/40		
	. 5.1. 5555/46		

	Brought Forward	R	
Wire T	<u>lies</u>		
Descri wire tie	ptions of brickwork shall be deemed to include es		
Face b	<u>orickwork</u>		
size ar	shall be ordered timeously to obtain uniformity in a colour. Descriptions of face brickwork shall be ad to include pointing on all exposed surfaces.		
Sampl	<u>les</u>		
walls o minimu used ir	es of all masonry building units, except those for described as "load bearing", shall consist of a sum of 6 units. Samples of building units to be n walls described as "load bearing" shall consist of ts from every 30 000 units delivered to site.		
Storag	ge of materials on site		
unload areas and in shall b	ural units delivered to the site shall be carefully led by hand or crane, and placed on prepared free from clinker, ash or sulphate-bearing soils separate stacks according to strength. The stacks e protected from rain and arranged to allow free tion of air.		
weathe	nt shall be stored off the ground in a dry erproof structure to facilitate inspection and to the use of materials in the order of delivery.		
	shall be stored separately according to type and in way that it will not become contaminated.		
Treatn	nent of masonry units		
exceed	clay units with an initial water absorption rate that ds 1,8 kg/m2 min shall be wetted prior to laying to the rate to between 0,7 and 1,8 kg/m2 min.		
Section Bill No Mason		R	_
	603/40		

Brought Forward
ning of facebrick
cleaning of all face brick to be done with sugar soap. demove surface contaminants using sugar soap clution - 500 g sugar soap powder dissolved in 5 litres rater, or sugar soap liquid. All in strict accordance to communication and to be done only with non- communication broad to be done only with non- communication and to be done only with non- communication broad to be done only with n
<u>lortar</u>
the mortar materials shall be mixed dry until a uniform colour is attained. Water shall then be added and the nixture turned over until the ingredients are thoroughly incorporated. The mortar shall be produced in such uantities that no setting occurs before use. (Usually ess than 2 hours). When cement mortar is mixed old nortar that has already set shall be removed from the nixer or the platform as such mortar may not be incorporated in a new batch. No water shall be deded afterwards to improve workability.
ccuracy in building
nless specified otherwise accuracy grade II shall apply s set out in SANS 10155.
Carried Forward R ection No. 2 ill No. 4 lasonry UR 5603/40
JK 0000/40

	Brought Forward			R		
	SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) perforated plaster brick size 222x73x106mm in class II mortar manufactured in accordance with SANS 227:2007					
1	NFX Class II mortar: Half brick walls	m2	151			
2	NFX Class II mortar: Half brick walls in forming shower steps	m2	1			
3	NFX Class II mortar: One brick walls	m2	336			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement					
4	75mm Wide reinforcement built in horizontally	m	445			
5	150mm Wide reinforcement built in horizontally	m	988			
	Turning pieces to lintels, etc.					
6	230mm Wide turning pieces	m	52			
	PRECAST CONCRETE					
	Prestressed fabricated concrete lintels including necessary temporary supports					
7	110 x 75mm Lintels in lengths not exceeding 3m	m	98			
	SUNDRY STEELWORK					
	SUNDRY GALVANIZED STEELWORK					
						_
	Carried Forward Section No. 2			R		
	Bill No. 4					
	Masonry PUR 5603/40					
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	Brought Forward			R	
	Bearers to brick linings, lintels, etc				
	Angle corrosion specification:				
	Hot dipped galvanised in accordance to SABS 763 (latest edition) in stock lengths cut to suit on site and "cold galvanise" cut ends with "Zincfix" or similar approved				
8	Two 90 x 90 x 6mm back to back angles to brick openings in forming lintels	kg	1 394		
	FACE BRICKWORK				
	'Corobrik' 26-40mpa Face Brick Size 222x73x106mm (PC Amount R5/brick), Manufactured In Accordance With Sans 227:2007, Bedded And Jointed In Class I Mortar pointed with flush horizontal and vertical joints, Suitable For Exposure Zones 1-2				
9	Extra over brickwork for face brickwork	m2	176		
10	Extra over brickwork for brick-on-edge header course lintel.	m	52		
11	230mm Wide sill set sloping and slightly projecting	m	48		
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 4 Masonry PUR 5603/40			R	

Item No		Quantity	Rate	Amount
	BILL NO 6			
	WATERPROOFING (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 5 Waterproofing PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
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3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
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		
Carried Forward	R	
Section No. 2 Bill No. 5 Waterproofing PUR 5603/40		

Br	ought Forward	R
Protection of works		
Please note that all existing works, finished be protected to the satisfaction of the principle and that tenderers should allow in their ratiprotection.	cipal agent	
DAMP-PROOFING OF WALLS AND	FLOORS	
Waterproofing to roofs shall be laid to evel outlets, etc., with necessary ridges, hips a		
Descriptions of sheet or membrane waterp be deemed to include labour to turn-ups a		
Guarantee		
Waterproofing of roofs, basements, etc. shunder a ten year guarantee. Waterproofing be laid to even falls to outlets, etc, with ne ridges, hips and valleys. Descriptions of shumembrane waterproofing shall be deemed additional labour to turn-ups and turn-dow	g to roofs shall cessary neet or l to include	
Joint sealants		
The colour of joint sealants in brickwork or shall match the colour of the adjacent brick finish		
Section No. 2 Bill No. 5 Waterproofing PUR 5603/40	arried Forward	R

	Brought Forward			R	
	DAMPPROOFING OF WALLS AND FLOORS				
	One layer of 375 micron "Gundle Plastall Brikgrip DPC" embossed damp proof course				
1	Under one brick walls	m2	49		
2	Under half brick walls	m2	6		
3	Under window sills (dpc to be turned up at the end and folded back to stick)	m2	22		
	One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape".				
4	Under surface beds	m2	220		
5	Under aprons	m2	80		
	WATERPROOFING TO ROOFS, BASEMENTS, RETAINING WALLS, ETC.				
	Design, supply and install 4mm "Mapei Polyglass Evolight" or similar approved product over & including 3mm "Mapei Polyglass Evolight" or similar approved product, laid staggered with side laps of 300mm high and end laps of 300mm wide or deep, fully sealed together by torch on fusion including primer to screeds or plaster or concrete or bare NFX brickwork, all in accordance with Manufacturers instructions.				
	Roofs				
6	On roofs to falls at minimum 1:100	m2	173		
7	Extra over additional membrane at 100mm diameter outlet	No	4		
	Carried Forward Section No. 2 Bill No. 5 Waterproofing PUR 5603/40			R	

	Brought Forward			R	
1	One layer Geotextile: "Kaytech" Bidim A3 or equally approved product with 100mm laps on waterproofing				
	Roofs				
8	On roofs to falls at minimum 1:100	m2	173		
9	Extra over membrane against a 100mm diameter outlet	No	4		
	25mm crushed stone ballast 50mm thick				
	Roofs				
10	On roofs to falls at minimum 1:100	m2	173		
	WATERPROOFING TO SHOWERS				
	Design, supply and install "ABE Cementitious flexible waterproofing slurry" lanko Hydroflex embedded or equally approved, in a polyester cloth where necessary				
11	On Shower floors	m2	6		
12	On Shower walls	m2	56		
	JOINT SEALANTS ETC.				
	"Polyurethane" Sealant UV protected to manufacturers specification.				
13	15mm "Polyurethane" Sealant in vertical wall joints between door frame and plastered surfaces (painted).	m	192		
14	15mm "Polyurethane" Sealant around sanitary fittings (painted).	m	25		
15	20mm "Polyurethane" Sealant in horizontal wall joints (painted).	m	348		
	Carried Forward Section No. 2 Bill No. 5 Waterproofing PUR 5603/40			R	
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	Brought Forward			R	
16	20mm "Polyurethane" Sealant on top of skirtings (painted).	m	15		
	"Malthoid" seal including primer, etc. or equally acceptable				
17	Supply & install 2 layers of Malthoid x 115mm wide in expansion joints between brickwork and concrete soffits including raking out expansion joint filler as necessary	m	54		
18	Supply & Install 2 layers of Malthoid x 230mm wide in expansion joints between brickwork and concrete soffits including raking out expansion joint filler as necessary	m	16		
	Carried Forward to Summary of Section No. 2 Section No. 2			R	_
	Bill No. 5 Waterproofing PUR 5603/40				

Item No		Quantity	Rate	Amount	
	BILL NO 7				
	ROOF COVERINGS, ETC (PROVISIONAL)				
	PREAMBLES				
	The Model Preambles for Trades (2008 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				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 6		R		
	Roof Covering PUR 5603/40				

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
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No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
Guarantee		
A written and approved five-year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions. Manufacturer: Global Roofing Solutions Tel. (011) 898-2900		
Cleaning of finishes		
All finishes shall be thoroughly cleaned down on completion. No additional costs for cleaning will be entertained		
Carried Forward	R	
Section No. 2 Bill No. 6 Roof Covering PUR 5603/40		

Brought Forward	R	
Cutting & wastage		
All straight and raking cutting and waste must be allowed for in the rates		
PROFILE SHEETING AND ACCESSORIES		
Sheeting:		
Global Roofing Solutions 0.58mm thick 700mm cover Klip-Tite™ profile Chromadek® Z200 spelter ISQ550 Dark Dolphin finish top coat and Pebble Grey backing coat roof sheeting, fixed to timber intermediate purlins at MAX 1200mm centres and eaves and ridge purlins at MAX 1200mm centres using KL700 plus clips fixed with 10 No.11 x 45mm long self drilling wafer head PH2 screws, type 17 drill point fasteners, all in accordance with the manufacturer's specifications.		
Side Cladding:		
Side cladding shall be Brownbuilt IBR 890 (supaclad) profile from certified galvanised 0.58mm zincalume® 0.47mm steel. A certificate verifying compliance shall be issued by the manufacturer, global roofing solutions. The profile shall have 6 trapezoidal ribs at 178mm centres giving a net cover of 890mm with each pan incorporating a stiffener rib. The rib height shall be 37mm IBR 890 (supaclad)		
0.6mm Thick flashings:		
Flashings shall be 0.6mm GRS Kliplock side wall and counter flashings to detail		
Erection:		
Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced.		
Carried Forward Section No. 2 Bill No. 6 Roof Covering PUR 5603/40	R	

Brought Forward	R	
Safety:		
The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.		
Handling and storing:		
The contractor shall ensure that all materials used on site for cladding, etc. are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.		
Section No. 2 Bill No. 6 Roof Covering	R	
PUR 5603/40		

	Brought Forward			R	
	ROOFING				
	0.58mm Thick GRS Klip-Tite profile roll-formed in continuous lengths and as described on the profile sheeting and accessories, in strict accordance with manufacturer's specifications including all necessary sealer strips on overlaps, etc. by a GRS Approved Contractor.				
1	Roof covering with pitch exceeding 25 degrees	m2	113		
	INSULATION				
2	60mm Thick iso-board to be laid on new roof construction, below roof sheeting, etc., installation in strict accordance to manufacturers specifications and guidelines. Make good in all trades.	m2	113		
	Gutters				
	BUDGETORY ALLOWANCE				
3	Allow the sum of R20,000.00 for the supply & installation of gutters to be detailed by the architect at a later stage	Item	0.80	20 000.00	16 000.00
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 6 Roof Covering PUR 5603/40			R	

Item No		Quantity	Rate	Amount
	BILL NO 8			
	CARPENTRY AND JOINERY (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 7 Carpentry & Joinery PUR 5603/40		R	
	F UIX 3003/40			

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Particle board		
Particle board shall comply with the following specifications:		
a) SABS 1300 Particle board: exterior and flooring type		
b) SABS 1301 Particle board: interior type		
<u>Joinery</u>		
Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc.		
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes		
Carried Forward	R	_
Section No. 2 Bill No. 7 Carpentry & Joinery PUR 5603/40		

Brought Forward	F	
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Fixing:		
Items described as nailed or plugged shall be deemed to be fixed to brickwork or concrete. Where the method of fixing is not described, descriptions shall be deemed to include fixing of timber to timber in a method approved by the architect. Descriptions of hardwood joinery shall be deemed to include pelleting of holes for bolts		
<u>Doors</u>		
Flush doors with rebated meeting stiles to have hard wood edge strips to meeting stiles not less than 19mm thick		
Hardboard and veneer coverings to doors will be suitable to receive paint or varnish		
All doors to be equivalent to samples to be equivalent to samples to be submitted to the architect for approval		
Section No. 2 Bill No. 7 Carpentry & Joinery PUR 5603/40	R	

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	DOORS, ETC.				
	40mm Thick Semi Solid door with concealed hardwood edges all round, with 3,2mm tempered hardboard covering to both sides hung to steel frame.				
1	40mm Door 0,813 x 2,125m high with and including opening for a 0,300 x 0,400m high ventilation louvre (louvre measured elsewhere)	No	15		
	40mm Thick Solid door with concealed hardwood edges all round, with 3,2mm tempered hardboard covering to both sides hung to steel frame.				
2	40mm Door 0,813 x 2,032m high	No	3		
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 7 Carpentry & Joinery PUR 5603/40			R	

Item No		Quantity	Rate	Amount	
	BILL NO 9				
	CEILINGS & BULKHEADS				
	PREAMBLES				
	The Model Preambles for Trades (2008 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				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 8 Ceilings		R		_
	PUR 5603/40				

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	The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
	 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
	2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
	3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
	No claims or costs arising out of not adhering to the above will be entertained.		
	SUPPLEMENTARY PREAMBLES		
	Proprietary suspended ceilings		
	Hangers, suspension grids, "lay-in" panels, etc. are to be in accordance with the manufacturers' recommendations		
	Electrical light fittings, diffusers, panels, etc. are generally "lay-in" units of the same dimensions as the suspension grid described and allowance must be made in the rates accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)		
	Carried Forward	R	_
	Section No. 2 Bill No. 8 Ceilings PUR 5603/40		

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Flush plastered Rhinoboard suspended ceilings		
Ceilings shall comprise 9.5mm &/or 12mm rhinoboard plasterboard boards screwed to and including screw-up suspension grid consisting of main tees at 1 200mm centres and galvanised steel capped cross tees at 400mm centres and with tape fixed over joints and the whole finished with gypsum plaster trowelled to a smooth polished surface		
The grid shall be suspended by means of galvanised steel L-section hangers at suitable centres, securely shot-pinned or screwed to concrete, steel or wood		
<u>Finish</u>		
Unless otherwise stated, all surfaces shall be skimmed and covered with Gyproc Rhinolite Multi-purpose (Phosphogypsum locally manufactured)		
<u>Fixing</u>		
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete		
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere		
<u>Ceilings</u>		
Unless otherwise described ceilings shall be deemed to be horizontal		
Bulkheads		
Bulkheads are those areas of the ceilings which occur at a level or plane differing from the general ceiling level or plane. Their function is to conceal services, or merely to create an architectural feature.		
Section No. 2 Bill No. 8 Ceilings PUR 5603/40	R	

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	Bulkheads will only be measured as such when they conform with the above description and when the horizontal or vertical dimensions do not exceed 2 000mm. Where these dimensions exceed 2 000mm the horizontal or vertical ceilings are included in the general ceiling measurements.				
	Unless otherwise described bulkheads shall be deemed to be horizontal along the length				
	<u>Openings</u>				
	Prices for openings for light fittings, ventilation grilles, air conditioning diffusers, etc. are to include for any necessary additional support, trimming around, etc.				
	<u>NOTES</u>				
	Tenderers are to allow for special scaffolding in their rates as no additional claim will be entertained in this regard				
	Drawings showing the services in the ceiling voids are available for inspection by appointment at the offices of the various consultants				
	The contractor is to ensure that no tees and cross tees are suspended from any services such as electrical cable trays, etc.				
	The contractor must supply the architect with suspended rods for approval before installation				
	Prices shall include for all holes, notching, etc.				
	All tenderers must make allowance within the rates for any sub-frames that might be required in the design, as no additional claims in this regard will be entertained				
	Carried Forward Section No. 2 Bill No. 8 Ceilings PUR 5603/40		R		
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	SUSPENDED CEILINGS				
	6,4mm gypsum ceiling boards (SANS 266) with square edge fixed at right angles to brandering, fixed print side up with 32mm galvanised clout or semi-clout nails at 150mm centres to 38x 38mm sa pine brandering at 300mm centres in one direction, use longest board lengths possible. All joints to be covered with tape fixed over joints (double over butt joints) and then plastered with 3mm to 6mm thick gypsum skim plaster. All in strict accordance with manufacturers specifications.				
1	Ceilings suspend not exceeding 1m below timber trusses	m2	180		
2	Extra over ceilings for 600mm x 600mm trapdoor	No	4		
3	Extra over ceiling for opening for 165mm diameter downlighter	No	20		
4	Opening for sprinkler head	No	10		
5	30mm White shadowline cornice installed as per manufacturer's specifications and recommendations.	m	183		
	12.5mm "Gyproc" Moisture resistant flush plasterboard ceiling fixed on hot dipped galvanised steel suspension fittings, screw-up tee grid including 25x25mm hangers, 25mm rhino board sharp point screws @ 150mm centres, etc., with self adhesive glass fire tape & quick setting joint filler and the whole finished with 3mm to 6mm lightweight retarded semi hydrate gypsum "Rhinolite" plaster trowelled to a smooth polished surface				
6	Ceilings suspend not exceeding 1m below timber trusses	m2	30		
	Carried Forward Section No. 2 Bill No. 8 Ceilings PUR 5603/40			R	

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	OWAconstruct shadow line W-Trim, plugged and screwed at centres not exceeding 200mm				
	INSULATION				
7	135mm thick "Aerolite" fibre glass blanket to be laid on new and existing ceilings, installation in strict accordance to manufacturers specifications and guidelines. Make good in all trades. m2	180			
	Carried Forward to Summary of Section No. 2		R		
	Section No. 2 Bill No. 8 Ceilings PUR 5603/40				

Item No		Quantity	Rate	Amount
	BILL NO. 10			
	ELECTRICAL WORKS			
	PREAMBLES			
	The Model Preambles for Trades (2008 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			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 9 Electrical Works PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
 Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract. 		
No claims or costs arising out of not adhering to the above will be entertained.		
Carried Forward Section No. 2 Bill No. 9 Electrical Works PUR 5603/40	R	

	Brought Forward			R	
	CASH DISCOUNT				
	The following provisional amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional amount other than the priced value for profit and attendance as provided for. The provisional amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion				
	PROVISIONAL SUMS AND PRIME COST AMOUNTS				
	These provisional amounts contain materials to be supplied only or to be supplied and installed by specialists, or work to be executed by specialists or other persons who are selected by the contractor in consultation with the architect. Selected sub-contractors shall receive no other rights or privileges other than the rights and privileges enjoyed by any domestic sub contractor				
	<u>General</u>				
	Allowances below are for design, supply and installation, including input from an approved structural steel contractor, the detail of which will be required by the structural engineer.				
	Tenderers must take note that the following allowances shall be separately tendered to a suitable design and supply subcontractor should the tenderer not be qualified to take on such specialised work				
	ELECTRICAL INSTALLATION				
1	Allow the sum of R 300,000.00 for Electrical Installation.	Item	1.00	300 000.00	300 000.00
2	Profit and attendance on last if required.	Item	1.00		
	ACCESS CONTROL				
3	Allow the sum of R 200,000.00 for Access Control Installation.	Item	1.00	200 000.00	200 000.00
	Carried Forward Section No. 2 Bill No. 9			R	
	Electrical Works PUR 5603/40				

	Brought Forward		R	
4	Profit and attendance on last if required. Item	1.00		
	Carried Forward to Summary of Section No. 2		R	
	Section No. 2 Bill No. 9 Electrical Works PUR 5603/40			_

Item No		Quantity	Rate	Amount	
	BILL NO 11				
	IRONMONGERY (PROVISIONAL)				
	PREAMBLES				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 10 Ironmongery PUR 5603/40		R		_

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	The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
	 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
	2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
	3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
	No claims or costs arising out of not adhering to the above will be entertained.		
	SUPPLEMENTARY PREAMBLES		
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
	Protection of works		
	Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
	Carried Forward	R	
	Section No. 2 Bill No. 10 Ironmongery PUR 5603/40		

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Finis	shes to ironmongery		
by si Satir Satir enar AG	ere applicable finishes to ironmongery are indicated suffixes in accordance with the following list: BS in bronze lacquered: CH Chromium plated: SC in chromium plated: SE Silver enamelled: GE Grey melled: AS Anodised silver: AB Anodised bronze: Anodised gold: ABL Anodised black: PB Polished is: PL Polished and lacquered: PT Epoxy coated.		
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	Brought Forward			R	
	HINGES, BOLTS, DOOR STOPS, ETC.				
	Approved hinges, bolts, etc.				
1	1 pair of "Dorma" stainless steel two ball bearing butt hinge (code: DBB-SS-009).	No	18		
2	6 pairs of "Dorma" stainless steel two ball bearing butt hinge (code: DBB-SS-009).	No	1		
3	"Dorma" DDS-SS-017 stainless steel door stop.	No	20		
4	Ref PHA3/S DD three point locking panic bar for double door 1000 x 2270mm high (2101.2104.2104.2201.PHX02.PHX04)	No	1		
	LOCKS, HANDLES, ETC.				
	Approved locks:				
5	"Assa abloy waterbok" handle on 150 x 45mm pressed backplate with anodised silver finish (code: AL6W45-05AS) including euro profile cylinder upright lock case (code: L-22315-76SS) and 66mm euro profile double cylinder (code: 2X18SC) or equally approved handle (PC Amount R1000/no)	No	18		
	LETTERS, NAMEPLATES, ETC.				
	Approved letters, name plates, etc:				
6	"Dorma" engraved grade 304 stainless steel information sign (code: DSS 130), size 150 x 150 x 1,2mm with "MALE/FEMALE" engraving with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	5		
7	"Dorma" engraved grade 304 stainless steel information sign (code: DSS 131), size 150 x 150 x 1,2mm with "FEMALE" engraving with counter-sunk fixing holes				
	plugged and screwed with aluminium screws.	No	5		
	Carried Forward Section No. 2 Bill No. 10			R	
	Ironmongery PUR 5603/40				
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8	"Dorma" engraved grade 304 stainless steel information sign (code: DSS 131), size 150 x 150 x 1,2mm with "MALE" engraving with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	5			
9	"Dorma" engraved grade 304 stainless steel information sign (code: DSS 131), size 150 x 150 x 1,2mm with "OFFICE" engraving with counter-sunk fixing holes plugged and screwed with aluminium screws.	No				
10	"Dorma" engraved grade 304 stainless steel information sign (code: DSS 131), size 150 x 150 x 1,2mm with "STORE" engraving with counter-sunk fixing holes plugged and screwed with aluminium screws.	No	10			
	BATHROOM ACCESSORIES					
	Manufactured by approved manufacturer:					
11	Halcast steel 366S-SC thief proof toilet roll holder with satin chrome finish or similar approved by architect.	No	9			
12	Servest hygiene ocean femmé sanitary bin (code: disbinns-005), overall size 180 x 520 x 345mm deep, plugged and screwed to wall with stainless steel screws. Including service agreement and wall-mounted sanitary bag dispenser or similar approved by architect.	No	7			
13	Franke rodan rodx 619 0,8mm thick satin finished stainless steel soap dispenser (code: 359981), size 200 x 140 x 85mm deep with 1 litre capacity front push button and franke standard key, plugged and screwed to the wall with stainless steel screws or similar approved by architect.					
		No	6			
14	Franke hf2400 hd 1,2/1,5mm thick grade 304 18/10 stainless steel automatic hands free hand dryer (code: 359961), size 284 x 202 x 248mm deep with 2 vandal proof lock screws and key wrench, plugged and screwed to the wall with stainless steel screws, 200 w motor connected to 230/240 volt power supply. With 5 year warranty. Or similar approved by architect.	No				
		No	6			
	Carried Forward			R		_
	Section No. 2 Bill No. 10 Ironmongery PUR 5603/40					
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15	Franke rodan rodx 605 0,8mm thick satin finished stainless steel waste bin (code: 359983), size 460 x 355 x 170mm deep with capacity of 23 litres and cylinder lock and standard franke key, plugged and screwed to the wall with stainless steel screws. Or similar approved by architect.				
	<i>2</i> ,	No	4		
	Grab Rails				
16	Bathroom butler® paraplegic cistern grab rail (code: grcs02b) with brushed grade 304 stainless steel finish, overall size 791 x 92 x 227mm deep, plugged and screwed to wall with stainless steel screws Or similar approved by architect.				
	approved by electroses.	No	2		
17	Bathroom butler® paraplegic dog leg grab rail with 2 supports (code: grdg02b) with brushed grade 304 stainless steel finish, overall size 604 x 604 x 106mm deep, plugged and screwed to wall with stainless steel screws Or similar approved by architect.				
	Solution of Similar Spp. Solution Spp. Solut	No	2		
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 10 Ironmongery PUR 5603/40			R	

Item No		Quantity	Rate	Amount
	BILL NO 12			
	STRUCTURAL STEEL (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 11 Structural Steel PUR 5603/40		R	

Brought Forward		R		
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:				
 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 				
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.				
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.				
No claims or costs arising out of not adhering to the above will be entertained.				
SUPPLEMENTARY PREAMBLES				
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete				
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
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Carried Forward Section No. 2		R		
Bill No. 11 Structural Steel PUR 5603/40				
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1. Material and workmanship		
The steelwork is to be fabricated from mild steel to SABS 1431 Grade 300W. The whole of the fabrication and workmanship generally is to be in strict accordance with SABS 0162-1984 as amended. The material shall be of best quality throughout, free from loose rust or millscale, true to thickness and profile throughout and of the section and mass specified subject to a 2% tolerance for rolling margin. Consideration will be given to any detail variation which the contractor may wish to make with the view to the simplification of either fabrication, delivery or erection. Substitutions must be made at the contractor's own expense. The contractor shall provide Works Test Certificates		
where so required by the Architect/Engineer.		
2. Testing		
The Engineer shall be at liberty to select test pieces from steelwork in the workshop or on the site and to have them tested. The expense of such tests are to be borne by the contractor if the steelwork does not comply with the standards laid down above. A provisional sum is allowed in the bill of quantities for non-destructive testing.		
3. Hold down bolts		
Holding down bolts and other fixing devices which are to be embedded in concrete must be supplied to the principal contractor on request together with the necessary information, identification and templates.		
2mm Mild steel plate templates provided on a scale of one template for every five groups of bolts, suitably marked to ensure easy identification are to be supplied to the principal contractor.		
Any costs incurred by subsequent repositioning of bolts, etc resulting from the contractor having failed to furnish adequate information, identification and templates will be for the contractor's account.		
Carried Forward Section No. 2 Bill No. 11 Structural Steel PUR 5603/40	R	

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4. Welding		
Welding shall be in accordance with SABS 044 "Welding:		
Parts I, II and III"		
Welding shall be carried out in a manner which will prevent any distortion of the weld or the parent section.		
All welds shall have adequate root fusion and shall be free from cracks, porosity or other irregularities and any undercutting shall be made good by the deposition of additional runs of weld metal.		
Any completed welds showing cracks, cavities or other defects shall be cut out and made good at the contractor's own expense.		
Mild steel electrodes shall comply with SABS 455 "Covered electrodes for Manual Arc Welding of Mild Steel and Medium High Tensile Steel".		
5. Bolts		
Bolts shall have well-formed heads forged from the solid. Nuts shall closely fit the bolts so that they can only just be turned by hand and at least one clear thread shall project beyond the nut when fully tightened. All bolts shall have one asher under the nuts and shall be so tightened that the threaded portion does not bear on the members connected.		
Where bolt heads or nuts bear upon bevelled surfaces they shall be provided with tapered washers of 2,3 mm mean thickness to provide a seating square with the axis of the bolt.		
Carried Forward Section No. 2 Bill No. 11 Structural Steel	R	
PUR 5603/40		

Brought Forward	R	
6. Friction grip bolts		
Connections specifying high strength friction grip bolts are to be in strict accordance with SABS 094 "Bolted Friction Grip Joints in Structural Steelwork" and the bolts used are to be in accordance with BS 3139 Part 1: 1959 "General Grade Bolts, High Strength Friction Grip Bolts for Structural Engineering".		
Notwithstanding the above, the following must be rigidly adhered to :		
a) Two-case hardened washers, one flat or bevelled under the head and the other flat or bevelled under the nut shall be used with each bolt.		
b) Contact surfaces shall not be painted and shall be thoroughly cleaned free of dirt, oil, loose scale, burrs and other defects which are liable to reduce friction resista nce between surfaces.		
c) At all times the correct torques shall be applied to the different sizes of bolts.		
7. Erection		
The steelwork generally is to be fabricated in the contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, temporary erection bracing, erect and plumb all steelwork and supply all steel wedges and tacks as required.		
Items may be detailed for delivery "piece small" or the contractor may prefabricate if he is satisfied that suitable arrangements for transport can be made.		
Connections are to be designed for the forces indicated on the drawings or to the maximum capacity of the members.		
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Carried Forward	R	
Section No. 2 Bill No. 11 Structural Steel PUR 5603/40		

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re or cc zii cc da	Cleaning and painting Il structural steel is to be thoroughly degreased to emove all grease or oil and then wire-brushed, scraped as sand-papered to remove all rust, mill-scale or surface contaminations and is to be immediately given one coat not chromate, allowed to dry overnight and given one coat of universal undercoat prior to delivery to site. All amaged paintwork is to be made good on site after rection is complete. (also refer to 12 below)			
<u>9.</u>	Testing of welders			ı
ar wi	enderers must include in their rates for the testing of my welder used on the work who has not been tested ithin a period of six months immediately preceding his apployment on this contract.			
10	D. Further notes			l
	lso refer to the structural steelwork notes indicated on e Engineer's relevant structural drawings.			
11	1. Painting/corrosion protection options			ı
Sı	pecification			ı
۰	All steelwork will be mechanically wire-brushed			ı
pr	All steelwork will receive one coat Plascon Metal imer UC51 and one coat Plascon UC1 undercoat in e workshop			
	After erection on site, all bolts and damaged areas will e patch undercoat			ĺ
	All steelwork will receive a final Plascon Velvaglo namel finishing coat			
				l
Bi St	Carried Forward ection No. 2 II No. 11 tructural Steel UR 5603/40	R		

Brought Forward	R	
CASH DISCOUNT		
The following provisional amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional amount other than the priced value for profit and attendance as provided for. The provisional amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion		
PROVISIONAL SUMS AND PRIME COST AMOUNTS		
These provisional amounts contain materials to be supplied only or to be supplied and installed by specialists, or work to be executed by specialists or other persons who are selected by the contractor in consultation with the architect. Selected sub-contractors shall receive no other rights or privileges other than the rights and privileges enjoyed by any domestic sub contractor		
General		
Allowances below are for design, supply and installation, including input from an approved structural steel contractor, the detail of which will be required by the structural engineer.		
Tenderers must take note that the following allowances shall be separately tendered to a suitable design and supply subcontractor should the tenderer not be qualified to take on such specialised work		
STRUCTURAL STEEL		
GALVANIZED STEELWORK		
Angle corrosion specification:		
Hot dipped galvanised in accordance to SABS 763 (latest edition) in stock lengths cut to suit on site and "cold galvanise" cut ends with "Zincfix" or similar approved		
Carried Forward Section No. 2 Bill No. 11 Structural Steel PUR 5603/40	R	

	Brought Forward		R	
1	Various steel members kg	2 640		
			_	
	Carried Forward to Summary of Section No. 2 Section No. 2		R	F
	Bill No. 11 Structural Steel			
	PUR 5603/40			
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Item No		Quantity	Rate	Amount
	BILL NO 13			
	METALWORK (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 12 Metalwork PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Descriptions:		
Descriptions of bolts shall be deemed to include nuts and washers.		
Carried Forward Section No. 2 Bill No. 12 Metalwork PUR 5603/40	R	
. 3.1. 3330743		

Brought Forward	R	
Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.		
All surfaces of steelwork must be given one coat of approved zinc chromate primer before leaving the works of the manufacturer		
<u>Aluminium Installation</u>		
Rates should include for <u>design</u> , supply and installation, the detail of which must be submitted with this tender to be approved by the Architect.		
All tenderers must take note that all aluminium doors and shopfronts and glass must comply to following standards;		
 AAAMSA SANS 10400 SANS 110137:2011(Ed 4.00) SAMS 10160 SANS 1263-1:2013 (Ed 3.02) 		
NBR part "N" glazing All ironmongery to be approved window/door gear as per Architects specifications where applicable, where not applicable, tenderers are to allow for standard ironmongery		
Tenderers must take note that the following items are only for tender purposes and will be used as basis for the whole project and therefore the quantity & size might change. No claims in this regard will be entertained.		
Shop drawings should be submitted to and approved by the Architect prior to manufacturing		
Final measurements must be taken on site		
Site dimensions are to be checked by the contractor and confirmed before the start of manufacture.		
Carried Forward	R	
Section No. 2 Bill No. 12 Metalwork PUR 5603/40		

ĺ	Brought Forward	R		
	The Tenderer should include for all plant and equipment necessary for placing in position, horizontal carting over roof and hoisting from ground level.			
	Warranties to be supplied as per Manufacturers specifications			
	Stainless steel balustrading			
	Rates should include for design, supply and installation, the detail of which must be submitted with this tender to be approved by the Architect.			
	Tenderers must take note that the following items are only for tender purposes and will be used as basis and therefore the quantity might change. No claims in this regard will be entertained			
	Note: Shop drawings should be submitted to and approved by the Architect			
	All surfaces of steelwork must be given one coat of approved zinc chromate primer before leaving the works of the manufacturer			
	Glazing			
	The thickness of glass panels must meet the requirements of the National Building Regulations and the relevant SABS Codes of Glazing Practice. If any glass types or thicknesses specified in this document does not conform with the above regulations, the tenderer is to note that he has to inform the Quantity Surveyor of such discrepancies at the time of tender as no claims in this regard will be entertained at a later stage			
				_
	Section No. 2 Bill No. 12 Metalwork PUR 5603/40	R		

	Brought Forward			R	
	PRESSED STEEL DOOR FRAMES				
	Durowin single rebated hot dipped galvanised pressed steel door frame 1,6mm thick, suitable for half brick walls as per plan				
1	Frame for door 0,813 x 2,125mm high.	No	15		
	Durowin single rebated hot dipped galvanised pressed steel door frame 1,6mm thick, suitable for one brick walls as per plan				
2	Frame for door 0,813 x 2,032mm high	No	3		
	SUNDRY STEELWORK				
	Full bore cover plates				
3	430 x 300 x 10mm cover plates with radius connection including ABE epoxy fixing	No	4		
	ALUMINIUM SHOPFRONTS, DOORS, ETC.				
	NB! The glazing thickness shall be (toughened safety glass 6.5mm)				
	Design, supply, deliver and erect the following custom made natural anodised aluminium extruded profile shop front (Colour: Natural anodised), complete including sub-frames, hinges, fixing in position, safety glass, etc. and sealing watertight, including ironmongery, fixing to brickwork & concrete all inclusive as per Architect's drawings and/ or approval (Glass Type: 6.5mm thick laminated safety glass)				
4	Shopfront, overall size 6 900mm wide x 850mm high fixed panels (SF1)	No	1		
	NB! The glazing thickness shall be in accordance to the bills of quantities (toughened safety glass 6.5mm)				
	Carried Forward			R	_
	Section No. 2 Bill No. 12 Metalwork PUR 5603/40				

	Brought Forward			R	
	Design, supply, deliver and erect the following custom made natural anodised aluminium extruded profile shop front (Colour: Natural anodised), complete including sub-frames, hinges, fixing in position, safety glass, etc. and sealing watertight, including ironmongery, fixing to brickwork & concrete all inclusive as per Architect's drawings and/ or approval (Glass Type: 6.5mm thick laminated safety glass)				
5	Shopfront, overall size 2 540mm wide x 2 405mm high fixed panels (T9)	No			
	ALUMINIUM WINDOWS				
	NB! The glazing thickness shall be in accordance to the bills of quantities (4mm)				
	Design, supply, deliver and erect the following custom made natural anodised aluminium extruded profile windows (Colour: Natural anodised), complete including sub-frames, hinges, fixing in position, safety glass, etc. and sealing watertight, including ironmongery, fixing to brickwork & concrete all inclusive as per Architect's drawings and/ or approval (Glass Type: 6.5mm thick laminated safety glass)				
6	Window, overall size 600mm wide x 600mm high fixed panels with obscure glazing (T1)	No			
7	Window, overall size 1200mm wide x 900mm high fixed panels (T2)	No	40		
	STEEL LOCKERS, CUPBOARDS ETC.				
	Steel cupboards with Epoxy paint finish				
8	500mm x 1830mm high Lockable 3 door steel cupboard with one adjustable shelve per door as HEDCOR INDUSTRIAL or equally approved fixed to wall including all necessary accessories	No	55		
	Carried Forward			R	
	Section No. 2 Bill No. 12 Metalwork PUR 5603/40				

	Brought Forward		R	
	BUDGETORY ALLOWANCE			
9	Allow the sum of R15,000.00 for Shower screens to be detailed by the architect at a later stage Item	1.00	15 000.00	15 000.00
	Carried Forward to Summary of Section No. 2		R	
	Section No. 2 Bill No. 12 Metalwork PUR 5603/40			

Item No		Quantity	Rate	Amount	
	BILL NO 14				
	PLASTERING (PROVISIONAL)				
	PREAMBLES				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
	SUPPLEMENTARY PREAMBLES				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Openied Famoure				—
	Section No. 2 Bill No. 13 Plastering PUR 5603/40		R		

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Screeds		
Preparation of existing slab		
All laitance on the surface of the slab must be removed completely. Mechanized plant such as scabblers or abrasive blasters must be used.		
After the mechanical cleaning of the slab surface to expose the coarse aggregate, all dust and debris must be removed, and the surface must be thoroughly wetted and kept wet for at least 12 hours before application of the screed.		
Carried Forward Section No. 2 Bill No. 13 Plastering	R	
PUR 5603/40		

Ī	Brought Forward	R	
	Concrete screed		
	Prepare new surface bed and screed & cast new 25-30mm (or thickness as described in the bills of quantities) thick 1 part cement & 3½ part sand, mix by hand or preferably by forced-action mechanical mixer for 3 minutes, use within 45 minutes. Screed to comply to sans 50197-1 type CEM I or CEM II. Lay guide strips of screed mix to establish levels, lay screed in panels as large as possible in one operation without intermediate joints, level surface as finished by wood floats to non-slip finish.		
	The use of an approved plasticizer is recommended to reduce the water content of the mix to the absolute workable minimum.		
	The mix design must be submitted to the engineer and architect for approval.		
	Application of concrete screed		
	Remove all surface water from the slab. Apply a grout to the slab surface which consists of a 1:1 mix of cement and clean fine sand with just enough water to provide the consistency of a slurry.		
	This grout is to be vigorously brushed into the scabbled surface with brooms. On completion of this operation, the surplus grout must be brushed off to leave only a thin coating.		
	The screed must be placed while the grout is still visibly wet.		
	The screed must be laid and compacted in one layer. Care must be taken to obtain the maximum compaction of the concrete screed.		
	Carried Forward Section No. 2 Bill No. 13 Plastering PUR 5603/40	R	

	Brought Forward			R	
ļ	<u>Plaster</u>				
	Cement plaster for 1 coat work on all brickwork shall be composed of 3 parts of sand to 1 part of cement, all measured by volume, and mixed as follows: Cement mortar shall be composed of 3 parts (by volume) of sand and 1 part (by volume) of cement. The material shall be mixed dry until of uniform colour and then water added and the mixture turned over until the ingredients are thoroughly incorporated. Cement mortar shall be produced in such quantities as can be used before commencing to set as no cement mortar that has once commenced to set shall be used in any way. Care shall be taken in mixing cement mortar to remove from the mixing machine or platform any old mortar that has already set as such mortar may not be incorporated into any new batch. Cement Plaster for 2 coats to conform to fine plaster sand modulus of not larger than 1mm. (sans 1090). Wood-trowelled to smooth surface and finish with steel trowel skim finish. Allow time for the drying of surface moisture.				
	SCREEDS				
	Screeds wood floated on concrete				
1	30mm Thick on shower floors laid to falls	m2	6		
2	30mm Thick on floors and landings	m2	196		
3	Average 130 mm thick on roof slabs to falls and currents	m2	173		
4	70 x 70mm Coved screed fillet against walls, window surrounds, etc. wood floated	m	81		
	PLASTER				
	One coat cement plaster on brickwork				
5	External Walls	m2	176		
6	On narrow widths	m2	39		
	Carried Forward Section No. 2 Bill No. 13 Plastering PUR 5603/40			R	

	Brought Forward			R	
7	On internal walls	m2	778		
8	On soffit of slabs	m2	173		
	Carried Forward to Summary of Section No. 2 Section No. 2			R	
	Bill No. 13 Plastering				
	PUR 5603/40				

Item No		Quantity	Rate	Amount
	BILL NO 15			
	TILING (PROVISIONAL)			
	PREAMBLES			
	The Model Preambles for Trades (2008 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			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 14 Tiling PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
<u>Fixing</u>		
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc. shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc. shall be deemed to include 1:3 plaster bedding		
Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from "Tal Professional" range of products as recommended by the manufacturer of the tiles		
Carried Forward	R	
Section No. 2 Bill No. 14 Tilling PUR 5603/40		

Brought Forward	R	
Cleaning of tiles		
Tiling shall be thoroughly cleaned down on completion. No additional costs for cleaning will be entertained		
Availability of tiles		
When pricing tenderers must make sure that there is enough stock available or that enough stock can be obtained timeously of the respective tiles specified		
Cutting of tiles		
All straight, circular and raking cutting and waste must be allowed for in the rates		
Bonding liquid and Keycoats		
All bonding liquids and keycoats must be allowed for in the rates		
Setting out		
Care shall be exercised in setting out the work, the preparation of templets and the checking of the detail drawings. All measurements shall be taken on the site where necessary and the full size setting out of each course shall be done at the yard so as to ensure the proper fitting of each stone		
Before putting any work in hand the contractor is to submit to the architect for his approval details of the manner in which he proposes to set out the slabs and joints in all wall facings, pavings, sills, treads, etc together with samples of grain or pattern matching		
Bedding and jointing		
Slate, marble, granite and other floor paving and wall linings are to be bedded solidly on the mortar thickness described and are to have tightly butt joints unless otherwise stated		
Carried Forward Section No. 2 Bill No. 14 Tiling	R	
PUR 5603/40		

Brought Forward	R	
Where stonework is to be fixed with adhesive, the adhesive is to be suitable for and compatible with the type of stone. The contractor will be liable for any defects to the slate, marble and granite arising from the use of the adhesive		
Carried Forward	R	
Section No. 2 Bill No. 14 Tiling		
PUR 5603/40		

	Brought Forward	1		R	
	FLOOR TILING				
	PC Allowance of R100.00 per m2, excluding VAT, for the site delivered tile material price only, fixed to wood floated 1:4 cement and sand screed with TAL tile adhesive on concrete surface bed, with 3mm joints continuous in both directions grouted with TAL tile grout (colour to match final tile colour) with minimum 5mm expansion joints at perimeter, all structural expansion and construction joints and soft joints at maximum 3m centres internally and at 3m centres externally, in both directions. Tenderers are to include the price as per the PC amount, plus labour, tile cement, grout, mark up, etc				
1	On floors and landings	m2	196		
2	Skirting 100mm high	m	15		
	WALL TILING				
	200 x 200mm white glazed ceramic tiles, fixed to internal wall plaster backing with TAL tile adhesive mixed with TAL bonding liquid in lieu of water with joints continuous in both directions and grouted with TAL industrial epoxy grout (colour: white). Excess grout on the surface to be cleaned with water as work proceeds. Tiles to have minimum PEI class 4 rating, including soft joints at 2m centres.				
3	On walls	m2	116		
	SUNDRIES, DIVIDING STRIPS, ETC.				
4	Dove grey 9x10mm high pvc movement joint, fixed to floors with an approved adhesive.	m	77		
5	10mm high aluminium formable straight edge trim, temporary fixed in position and bedded in tile adhesive while tiles are laid.	m	77		
	Carried Forward to Summary of Section No. 2			R	
	Section No. 2 Bill No. 14 Tiling PUR 5603/40				

Item No		Quantity	Rate	Amount
	BILL NO 16			
	PLUMBING AND DRAINAGE(PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (1999 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 15 Plumbing & Drainage		R	
	PUR 5603/40			

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
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3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
General		
Rates should include for supply and installation, including input from an approved wet services contractor, the detail of which will be required by the mechanical engineer (wet services engineer).		
Tenderers must take note that the following items are only for tender purposes and will be used as basis and therefore the quantity might change. No claims in this regard will be entertained		
Carried Forward Section No. 2 Bill No. 15 Plumbing & Drainage PUR 5603/40	R	

Brought Forward		R		
Internal and external pipework has been measured elsewhere including fittings, traps, waste unions, valves, etc.				
Carried Forward Section No. 2		R		
Bill No. 15 Plumbing & Drainage PUR 5603/40				
	1	1	ı l	

	Brought Forward			R	
	SANITARY FITTINGS				
	Rates for all sanitary fittings are to allow for the supply, deliver and installation of all fittings, inclusive of all sundry materials required for the installation, complete as per sanitary schedules on the drawings (pipework elsewhere measured).				
	Water Closet				
1	Vitreous china semi close coupled suite colour white, comprising 90° outlet open rim pan with matching 9 litre front single flush cistern including lid, fitments and flushpipe elbow and double flap seat. Or similar architect approved.				
		No	8		
2	Vaal sanitaryware pearl paraplegic vitreous china floor mounted paraplegic washdown suite colour white (code: 7300sc) comprising semi close couple 90° outlet open rim washdown pan and matching 9 litre cistern, including lid, fitments and purpose-made chromium plated side flush lever. Or similar approved by architect.	No	1		
	Wash hand basin				
3	Lecico commercial atlas medical basin semi-pedestal colour white, size 410 x 500 x 480mm high fixed with stainless steel screws and washers to plugs in wall and sealed with abe dow corning acetoxy silicone sealant where basin meets wall or similar approved by architect.	No	2		
	Carried Forward Section No. 2 Bill No. 15 Plumbing & Drainage PUR 5603/40			R	_

	Brought Forward			R	
4	Vaal sanitaryware flamingo vitreous china wall mounted basin colour white (code: 7007), size 560 x 405mm with one taphole including integrated overflow and chainstay hole bolted to wall with two 10mm bolts (code: 8448zo) and sealed with silicone sealant where basin meets wall with cobra watertech melia 15mm chrome plated single taphole basin mixer with pop-up waste, mounting kit, angle valves with sliding flanges and flexible inlet hoses (code: me-293), manufactured in accordance with sans 1480:2005 (bs 5412) or similar approved by architect.	No	9		
	Urinal				
5	Vaal sanitaryware 415 x 275 x 315mm flatback white vitreous china wall mounted urinal (code: 705326) including 38mm chromium plated domical grating (code: 8787z0) and chromium plated top inlet spreader (code: 8543z0), flush valve cobra fj6000) and cobra fjt5.5 flush pipe, fixed on and including two hanger brackets (code: 8127z0). Or similar approved by architect.	No	6		
	Sink				
6	Franke trendline model 1800x535 dcb grade 304 18/10 polished stainless steel double centre bowl drop on sink (code: 313852), overall size 1800 x 535mm with two 343 x 410 x 146mm deep bowls, fitted onto cupboard (elsewhere specified) including bottle traps (traps elsewhere specified) with 38mm waste fitting.	No	1		
	BUDGETORY ALLOWANCE				
7	Allow the sum of R20,000.00 for the supply & installation of vanities to be detailed by the architect at a later stage	Item	1.00	20 000.00	20 000.00
8	Allow the sum of R150,000.00 internal pipework to be detailed by the engineer at a later stage	Item	1.00	150 000.00	150 000.00
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 15 Plumbing & Drainage PUR 5603/40			R	

Item No		Quantity	Rate	Amount
	BILL NO 17			
	GLAZING (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (1999 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 2 Bill No. 16 Glazing PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
 Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract. 		
No claims or costs arising out of not adhering to the above will be entertained.		
Carried Forward	R	
Section No. 2 Bill No. 16 Glazing		
PUR 5603/40		

	Brought Forward	Ī		R	
	TOPS, SHELVES, DOORS, MIRRORS, ETC				
	6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete, etc. and or as stated on the below measured items				
1	500 x 900mm mirror, with polished edges, fitted above and centred to hand wash basin. Fitted flush with tiling onto wood-trowelled, plastered wall with manufacturer approved, double-sided adhesive tape. Or similar approved by architect.	No	11		
	Commind Formation to Commission of Continue No. Co.				_
	Carried Forward to Summary of Section No. 2 Section No. 2			R	_
	Bill No. 16 Glazing PUR 5603/40				
	1 311 3300/40				

Item No		Quantity	Rate	Amount	
	BILL NO 18				
	PAINTWORK (PROVISIONAL)				
	PREAMBLES				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 17 Paintwork PUR 5603/40		R		_

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Paint specification		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
Descriptions of paintwork including undercoats shall be deemed to include undercoats as recommended by the manufacturer of the finishing coats		
Carried Forward Section No. 2	R	
Bill No. 17 Paintwork PUR 5603/40		

Brought Forward	R	
Carried Forward Section No. 2	R	
Bill No. 17 Paintwork		
PUR 5603/40		

	Brought Forward			R	
	PAINTWORK, ETC. TO NEW WORK ON:				
	FLOATED PLASTER SURFACES				
	Low-voc matt, solvent-free enamel to interior new cement plaster. Surface to be dry, sound and clean and cured for a minimum of 3 days, with a moisture content measured with a doser hygrometer (or equivalent), of bd 2 scale - 8% or less. Prime with one coat water based plaster primer with an overcoating time of 2 hours and finish with two coats low-voc matt, solvent-free enamel with 2 hours drying time between coats, for a maintenance cycle of 7 year.				
1	Internal walls	m2	778		
2	Internal walls not exceeding 300mm wide	m	168		
	Surface to be dry, sound and clean with a moisture content measured with a doser hygrometer (or equivalent), of bd 2 scale - 8% or less. Prime with one coat water based plaster primer with an overcoating time of 2 hours and finish with two coats low-voc matt, solvent-free pva with 2 hours drying time between coats, for a maintenance cycle of 7 years.				
3	External walls	m2	176		
	PLASTER BOARD SURFACES WITH				
	Carried Forward Section No. 2 Bill No. 17 Paintwork PUR 5603/40			R	_

	Brought Forward			R	
3	Surface to be dry, sound and free of dirt and loose particles. Wipe down with a damp cloth and allow to dry completely. Prime with one coat plaster primer with an overcoating time of 16 hours and finish with two coats low odour premium quality interior velvet sheen coating that is highly washable and stain resistant (colour: brilliant white) with a 2 hours drying time between coats, for a maintenance cycle of 15 years				
4	Internal bulkheads and ceilings	m2	180		
	SMOOTH CONCRETE SURFACES WITH				
	Ensure surfaces are clean, dry and sound. Moisture content not more than 8% measured on a doser hygrometer bd2 scale (or equivalent) before painting. Apply either universal undercoat or professional undercoat to bare and repaired areas. Allow 16 hours to dry or apply multisurface primer to bare and repaired areas. Allow 2 hours to dry. Finish with two coats pure acrylic emulsion sheen paint with 2 hours drying time between coats, for a maintenance cycle of 12 years				
5	Internal concrete soffits	m2	173		
	METAL SURFACES WITH				
	Carried Forward Section No. 2 Bill No. 17 Paintwork PUR 5603/40			R	_

	Brought Forward	I		R	
	Plascon plascothane polyurethane enamel to exterior new mild steel. Surface to be clean and dry. Remove surface contaminants using metalcare aquasolv Degreaser (gr 1) with bristle brush or brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to Iso 8501 - 01:1988 - sa2½ or by hand/mechanical wire Brushing to st3 of the same standard. Allow to dry Completely and prime within 4 hours of cleaning. Prime with one coat epiwash chromate free primer (aw 1255) with an overcoating time of 4 hours and finish with two coats plascothane polyurethane enamel (up) with 2 Hours drying time between coats, for a maintenance cycle of 6 years in a c1 - inland environment. Final paint Specification and colours to be confirmed by client.				
6	Door frames	m2	14		
	Plascon wall & all to interior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with lacquer thinners (ils 1) and coat with woodcare knot seal (pk 2) and apply one coat of plascon woodcare pretreatment (wwp 1), overcoated within 48 hours with a moisture content, measured with a doser hygrometer (or equivalent), of bd 2 scale (a1-a5) < 14% or less. Prime with one coat wood primer (uc 2) with an overcoating time of 16 hours and finish with two coats wall & all (waa) with 2 hours drying time between coats, for a maintenance cycle of 7 years. Final paint colour: Sterling (code: e29-4)				
7	Doors	m2	68		
8	Door surfaces not exceeding 300mm wide	m	112		
	Carried Forward to Summary of Section No. 2 Section No. 2 Bill No. 17 Paintwork PUR 5603/40			R	

Item No		Quantity	Rate	Amount	
	BILL NO 19				
	BUILDER'S WORK IN CONNECTION WITH SERVICES (PROVISIONAL)				
	PREAMBLES				
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.				
	NOTE:				
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.				
	No claims arising out of failure to do so will be entertained.				
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document				
	Carried Forward Section No. 2 Bill No. 18 Builders' work in connection with services		R		_
	PUR 5603/40				

	Brought Forward	R	
	The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
	 Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately. 		
	2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
	3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
	No claims or costs arising out of not adhering to the above will be entertained.		
	SUPPLEMENTARY PREAMBLES		
	Protection of works		
	Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
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	Section No. 2 Bill No. 18 Builders' work in connection with services PUR 5603/40	R	

	Brought Forward			R	ĺ
	SLEEVE PIPES, ETC.				
	Cut horizontal or vertical chase in brickwork and make good, for:				
1	Double electrical conduits	m	180		
	Cut holes for pipes not exceeding 100mm diameter and make good, through the following.				
2	One-brick wall	No	60		
	Cut recess in walls and make good for the following.				
3	Electrical switch or socket outlet in 230mm one brick wall.	No	42		
	Make good chases cut into existing plastered walls including making good at junction of new with existing plaster (forming of chase elsewhere).				
4	Chase cut into one or two coat cement plaster wall finish for double conduit.	m	180		
	Metal lathing/ chicken mesh wire or equally approved				
5	Supply & install 100mm wide metal lathing/ chicken mesh wire fixed to chased walls.	m	180		
					—
	Carried Forward to Summary of Section No. 2 Section No. 2			R	<u>—</u>
	Bill No. 18 Builders' work in connection with services PUR 5603/40				

	SECTION SUMMARY - Building Works			
Bill No		Page No		Amount
1	Earthworks	83		
2	Foundations	93		
3	Concrete, Formwork & Reinforcement	100		
4	Masonry	106		
5	Waterproofing	112		
6	Roof Covering	117		
7	Carpentry & Joinery	121		
8	Ceilings	127		
9	Electrical Works	131		
10	Ironmongery	137		
11	Structural Steel	145		
12	Metalwork	152		
13	Plastering	157		
14	Tiling	162		
15	Plumbing & Drainage	167		
16	Glazing	170		
17	Paintwork	176		
18	Builders' work in connection with services	179		
			_	
	Carried to Final Summary Section No. 2		R	
	PUR 5603/40			
				*

Item No		Quantity	Rate	Amount
	BILL NO 1			
	GENERAL SITE WORKS (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 3 Bill No. 1 General Site Works & Fencing PUR 5603/40		R	

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
2. Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect.		
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
Carried Forward	R	
Section No. 3 Bill No. 1 General Site Works & Fencing PUR 5603/40		

	Brought Forward	R	
Defi	<u>initions</u>		
mea thes payl units this have eng tend	descriptions and units of quantities below are asured generally in terms to suit this project. Where se descriptions and units are in conflict with the ment provisions of SABS 1200, the descriptions and is as measured below shall apply and no claims in regard shall be entertained. Should the tenderer e any queries, he should clarify same with either the ineer or quantity surveyor prior to submission of der. Silence on any issue will be deemed to be eptance thereof.		
Blas	<u>sting</u>		
allov nece all re dow regu	Guarantee is given or implied that blasting will be wed, but should this method of removal be essary and permissible, the contractor shall assume esponsibility and comply with all the conditions laid in in the Government and Local Government ulation and it should allow for current construction k on the neighbouring property.		
<u>Dur</u>	mp site		
inclu the conf	ere "remove from" or "spoil" occurs in items it shall ude for all loading, offloading and carting away from site to a suitable dumping site to be found by the tractor and the contractor shall pay all fees, etc in regard.		
Car	ting away of excavated material		
be o	criptions of carting away of excavated material shall deemed to include loading excavated material onto ks directly from the excavations or, alternatively, a stock piles situated on the building site.		
<u>lmp</u>	orted filling		
to in	ccriptions of imported filling material shall be deemed aclude loading material onto trucks from borrow pits uppliers and hauled and deposited onto the site.		
Bill I	Carried Forward tion No. 3 No. 1 neral Site Works & Fencing	R	
I	R 5603/40		
I		ı l	

Brought Forward	R	
Bulking		
No allowance has been made in the measurements for bulking and no claims in this regard shall be entertained.		
Project specifications		
Refer to the Project Specifications on the Engineer's drawings.		
Classes of excavation		
Classes 3.1.2(b), (d) and (e) will be deemed not to apply to this contract. All excavations will be classified by the Engineer as:		
Soft and intermediate excavation as soft excavation		
Hard rock excavations, which will include unweathered boulders exceeding 20m³, and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations.		
Prescribed density tests on filling		
Prescribed density testing is only to be done on written request from Engineer. Provision for normal dencity tests must be included in the filling or compaction items.		
Water, etc.		
The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust		
Damage to persons or property		
The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc.		
Carried Forward Section No. 3 Bill No. 1 General Site Works & Fencing PUR 5603/40	R	

Brought Forward	R	
Visit the site		
Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained.		
Carried Forward Section No. 3 Bill No. 1 General Site Works & Fencing PUR 5603/40	R	

	Brought Forward			R	
	BOUNDARY SCREEN FENCE				
	ClearVu or equal and approved Category 3 Security Fencing System				
1	Supply and install fencing comprising of steel mesh panels size 3000 x 1500mm high at 3000mm centres, 4mm diameter hot dipped galvanised wire with aperture size 76,2mm x 12.7mm, panels to be reinforced with 4 x 50mm "V" recessed bands including 2 x 75mm 70 degre flanges along sides, posts cast into 600mm deep x 400mm wide 15Mpa concrete base on one side, posts 85 x 45mm tapered, hot dipped galvanised the polymetic 6000 coated, including all single and double bolt comb clamps galvanised then polymetic 6000 coated and antivandal galvanised bolts, the fence to fitted with anti-climb comprising of 100mm high galvanised "shark tooth" type spike rails, bolted to 50mm wide ClearVu mesh flange bent along fence on top, fitted with anti-burrow comprising of 500mm ripper flatwrap at the bottom, all installed according to manufacturer's instructions and specifications, suitable for non-coastal areas	m	328		
2	Single gate size 1000 x 1800mm high overall in two equal leaves, each leaf fitted with similar and equal to the fence ant-climb on top structures and ant-burrow at the bottom structures, including all accessories and installed in accordance with manufacturer's instructions	No	2		
	BUDGETORY ALLOWANCE				
3	Allow the sum of R 300,000.00 for an open grandstand	Item	1.00	300 000.00	300 000.00
	Carried Forward to Summary of Section No. 3 Section No. 3 Bill No. 1 General Site Works & Fencing PUR 5603/40			R	

Item No		Quantity	Rate	Amount
	BILL NO 2			
	SOCCER PITCH AND COMBI COURTS (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects' & Engineers' drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 3 Bill No. 2 Athletics Track PUR 5603/40		R	

Brought Forward	R	
 The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
Protection of works		
Please note that all existing works, finishes, etc. are to be protected to the satisfaction of the principal agent and that tenderers should allow in their rates for such protection.		
<u>Definitions</u>		
The descriptions and units of quantities below are measured generally in terms to suit this project. Where these descriptions and units are in conflict with the payment provisions of SABS 1200, the descriptions and units as measured below shall apply and no claims in this regard shall be entertained. Should the tenderer have any queries, he should clarify same with either the engineer or quantity surveyor prior to submission of tender. Silence on any issue will be deemed to be acceptance thereof.		
Carried Forward	R	_
Section No. 3 Bill No. 2 Athletics Track PUR 5603/40		
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1	Brought Forward	R		Ì
	Blasting			l
	No Guarantee is given or implied that blasting will be allowed, but should this method of removal be necessary and permissible, the contractor shall assume all responsibility and comply with all the conditions laid down in the Government and Local Government regulation and it should allow for current construction work on the neighbouring property.			
	<u>Dump site</u>			l
	Where "remove from" or "spoil" occurs in items it shall include for all loading, offloading and carting away from the site to a suitable dumping site to be found by the contractor and the contractor shall pay all fees, etc in this regard.			
	Carting away of excavated material			ı
	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.			
	Imported filling			ı
	Descriptions of imported filling material shall be deemed to include loading material onto trucks from borrow pits or suppliers and hauled and deposited onto the site.			
	Bulking			ı
	No allowance has been made in the measurements for bulking and no claims in this regard shall be entertained.			ĺ
	Project specifications			ı
	Refer to the Project Specifications on the Engineer's drawings.			l
	Carried Forward Section No. 3 Bill No. 2 Athletics Track PUR 5603/40	R		_

Brought Forward	F	R
Classes of excavation		
Classes 3.1.2(b), (d) and (e) will be deemed not to apply to this contract. All excavations will be classified by the Engineer as:		
Soft and intermediate excavation as soft excavation		
Hard rock excavations, which will include unweathered boulders exceeding 20m³, and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations.		
Prescribed density tests on filling		
Prescribed density testing is only to be done on written request from Engineer. Provision for normal dencity tests must be included in the filling or compaction items.		
Water, etc.		
The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust		
Damage to persons or property		
The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc.		
<u>Visit the site</u>		
Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained.		
Carried Forward Section No. 3	F	R
Bill No. 2 Athletics Track PUR 5603/40		

Brought Forward	R	
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Carried Forward	R	
Section No. 3 Bill No. 2		
Athletics Track PUR 5603/40		

	Brought Forward			R	
l.	GRASSING				
	Filling, etc.				
1	Imported top soil filling supplied by the Contractor, brought onto site and spread and levelled over sportsfield	m3	1 281		
	Grassing with weed free sods approximately 500 x 500 x 75mm thick				
2	Kikuyu grass on sportsfield	m2	8 538		
	<u>Fertilizing</u>				
3	Fertilizing top soil with 8:1:5 fertilizer spread at a rate of 0,25kg/m2 including working evenly into top 150mm depth of soil	m2	8 538		
4	Fertilizing grassed areas with 8:1:5 fertilizer spread at a rate of 0,1 kg/m2 and well irrigated after completion of planting	m2	8 538		
	<u>Maintenance</u>				
5	Maintenance of grassed areas until date of final completion including regularly weeding, mowing and irrigating as necessary	Item	1.00		
	MARKINGS				
	Thick lime slurry applied with a mechanical marker machine on well established and mowed grass surfaces including setting out				
6	Soccer field marking lines 100mm wide	m	207		
7	Soccer field marking lines 100mm wide set out circular	m	25		
	Carried Forward Section No. 3 Bill No. 2 Athletics Track			R	
	PUR 5603/40				

	Brought Forward			R		
	IRONMONGERY					
	Standard sports nets including all fixing ropes, attachments, etc.					
8	Soccer goal post net to fit frame with front size 7520 x 2540mm high and handing over to the Representative/ Agent	No	2			
	METALWORK					
	HOT-DIPPED GALVANISED MILD STEEL					
	NOTE:					
	The following are to be hot-dipped galvanised after fabrication of complete units					
	Two framed and welded hot-dipped double spelter galvanised mild steel removable soccer goal post frames					
9	16mm Diameter rod handle 600mm girth twice bent and welded to framing (In No 12)	kg	14			
10	8mm Diameter rod rope fastening eye bent semi-circular and welded to framing (In No 96)	kg	3			
11	102 x 3.0mm x 7.32kg/m Circular Hollow section framing	kg	220			
12	Extra for mitred and welded angle intersection	No	12			
13	Extra for welded Y-intersection	No	8			
	ATHLETICS TRACK					
	Excavations					
	Excavate in earth not exceeding 2000mm deep below natural, elevated or reduced ground level for					
14	Trenches	m3	3			
	Carried Forward			R		
	Section No. 3 Bill No. 2 Athletics Track PUR 5603/40			K		

	Brought Forward			R	
	<u>Sundries</u>				
15	Extra over all excavations for carting away surplus material from excavations and/or from stockpiles on site to a dumping site to be located by the Contractor	m3	3		
	Filling, etc.				
16	Selected granular material imported from commercial sources in filling around multi purpose court and compacted to 95% modified AASHTO density	m3	284		
17	150mm Layer of selected natural gravel material (G6 to TRH14), imported from commercial sources in filling under athletics track area and compacted to 95% modified AASHTO density	m3	284		
18	Compaction of ground surface under multi purpose court area including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compact to 93% modified AASHTO density	m2	1 890		
	Protection against termites				
19	Poisoning surface of ground or filling under floors, steps, etc. including raking out 75mm deep V-shaped channels against the walls, etc. treating with poison solution, backfilling and ramming	m2	1 890		
	SURFACING OF BITUMINOUS PREMIX CARPET				
	Bituminous premix multi purpose court surfacing				
20	Prime coat	m2	1 890		
21	25mm Thick continuously graded premixed bituminous surfacing	m2	1 890		
22	Final course bitumal slurry seal	m2	1 890		
	Carried Forward to Summary of Section No. 3 Section No. 3 Bill No. 2 Athletics Track PUR 5603/40			R	_

Item No		Quantity	Rate	Amount
	BILL NO 3		ii	
	STORMWATER DRAINAGE, SEWER DRAINAGE AND WATER SUPPLY (PROVISIONAL)			
	PREAMBLES			
	The Tenderer is referred to the relevant clauses in the separate document 'Model Preambles for Trades' (2008 Edition) and the supplementary preambles hereunder.			
	NOTE:			
	This document must be read and familiarised with in conjunction with the Architects drawings as annexed to this document and tenderers must make allowance in their rates for these specifications.			
	No claims arising out of failure to do so will be entertained.			
	These bills are measured based on the Standard System of Measuring Builder's Work 1999 Sixth Edition (Revised). No claims will be entertained for items not covered by the afore mentioned document			
	Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40		R	
	1 010 0000/40			

Brought Forward	R	
The contractor is advised to be in constant communication with the quantity surveyor during the course of the tender process and/or project with regards to the following:		
Tender drawings versus the Tender bills of quantities Should there be a discrepancy between the tender drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
Construction drawings versus the Tender bills of quantities - Should there be a discrepancy between the construction drawings and the bills of quantities, the contractor shall notify the quantity surveyor immediately.		
3. Site Instructions - The quantity surveyor together with the principal agent shall be notified immediately of any site instructions or potential costs in accordance to the contract.		
No claims or costs arising out of not adhering to the above will be entertained.		
SUPPLEMENTARY PREAMBLES		
<u>Definitions</u>		
The descriptions and units of quantities below are measured generally in terms to suit this project. Where these descriptions and units are in conflict with the payment provisions of SABS 1200, the descriptions and units as measured below shall apply and no claims in this regard shall be entertained. Should the tenderer have any queries, he should clarify same with either the engineer or quantity surveyor prior to submission of tender. Silence on any issue will be deemed to be acceptance thereof.		
Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40	R	

Brought Forward	R	
Blasting		
No Guarantee is given or implied that blasting will be allowed, but should this method of removal be necessary and permissible, the contractor shall assume all responsibility and comply with all the conditions laid down in the Government and Local Government regulation and it should allow for current construction work on the neighbouring property.		
<u>Dump site</u>		
Where "remove from" or "spoil" occurs in items it shall include for all loading, offloading and carting away from the site to a suitable dumping site to be found by the contractor and the contractor shall pay all fees, etc in this regard.		
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.		
Imported filling		
Descriptions of imported filling material shall be deemed to include loading material onto trucks from borrow pits or suppliers and hauled and deposited onto the site.		
Bulking		
No allowance has been made in the measurements for bulking and no claims in this regard shall be entertained.		
Project specifications		
Refer to the Project Specifications on the Engineer's drawings.		
Carried Forward Section No. 3	R	
Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40		

Brought Forward		R	
Classes of excavation			
Classes 3.1.2(b), (d) and (e) will be deemed not to apply to this contract. All excavations will be classified by the Engineer as:			
Soft and intermediate excavation as soft excavation			
Hard rock excavations, which will include unweathered boulders exceeding 20m³, and will also include reinforced concrete footing which, in the Engineer's opinion, cannot be removed as part of normal excavations.			
Prescribed density tests on filling			
Prescribed density testing is only to be done on written request from Engineer. Provision for normal density tests must be included in the filling or compaction items.			
Water, etc.			
The Contractor shall allow in his rates for watering the works with a jet or spray from a hose sufficiently to prevent any nuisance from dust			
Damage to persons or property			
The Contractor will be held responsible for any damage to persons or property by virtue of his operations and is responsible for providing all necessary barriers, signs, etc.			
<u>Visit the site</u>			
Tenderers are advised to visit the site before submitting this tender and to acquaint themselves with the nature and extent of the work to be done and value of recoverable materials which are not to be re-used or handed over to the client. Claims due to the fact that the Tenderers have not visited the site shall not be entertained.			
Carried Forward		R	
Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40		K	

	Brought Forward			R	
	SEWER RETICULATION				
	SITE CLEARANCE ETC				
	Work in connection with existing				
1	Search, locate, excavate and cut into existing municipal sewer line and manhole, join, including all necessary fittings, making good, i.e tees, sockets, welding, etc.	No	2		
	EXCAVATION FOR PIPES				
	Excavation in earth not exceeding 2m deep				
2	Trench excavation for pipes not exceeding 1m wide (Pipes measured elsewhere)	m3	72		
	EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
	Extra over bulk excavation in earth for excavation in				
3	Hard rock	m3	4		
	Risk of collapse of excavations.				
4	Sides of trench and hole excavations exceeding 1,5m deep.	m2	150		
	Extra over all excavations for carting away.				
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	72		
	FILLING, ETC.				
	Earth filling imported by the contractor, compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density				
6	Imported class B bedding of continuous mould of selected granular material for bedding pipe barrel	m3	14		
	Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40			R	

	Brought Forward			R	
	Earth filling obtained from the excavations and/or prescribed stock piles on site, including haulage exceeding 100m and not exceeding 200m from perimeter of excavations or stock piles, compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density				
7	Selected fill blanket compacted uniformely with light compaction directly over the pipe	m3	58		
	Compaction of surfaces.				
8	Compaction of ground surfaces under trenches and holes.	m2	48		
	SOIL DRAINAGE				
	HDPE PE 100 pipes including couplings in the running lengths laid on class B bedding (excavation & backfill measured elsewhere)				
9	110mm Diameter pipes laid to falls in earth or earth filling	m	50		
	Extra over HDPE pipes for fittings				
10	160mm to 110mm reducer	No	5		
11	110mm Bend 45 degrees	No	20		
12	110mm Bend 90 degrees	No	25		
13	110mm Channel junction	No	5		
14	110mm Rodding eye junction	No	15		
15	110mm End cap	No	30		
	MANHOLES, ETC				
	Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40			R	

	Brought Forward			R	
	Excavate (including working space), stockpile & maintain for and build sewer manhole with factory made concrete sections and reducer slabs joined with a Bitumen sealing strip or similar approved material and all joints between concrete sections shall be sealed with an approved sticking tape (smith & nephew or similar) on the outside. The factory manufactured sections shall comply with SABS 1294-1981. Excessive excavations shall be filled only after the engineers approval, with class 15/19 concrete or suitable material as directed by the engineer. Concrete pipe bedding shall be laid continuously around all manholes. Manholes to be fitted with heavy duty Type 2A manhole cover and frame (elsewhere) cast into and including 150mm reinforced concrete spacers bedded in 1:6 cement mortar cover slab, step irons, steel trowelled smooth on all exposed surfaces and dished down to grating with clean sharp arrises and angles, the bottom benched up in fine concrete 20 MPa (19mm stone) finished smooth in 1:1 cement plaster around channels				
16	Manholes not exceeding 2m deep to invert	No	1		
	Manhole covers and frames, etc.				
17	560mm Diameter Type 2A manhole cover and frame, having a mass of 176 kg bedded in 1:6 cement mortar.	No	1		
	TESTING				
18	Provide all necessary apparatus, water, etc. for and test the whole of the "NEW" Soil Drainage to the satisfaction of the Representative/Agent and the Local Authority, rectify all defective work free of charge and leave in perfect order	Item	1.00		
	EXTERNAL WATER RETICULATION				
	Work in connection with existing				
19	Search, locate, excavate and cut into existing 125mm main water line, including all necessary fittings, i.e tees, sockets, welding, etc.	No	1		
	Carried Forward			R	
	Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40				

	Brought Forward			R	
	EXCAVATION FOR PIPES				
	Excavation in earth not exceeding 2m deep				
20	Trench excavation by hand for pipes not exceeding 1m wide (Pipes measured elsewhere)	m3	70		
	EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER				
	Extra over bulk excavation in earth for excavation in				
21	Hard rock	m3	3		
	Risk of collapse of excavations.				
22	Sides of trench and hole excavations exceeding 1,5m deep.	m2	150		
	FILLING, ETC.				
	Earth filling imported by the contractor, compacted in layers not exceeding 150mm thick to 93% Mod AASHTO density				
23	Imported class B bedding of continuous mould of selected granular material for bedding pipe barrel	m3	14		
24	Imported selected granular material placed and compacted in uniform layers on both sides of the pipe for bedding cradle	m3	56		
	Compaction of surfaces.				
25	Compaction of ground surfaces under trenches and holes.	m2	47		
	MEDIUM-PRESSURE PIPELINES				
	Supply, lay and bed HDPE pipes, complete with couplings all in accordance to SABS 966:				
26	125mm Diameter	m	50		
	Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40			R	

Extra over items above for:					
125mm to 110mm reducer	No	5			
125mm equal T	No	5			
125mm bend (90°)	No	2			
125mm end caps	No	6			
VALVES, VALVE CHAMBERS, ETC					
Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including Y12 high tensile bars @ 150mm c/c both ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 "Besaans du Plessis Product No. 2170 or similar approved"					
Valve chamber size internally 900 x 900 x 1200mm deep	No	1			
<u>Taps, Valves, etc., including coupling to pipes or fittings</u>					
Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16	No	1			
THRUST BLOCKS, ETC.					
Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc.					
Bend	No	3			
End caps	No	3			
Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40			R		_
	125mm bend (90°) 125mm end caps VALVES, VALVE CHAMBERS, ETC Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including Y12 high tensile bars @ 150mm c/c both ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 "Besaans du Plessis Product No. 2170 or similar approved" Valve chamber size internally 900 x 900 x 1200mm deep Taps, Valves, etc., including coupling to pipes or fittings Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16 THRUST BLOCKS, ETC. Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc. Bend End caps Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply	125mm bend (90°) 125mm end caps No VALVES, VALVE CHAMBERS, ETC Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including Y12 high tensile bars @ 150mm c/c both ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 "Besaans du Plessis Product No. 2170 or similar approved" Valve chamber size internally 900 x 900 x 1200mm deep No Taps, Valves, etc., including coupling to pipes or fittings Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16 No THRUST BLOCKS, ETC. Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc. Bend No End caps Carried Forward Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply	125mm bend (90°) No 2 125mm end caps No 6 VALVES, VALVE CHAMBERS, ETC Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including Y12 high tensile bars @ 150mm c/c both ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 "Besaans du Plessis Product No. 2170 or similar approved" Valve chamber size internally 900 x 900 x 1200mm deep No 1 Taps, Valves, etc., including coupling to pipes or fittings Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16 No 1 THRUST BLOCKS, ETC. Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc. Bend No 3 End caps Carried Forward Section No. 3 Bill No. 3 Sltormwater Drainage, Sewer Drainage and Water Supply	125mm bend (90°) No 2 125mm end caps No 6 VALVES, VALVE CHAMBERS, ETC Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including Y12 high tensile bars @ 150mm c/c both ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 **Besaans du Plessis Product No. 2170 or similar approved** Valve chamber size internally 900 x 900 x 1200mm deep No 1 Taps, Valves, etc., including coupling to pipes or fittings Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16 No 1 THRUST BLOCKS, ETC. Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc. Bend No 3 End caps Research Proward Research Res	125mm bend (90°) 125mm end caps No VALVES, VALVE CHAMBERS, ETC Excavate for and build valve chamber with one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on well compacted earth filling and with 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) bottom and with a 150mm thick reinforced concrete 25 Mpa (19mm stone) cover slab on and including 112 high tensile bars @ 150mm ch 50 bht ways, with and including heavy duty 450 x 600mm cast iron manhole cover and frame according to SABS 558 "Besaans du Plessis Product No. 2170 or similar approved". Valve chamber size internally 900 x 900 x 1200mm deep No 1 Taps, Valves, etc., including coupling to pipes or fittings Type 3A Besaans-du Plessis valve box 450 x 450 x 300mm thick class 20/19 concrete with and including a 50mm diameter 'RSV' gate valve class 16 No 1 THRUST BLOCKS, ETC. Mass concrete class 20 Mpa (19mm stone) in thrust blocks, including any necessary excavations and formwork, etc. Bend No 3 End caps Carried Forward R Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply

	Brought Forward			R	
35	Tee or reducing Tee	No	5		
36	Gate valve	No	5		
	<u>TESTING</u>				
37	Provide all necessary water, etc., for and test this section of the plumbing services, sanitary fittings, pumps, etc., and in stages as deemed necessary, including chlorination, complete to the satisfaction of the architect and the local authority, replace any defective work free of charge, including any necessary re-testing and leave perfect on completion	Item	1.00		
38	Allow for testing and commissioning this section of the plumbing services, sanitary fittings, pumps, etc., including any necessary re-setting, etc., for optimal performance of the entire system to the satisfaction of the architect for the duration of the contract, maintenance and guarantee period	Item	1.00		
	Carried Forward to Summary of Section No. 3 Section No. 3 Bill No. 3 Stormwater Drainage, Sewer Drainage and Water Supply PUR 5603/40			R	=

Bill	SECTION SUMMARY - External Works	Page		Amount	
No		No			
1	General Site Works & Fencing	186			
2	Athletics Track	194			
3	Stormwater Drainage, Sewer Drainage and Water				
	Supply	204			
	Carried to Final Summary		R		
	Section No. 3 PUR 5603/40				

Item No			Quantity	Rate	Amount
	BILL NO 1				
	PROVISIONAL SUMS, ETC				
	SUPPLEMENTARY PREAMBLES				
	CASH DISCOUNT				
	The following provisional amounts are NET and represent the NET COST of the work described. The contractor shall not be entitled to any discount, percentage or allowance whatsoever on the value of any provisional amount other than the priced value for profit and attendance as provided for. The provisional amounts may be deducted in whole or in part from the contract and are subject to adjustment upon completion				
	PROVISIONAL SUMS AND PRIME COST AMOUNTS				
	These provisional amounts contain materials to be supplied only or to be supplied and installed by specialists, or work to be executed by specialists or other persons who are selected by the contractor in consultation with the architect. Selected sub-contractors shall receive no other rights or privileges other than the rights and privileges enjoyed by any domestic sub contractor				
	BUDGETARY ALLOWANCES				
	This work will be priced and measured in accordance with these bills of quantities				
	ENGINEERING PROVISION FOR DESIGN DEVELOPMENT				
1	Allow the sum of R 1,000,000.00 (One Million Rands) for the Engineering Designs & Development.	Item	1.00	1 000 000.00	1 000 000.00
2	Profit and attendance on last if required.	Item	1.00		
	Carried to Final Summary Section No. 4 Bill No. 1 Provisional sums PUR 5603/40			R	

	FINAL SUMMARY			
Section No		Page No		Amount
1	Preliminaries & General	76		
2	Building Works	180		
3	External Works	205		
4	Provisional Sums	206		
	Sub Total		R	
	CONTINGENCIES			
	Allow the sum of R 600,000.00 (Six Hundred Thousand Rands) for Contingencies to be used as instructed by the Principal Agent in terms of the Principal Building Agreement.	1.00		600 000.00
	Sub Total		R	
	Tax @ 15%		R	
	Carried to Form of Tender PUR 5603/40		R	
	1 013 0000140			