

ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 1</u>				
	ALTERATIONS				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	NOTE: Tenderers are advised to study the Lab Specialist and Architectural specification pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained <u>Explosives</u> No explosives whatsoever may be used in demolitions <u>Generally</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc) Unless otherwise stated, the whole of the old materials arising from the alterations shall become the property of the contractor and shall be carted away from the site immediately it becomes available and credit shall be allowed for it In pricing, credits for old materials shall be offset against the charge so as to result in a net figure in the amount column Prices for the demolition of any structure shall include for its demolition complete with all surface finishes such as plaster, screeds, etc all attached items of joinery such as skirtings, etc and all reinforcement, conduit, pipes, lintels, etc built into that portion of the structure			
<b>Carried to Collection</b> Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0		R	



The whole of the demolitions shall be carried out with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their occupants. The site, structures and materials shall be kept well watered during the operations to prevent dust and all temporary tarpaulins, dust and weatherproof screens, barriers and temporary plumbing that may be necessary during the progress of the demolitions, shall be erected and maintained, all to the satisfaction of the architect and the municipal authorities, and removed when directed No claims for extras whatsoever will be entertained and no extension of time will be allowed should the contractor be prohibited by order of the police, the courts or other public bodies from using mechanical equipment, compressors, pneumatic drills or other noisy means of executing the demolitions Provide, erect and remove when directed all incidental shoring, needling, strutting, etc that may be necessary while carrying out any portion of the works to ensure stability of the premises with suitable and substantial timber and other materials. Prices for all items of demolition to form openings shall include for the provision of such support The contractor shall comply with all regulations and bylaws in force in connection with the use of electrical, mechanical and other equipment Allow for watering the works with a jet or spray sufficiently to prevent any nuisance from dust during the alterations or demolitions **Carried to Collection** R Section 5.3: Main Contract Bill No. 1 Alterations **CSIR Future PHARMA Facility, Pretoria** 21511-20-01-0- Main Contractor's BOQ Rev 0



At the commencement of the demolition work the contractor shall give notice to the employer to whose premises any services such as water, telephone, electric power, etc are carried via or supported by the buildings to be demolished and shall ensure that such services are maintained without interruption

The contractor shall remove from the site all drains, pipes, conduits, wire and other obstructions which are encountered in demolishing.

He shall plug and seal all water pipes, drains, pipes or other conduits remaining below ground level and ensure that no electric cables or wires remaining underground are alive.

The contractor shall consult the architect before cutting off the water, fire service and sewerage systems

In taking down and removing existing work the utmost care shall be observed to avoid any structural or other damage to the remaining portions of the building. The contractor shall cover up and protect from injury all work not removed and shall make good at his own expense any damage that may occur

Provide and erect all casings and protection for and cover up all existing fittings, doors, windows, joinery work, walls, floors, etc. not disturbed during the alterations and clear away and make good at completion

The contractor shall collect and cart away all material and debris resulting from the demolitions. At completion of the demolition work the contractor shall leave the site in a thoroughly safe and sanitary condition to the complete satisfaction of the architect and the municipal authorities.

## **Carried to Collection**

Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0 R



	TEMPORARY FLOOR, ETC				
	Temporary floor, etc including removal				
A	Existing steel floor to be cladded complete with approved plywood before specified floor finish can be installed, including corners, ends, etc. Refer to architect's drawing number 2022_CSIR_A.03.1.2	m2	151		
	REMOVAL OF EXISTING WORK				
	Breaking down and removing brickwork etc				
В	Half Brick wall	m2	14		
С	One Brick wall	m2	25		
D	280mm Hollow walls of two half brick skins	m2	9		
	Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
Е	150mm Thick surface beds, etc	m2	29		
F	Cut 150mm surface bed to break out	m	59		
G	Beams	m3	1		
Н	Cut 230mm thick up stand beam to break out	m	5		
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>				
J	Lay-in Ceilings including removing all associated cornice, grid, etc.	m2	395		
К	Cold room ceilings including removing all associated cornice, grid, etc.	m2	15		
L	Drywall partitions 2500mm high, including skirtings, glazed borrowed lights, etc	m	13		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 1				
	Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rey 0				
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A	Cold Room panelling 2500mm high, including skirtings, glazed borrowed lights, etc	m	14		
	Hacking up/off and removing tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes				
В	Tiles fixed to floors	m2	46		
С	Tiles to treads and risers of stairs	m2	2		
	Taking up / off and set aside for re-use external work				
D	Lift up and set aside paving for re-use (Re-fixing in similar new position elsewhere measured)	m2	36		
	<u>Taking out and removing doors, windows, etc including</u> thresholds, sills, etc from partitioning and building opening (elsewhere measured)				
Е	Glazed aluminium window not exceeding 2.5m2	No	3		
F	Glazed aluminium window exceeding 2.5m2 not exceeding 5m2	No	1		
	<u>Taking out and removing doors, windows, etc including</u> <u>thresholds, sills, etc from partitioning and prepare</u> <u>opening for new door, window, etc</u>				
G	Aluminium door and frame exceeding 2.5m2 and not exceeding 5m2	No	5		
	<u>Taking out and removing doors, windows, etc, including</u> thresholds, sills, etc (building up openings and making good finishes elsewhere)				
Н	Cold room door and frame not exceeding 2.5m2	No	1		
J	Timber door and steel frame not exceeding 2.5m2	No	5		
к	Glazed aluminium window not exceeding 2.5m2	No	4		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



А	Glazed aluminium window exceeding 5m2 and not exceeding 7.5m <sup>2</sup>	No	3		
	Taking out and removing roller shutter door including thresholds, sills, etc (building up openings elsewhere)				
В	Roller shutter door 3 000 x 4 500mm high	No	1		
	Carefully taking out and store sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
С	Emergency Eye Drench Shower	No	1		
	<u>Take up and remove wood block floor coverings, vinyl</u> floor coverings, carpeting, etc and prepare screeds for new floor finishes				
D	Carpeted floor covering including removing all associated adhesives, skirtings, coves, etc	m2	54		
E	Vinyl fixed to floors including removing all associated adhesives, skirtings, coves, etc	m2	603		
F	Polyscreed including making floors good to receive new floor finish	m2	15		
	Carefully taking off extractors / ducts				
G	Carefully remove extractors / ducts from existing windows	No	5		
	Taking out/off and removing sundry metalwork				
Н	Steel balustrades from concrete stairs, including making good floor finish	m	20		
	<u>Carefully taking off aluminium louvre and handover to th</u> <u>Client</u>				
J	Carefully take off and remove aluminium louvre with overall size 3 000 x 1 800mm high	No	1		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				



	<b>OPENINGS THROUGH EXISTING WALLS</b>				
	Breaking out for and forming plain openings through brick walls including pre-stressed concrete lintels, making good plaster on both sides and into reveals and with unreinforced concrete thresholds with steel trowelled finish (making good paintwork elsewhere)				
А	Opening 200mm diameter in half brick wall	No	2		
В	Opening 250 x 200mm high in half brick wall	No	4		
С	Opening 250 x 300mm high in half brick wall	No	3		
D	Opening 450mm diameter in one brick wall	No	2		
Е	Opening 560mm diameter in one brick wall	No	2		
F	Opening 630mm diameter in one brick wall	No	1		
G	Opening 250 x 250mm high in one brick wall	No	1		
Н	Opening 300 x 300mm high in one brick wall	No	1		
J	Opening 50mm diameter in cavity brick wall	No	11		
К	Opening 115mm diameter in cavity brick wall	No	1		
L	Opening 150mm diameter in cavity brick wall	No	1		
М	Opening 190mm diameter in cavity brick wall	No	1		
Ν	Opening 450mm diameter in cavity brick wall	No	2		
Ρ	Opening 500mm diameter in cavity brick wall	No	1		
Q	Opening 560mm diameter in cavity brick wall	No	2		
R	Opening 630mm diameter in cavity brick wall	No	1		
S	Opening 250 x 200mm high in cavity brick wall	No	5		
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	Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Opening 300 x 500mm high in cavity brick wall	.			1	1
	No	1			
Opening 400 x 300mm high in cavity brick wall	No	1			
Opening 400 x 450mm high in cavity brick wall	No	1			
Opening 600 x 300mm high in cavity brick wall	No	3			
Opening 600 x 500mm high in cavity brick wall	No	2			
Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)					
Opening 900 x 1 600mm high in one brick wall	No	1			
Opening 900 x 2 100mm high in cavity brick wall	No	2			
Opening 1 600 x 2 100mm high in one brick wall	No	1			
Opening 1 840 x 2 800mm high in one brick wall	No	1			
Breaking out for and forming openings through brick walls for new windows, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with sloping fibre-cement sills on outside and flat fibre-cement sills on inside (new windows and making good paintwork elsewhere)					
Opening 1 200 x 1 000mmm high in cavity brick wall	No	4			
BUILDING UP OPENINGS					
<u>Brickwork in NFP bricks in class II mortar in building up</u> openings					
230mm One brick walls of two half brick skins including wire ties	m2	5			
280mm Hollow walls of two half brick skins including wire ties	m2	57			
Carried to Collection			R		
Section 5.3: Main Contract Bill No. 1 Alterations CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					
	Opening 400 x 450mm high in cavity brick wall         Opening 600 x 300mm high in cavity brick wall         Opening 600 x 500mm high in cavity brick wall         Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)         Opening 900 x 1 600mm high in one brick wall         Opening 900 x 2 100mm high in one brick wall         Opening 1 600 x 2 100mm high in one brick wall         Opening 1 600 x 2 100mm high in one brick wall         Opening 1 600 x 2 100mm high in one brick wall         Opening 1 600 x 2 100mm high in one brick wall         Opening 1 600 x 2 100mm high in one brick wall         Opening 1 840 x 2 800mm high in one brick wall         Breaking out for and forming openings through brick walls for new windows, including pre-stressed concrete lintels, making good paintwork elsewhere)         Opening 1 200 x 1 000mmm high in cavity brick wall         BUILDING UP OPENINGS         Brickwork in NFP bricks in class II mortar in building up openings         230mm One brick walls of two half brick skins including wire ties         280mm Hollow walls of two half brick skins including wire ties         280mm Hollow walls of two half brick skins including wire ties         Carried to Collection         Section 5.3: Main	Opening 400 x 450mm high in cavity brick wall       No         Opening 600 x 300mm high in cavity brick wall       No         Opening 600 x 500mm high in cavity brick wall       No         Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames, and making good paintwork elsewhere)       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Hollow walls of	Opening 400 x 450mm high in cavity brick wall     No     1       Opening 600 x 300mm high in cavity brick wall     No     3       Opening 600 x 500mm high in cavity brick wall     No     2       Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork elsewhere)     No     1       Opening 900 x 1 600mm high in one brick wall     No     1       Opening 1 600 x 2 100mm high in one brick wall     No     1       Opening 1 600 x 2 100mm high in one brick wall     No     1       Opening 1 840 x 2 800mm high in one brick wall     No     1       Breaking out for and forming openings through brick walls for new windows, including pre-stressed concrete lintels, making good cement plaster on both sides and into reveals and with sloping fibre-cement sills on outside and flat fibre-cement sills on outside and flat fibre-cement sills on ioutside and making good paintwork elsewhere)     No     4       BUILDING UP OPENINGS     m2     5       Brickwork in NFP bricks in class II mortar in building up openings     m2     5       280mm Hollow walls of two half brick skins including wire ties     m2     57       Carried to Collection       Section 5.3: Main Contract Bill No. 1 Alterations       Carried to Collection <td>Opening 400 x 450mm high in cavity brick wall     No     1       Opening 600 x 300mm high in cavity brick wall     No     3       Opening 600 x 500mm high in cavity brick wall     No     2       Breaking out for and forming openings through brick walls for new doors and frames. including pre-stressed concrete lintels. making good gement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trovelled finish (new doors and frames and making good paintwork elsewhere)     No     1    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brick wall     No     3       Opening 600 x 500mm high in cavity brick wall     No     2       Breaking out for and forming openings through brick walls for new doors and frames, including pre-stressed concrete linkels, making qood cement plaster on both sides and into reveals and with 20 MPa concrete thresholds with steel trowelled flinkh (new doors and frames and making qood paintwork elsewhere)     No       Opening 900 x 1 600mm high in one brick wall     No     1       Opening 1 600 x 2 100mm high in one brick wall     No     1       Opening 1 800 x 2 100mm high in one brick wall     No     1       Opening 1 800 x 2 100mm high in one brick wall     No     1       Opening 1 800 x 2 100mm high in one brick wall     No     1       Opening 1 800 x 2 100mm high in one brick wall     No     1       Opening 1 800 x 2 100mm high in one brick wall     No     1       Opening 1 200 x 1 000mm high in cavity brick wall     No     1       Opening 1 200 x 1 000mmm high in cavity brick wall     No 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200 x 1 000mmm high in cavity brick wall     No     4       Builching Openings     Imortari in building up openings     5 <td< td=""></td<>



	Sundries				
A	Cutting toothings and bonding new brickwork to existing	m2	8		
	REMEDIAL WORK TO EXISTING WINDOWS				
	Service and permanently seal existing windows				
В	Making good and servicing window with overall size not exceeding 2.5m <sup>2</sup> with panes including fixing broken glazing and members, raking out existing sealant, prepare surface for new sealant and permanently sealing window with approved silicon sealant	No	7		
С	Making good and servicing window with overall size exceeding 2,5m <sup>2</sup> and not exceeding 5m <sup>2</sup> with panes including fixing broken glazing and members, raking out existing sealant, prepare surface for new sealant and permanently sealing window with approved silicon sealant	No	6		
	PREPARATORY WORK TO EXISTING SURFACES				
	Preparing existing internal walls to be re-painted by removing existing wall-mounted equipment, fittings and cladding where applicable and strip off existing paint to base coat where paint is peeling and cracked				
D	Preparing existing walls to be re-painted	m2	1,013		
	MAKING GOOD OF FINISHES ETC				
	Making good internal cement screeds				
Е	Screeds where 110mm brick walls removed	m	7		
F	Screeds where 230mm brick walls removed	m	11		
	Making good cement plaster				
G	Walls where 110mm brick walls removed	m	8		
Н	Walls where 230mm brick walls removed	m	21		
	<b>Carried to Collection</b> Section 5.3: Main Contract Bill No. 1 Alterations <b>CSIR Future PHARMA Facility, Pretoria</b> 21511-20-01-0- Main Contractor's BOQ Rev 0			R	

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<u>Making good vinyl floors, platform finish, etc</u>				
Making good and prepare existing floor to receive new floor finish	m2	151		
Carried to Collection			R	
Section 5.3: Main Contract Bill No.  1 Alterations				
CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 1				
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ltem No		Unit	Quantity	Rate	Amount	
	<u>BILL NO. 2</u>					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	<u>Cement</u>					
	Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement					
	Cost of tests					
	The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect (Test cubes are measured separately)					
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 2 Concrete, Formwork and Reinforcement CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



Descriptions 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

Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described Formwork has been measured to the sides of all reinforced concrete in foundations and will be remeasured according to actual usage. However, 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"

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30MPa/19mm concrete

## A Isolated Beams

# TEST BLOCKS

Test blocks

B Making and testing set of three 150 x 150 x 150mm concrete strength test cubes

## **Carried to Collection**

Section 5.3: Main Contract Bill No. 2 Concrete, Formwork and Reinforcement CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0

m3	1		
No	1		
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	FORMWORK				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
A	Isolated Beams	m2	6		
	Rough formwork to soffits				
В	Isolated beams propped up exceeding 1.5m and not exceeding 3.5m high	m2	1		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work				
с	Various diameter mild steel bars	t	0.03		
	High tensile steel reinforcement to structural concrete work				
D	Various diameter high tensile steel bars	t	0.46		
	High tensile steel dowel bars				
E	20mm Diameter dowel bar 150mm long with both end embedded 75mm deep in existing concrete columns and fixed to new concrete beam as per engineers detail	No	4		
				-	
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 2 Concrete, Formwork and Reinforcement CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill	No. 2				
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	Unit	Quantity	Rate	Amount
<u>BILL NO. 3</u>				
MASONRY				
NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
SUPPLEMENTARY PREAMBLES				
BRICKWORK				
<u>Cement</u>				
Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement				
Sizes in descriptions				
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
Hollow walls, etc				
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating				
Operational day Operations				
			R	
Section 5.3: Main Contract Bill No. 3 Masonry CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				
	MASONRY         NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill         SUPPLEMENTARY PREAMBLES         BRICKWORK         Cement         Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement         Sizes in descriptions         Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick         Hollow walls, etc         Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole         Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1.6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating         Carried to Collection         Section 5.3: Main Contract Bill No. 3 Masonry         Csur provide         Section 5.3: Main Contract Bill No. 3 Masonry	BILL NO. 3         MASONRY         NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill         SUPPLEMENTARY PREAMBLES         BRICKWORK         Cement         Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement         Sizes in descriptions         Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick         Hollow walls, etc         Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole         Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating         Carried to Collection         Section 5.3: Main Contract Bill No. 3         Masonry         Carried to Collection	BILL NO. 3         MASONRY         NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill         SUPPLEMENTARY PREAMBLES         BRICKWORK         Cement         Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement         Sizes in descriptions         Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick         Hollow walls, etc         Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole         Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating         Carried to Collection         Section 5.3: Main Contract Bill No. 3 Masonry CSIR Future PHARMA Facility, Pretoria	BILL NO. 3         MASONRY         NOTE: Tenderers are advised to study the Model         Preambles for Trades before pricing this bill         SUPPLEMENTARY PREAMBLES         BRICKWORK         Cement         Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 82: Stipulated minimum threshold for local production and content for cement         Sizes in descriptions         Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick         Hollow walls, etc         Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the extremal skin open as a weep hole         Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproof coating         Carried to Collection       R         Section 5.3: Main Contract Bill No. 3 Masonry       R



	Face bricks				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	<u>Samples</u>				
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of six units. Samples of building units to be used in walls described as "load bearing" shall consist of thirty units from every thirty thousand units delivered to site				
	SUPERSTRUCTURE BRICKWORK				
	Brickwork of NFP bricks in class II mortar				
A	110mm Half Brick wall	m2	157		
В	230mm One brick walls	m2	8		
С	280mm Cavity brick walls	m2	28		
	FACE BRICKWORK				
	Face bricks pointed with recessed horizontal and vertical joints				
D	Extra over brickwork for face brickwork in superstructure	m2	43		
	BRICKWORK SUNDRIES				
E	Closing 50mm cavity of hollow walls vertically with brickwork half brick wide	m	29		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 3 Masonry CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	Closing 50mm cavity of hollow walls horizontally with two courses of brickwork	m	11		
В	Plaster coping 110mm wide to bund walls	m	46		
	Brickwork reinforcement				
С	75mm Wide reinforcement built in horizontally	m	454		
D	150mm Wide reinforcement built in horizontally	m	9		
	"Stresso" pre-stressed fabricated lintels				
Е	90 x 75mm Lintels in lengths not exceeding 3m	m	84		
	Carried to Collection			R	
	Section 5.3: Main Contract				
	Bill No. 3 Masonry CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 3				
Masonry				
COLLECTION				
COLLECTION Total Brought Forward from Page No.	Page         No         17         18         19		Amount	
<b>Carried to Summary</b> Section 5.3: Main Contract Bill No. 3 Masonry <b>CSIR Future PHARMA Facility, Pretoria</b> 21511-20-01-0- Main Contractor's BOQ Rev 0		R		



ltem No		Unit	Quantity	Rate	Amount	
	BILL NO. 4					
	WATERPROOFING					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	Waterproofing					
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets, etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs					
	DAMPPROOFING OF WALLS AND FLOORS					
	<u>One layer of 250 micron "Consol Plastics Gunplas USB</u> <u>Green" waterproof sheeting sealed at laps with</u> <u>"Gunplas Pressure Sensitive Tape"</u>					
А	Under surface beds	m2	98			
	One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course					
В	In walls	m2	20			
	Prepare and apply three coats dura flex or similar approved waterproofing system with 100mm wide end laps including sealing laps at corners with 100mm double sided tape as per manufacturers specifications					
С	Dress waterproofing into waste outlet including additional membrane and waterproofing	No	7			
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 4 Waterproofing CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



	JOINT SEALANTS, ETC				
	Approved silicone pointing				
А	Between aluminium windows, shopfronts, doors etc and walls	m	23		
в	Between timber doors etc and walls	m	10		
	<u>"Sikaflex pro 2HP" two-part polyurethane joint sealing compound including backing cord, bond breaker, etc</u>				
С	3 x 6mm In saw cut joints in floors	m	29		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 4				
	Waterproofing CSIR Future PHARMA Facility, Pretoria				
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Bill No. 4				
Waterproofing				
COLLECTION				
COLLECTION Total Brought Forward from Page No.	Page No 21 22		Amount	
Carried to Summary		R		
Section 5.3: Main Contract Bill No. 4 Waterproofing CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	ROOF COVERINGS, ETC				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	<u>Guarantees</u>				
	The contractor will be required to provide a written guarantee for the roof covering as follows:				
	<ul> <li>Galvanised roof covering material - five years</li> <li>Chromadek roof covering material - ten years</li> <li>Workmanship - ten years</li> </ul>				
	PROFILED METAL SHEETING AND ACCESSORIES				
	Sheeting shall be Aluminium Zinc coated IBR with approval from architect prior to installation and a standard backing coat, in strict accordance with the manufacturers instructions. Fixed to steel complete in its entirety by a approved contractor in strict accordance with manufacturer's specifications, refer to drawing number 21_028-LTS-DR-ZZ-LS-L00-190001-T-A, 21_028-LTS-DR-ZZ-LS-L00-190002-T-A				
А	Roof coverings with pitch not exceeding 25 degrees	m2	8		
	IBR roll-formed in continuous lengths to match existing , fixed to steel complete with and including all fixings, etc. All in accordance with the manufacturer's specifications, refer to drawing number 21_028-LTS-DR-ZZ-LS-L00- 190001-T-A, 21_028-LTS-DR-ZZ-LS-L00-190002-T-A				
В	Barge flashing 660mm girth	m	16		
С	Apex flashings 462mm girth	m	8		
	<b>Carried to Summary</b> Section 5.3: Main Contract Bill No. 5 Roof Covering <b>CSIR Future PHARMA Facility, Pretoria</b> 21511-20-01-0- Main Contractor's BOQ Rev 0			R	



ltem No		Unit	Quantity	Rate	Amount
	BILL NO. 6				
	CARPENTRY AND JOINERY				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	Particle board shall comply with the following specifications:				
	a) SABS 1300 Particle board: exterior and flooring type				
	b) SABS 1301 Particle board: interior type				
	Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc				
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



	The following joinery fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, gluing, blocking, planting on and screwing with countersunk screws, edge strips, skirtings, trims, framework, decorative plastics finish, glass, ironmongery, metalwork, paint or varnish finishes, etc Prices are to include for all ironmongery, finishes, etc unless otherwise described Prices are to include for the making of holes, etc to accommodate lighting, conduits, pipes, fittings, etc Prices are to include for approved silicon sealant at all junctions of work tops, sides, panels, etc. with walls Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete STRUCTURAL TIMBERWORK, ETC				
	South African Pine				
A	38 x 38mm Ceiling joists in lengths exceeding 2,4m and not exceeding 3,9m	m	55		
В	38 x 38mm Ceiling joists in lengths exceeding 3,9m and not exceeding 6,6m	m	232		
С	50 x 75mm Ceiling joists in lengths exceeding 3,9m and not exceeding 6,6m	m	83		
D	38 x 114mm Bolted beams in single lengths exceeding 3,9m and not exceeding 6,6m	m	150		
E	50 x 225mm Bolted rafters in single lengths exceeding 3,9m and not exceeding 6,6m	m	62		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



	Sundries				
А	Multi purpose joist hangers bolted to brick walls / concrete / partition wall including bolts, refer to architect's drawing 2022_CSIR_A.03.3.1	No	86		
	EAVES, VERGES, ETC				
	Wrought meranti				
В	12 x 220mm fascia boards fastened to ends of trusses/wall complete with H-section cover strips at joints	m	7		
	FIRE DOORS				
	Purpose made Class A fire door with "Plascon Velvago" finishes both sides with horizontal grooves to match "Lotus Amoretti Milano SUP Horizontal MDF doors", with and including rebated steel frame, ironmongery suitable for brick walls, as per the architect's door schedules and lab internal architecture schedules				
С	60min Fire Rated door type D_TD121b size 900 x 2 100mm high hung to and including single rebate steel door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.21 and 21_028-LTS-DR- ZZ-LS-L00-170002-L-A	No	2		
D	60min Fire Rated door type D_TD183b size 1 500 x 2 100mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.9 and 2022_CSIR_A.10.21 and 21_028- LTS-DR-ZZ-LS-L00-170002-L-A	No	3		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 6				Ħ
	Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	60min Fire Rated door type D_TD183b size 1 500 x 2 100mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.26 and 21_028-LTS-DR-ZZ-LS-L00- 170002-L-A	No	1		
В	60min Fire Rated door type D_TD193b size 1 800 x 2 132mm high hung to and including single rebate steel door frame, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.19 and 21_028-LTS-DR-ZZ-LS-L00- 170002-L-A	No	1		
	SKIRTINGS, CORNICES, ETC				
с	Wrought meranti 22 x 90mm Skirting with a rounded top edge plugged to wall including an 6 x 6mm notch	m	98		
	JOINERY FITTINGS				
	All joinery complete as per lab specialist's drawing: "21_028-LTS-DR-ZZ-LS-L00-170001-L-A" and "21_028- LTS-DR-ZZ-LS-L00-170002-L-A" and Architects Joinery Drawings: "2022_CSIR_A.08.1"				
	Custom built Kitchenettes, vanities, Counters, etc				
D	Kitchenette with overall unit size 2 970 x 600 x 900mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, 30mm Granite Counter Top, handles, drawers etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1" (sink, tiles and partition wall measured elsewhere)	No	1		
		NO	I		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	Wall mounted kitchen cabinet with overall unit size 1 200 x 300 x 750mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, handles etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1"	No	1		
В	Wall mounted kitchen cabinet with overall unit size 1 000 x 300 x 750mm high, formed of 16mm PG Bison accent doors, 16mm Melamine Shelves, handles etc, complete in its entirety as per drawings: "2022_CSIR_A.08.1"	No	1		
С	Stainless steel table with lockable casters overall size 1200 x 800mm complete as per drawing no: 21_028- LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Display cabinet with overall unit size 3 018 x 500 x 2 355mm high, formed of 16mm PG Bison Accent doors, 16mm PG Bison Accent Melawood Open Shelves, 22mm PG Bison Accent Range Melawood Counter Top, 8mm Tempered Glass Frameless triple sliding cabinet doors, flat aluminium bar handles, Wall mount heavy duty shelf support etc, complete in its entirety as per drawings : "2022_CSIR_A.08.2"	No	1		
	2mm Stainless steel step over bench with storage below				
E	Step over bench 1 914 x 450mm high bolted to floor complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and Laboratory fit out specification document	No	1		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



<u>16mm Melamine Laboratory Under Bench Cabinets</u> (Colour: "White")

- A Type C\_CF221f Custom built vacuum pump cabinet 468 x 500 x 848mm high under bench cabinet consisting of no doors and airvents on side of cabinet complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document
- B Type C\_CF221m Waste cupboard 468 x 500 x 848mm high under bench cabinet complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document
- C Type C\_CF222d Fixed cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable double drawers and double doors complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document
- D Type C\_CM121d Mobile cabinet 450 x 500 x 698mm high under bench cabinet consisting of non-lockable single drawers and doors complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document
- E Type C\_CM122b Mobile cabinet 968 x 500 x 698mm high under bench cabinet consisting of non-lockable single drawers complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document
- F Type C\_CM122d Mobile cabinet 968 x 500 x 698mm high under bench cabinet consisting of non-lockable double drawers and doors complete as per drawing no: 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document

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		QUANTITY SURVEYORS
No	4	
No	4	
No	5	
No	1	
No	1	
No	6	
		R



A	Type C_CM212d Mobile cabinet 968 x 360 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
В	Type C_CM212f Mobile cabinet 968 x 360 x 848mm high under bench cabinet consisting of non-lockable doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and Laboratory fit out specification document	No	1		
С	Type C_CM221 Mobile cabinet 468 x 500 x 848mm high under bench cabinet consisting of non-lockable single drawers complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	5		
D	Type C_CM221d Mobile cabinet 450 x 500 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
E	Type C_CM222b Mobile cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable full drawers complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	8		
F	Type C_CM222d Mobile cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable drawers and doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	10		
	Carried to Collection			R	
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B	Type C_CM222f Cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable doors complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and Laboratory fit out specification document Type C_CS222h Fixed sink cabinet 968 x 500 x 848mm high under bench cabinet consisting of non-lockable doors with fixed panels complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document <u>16mm Melamine Floor Standing Filing Cabinets (Colour:</u>	No	15 3		
С	<u>"White")</u> Wall Mounted Cabinet 1 000 x 290 x 1 225mm high filling cabinet consisting of double doors	No	3		
D	Floor standing storage cabinet with full glass inserts on doors 1695 x 600 x 750mm high	No	6		
E	Floor standing storage cabinet with full glass inserts on doors 1200 x 300 x 750mm high	No	1		
F	Floor standing storage cabinet with full glass inserts on doors 1480 x 600 x 2100mm high	No	2		
	<u>"Granite" solid core worktops to be fitted on epoxy</u> powder coated steel bench frames (bench frames elsewhere measured)				
G	Bench top (Type F_BT3c) 600 x 20mm thick	m	2		
	<u>"Trespa/Durcon Steel/Silver Grey" solid core worktops to</u> <u>be fitted on epoxy powder coated steel bench frames</u> (bench frames elsewhere measured)				
Н	Bench top (Type F_BT1a) 600 x 20mm thick	m	8		
J	Bench top (Type F_BT3a) 800 x 20mm thick	m	97		
	<b>Carried to Collection</b> Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery <b>CSIR Future PHARMA Facility, Pretoria</b> 21511-20-01-0- Main Contractor's BOQ Rev 0			R	



	<u>32mm epoxy coated square tubing frame (Type FF132a), 800 x 750mm high</u>				
A	Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (750mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
В	Bench frame consisting of 1 x left upright, 1 x right upright, 6 No. of centre uprights (750mm high), 6 No. of 970mm connectors (3 pieces), 1 No. of 370mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
	<u>32mm epoxy coated square tubing frame (Type</u> FF232a), 800 x 900mm high				
С	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and Laboratory fit out specification document	No	1		
D	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 190mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
E	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 470mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit				
	out specification document	No	4		
	Carried to Collection Section 5.3: Main Contract			R	<u> </u>
	Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	Bench frame consisting of 1 x left upright, 1 x right upright, 1 No. of centre uprights (900mm high), 1 No. of 970mm connectors (3 pieces) and 1 No. of 580mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
В	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 160mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
С	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 400mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
D	Bench frame consisting of 1 x left upright, 1 x right upright, 2 No. of centre uprights (900mm high), 2 No. of 970mm connectors (3 pieces) and 1 No. of 750mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1		
E	Bench frame consisting of 1 x left upright, 1 x right upright, 3 No. of centre uprights (900mm high), 3 No. of 970mm connectors (3 pieces) and 1 No. of 685mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
F	Bench frame consisting of 1 x left upright, 1 x right upright, 3 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	5		
	Carried to Collection			R	
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Bench frame consisting of 1 x left upright, 1 x right upright, 4 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces) and 1 No. of 360mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2			
Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (900mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1			
Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 7 No. of 970mm connectors (3 pieces) and 1 No. of 720mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	1			
Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and	No	1			
50mm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high	110				
Bench frame type C_FB212c consisting of 1 x left upright, 1 x right upright, 1 No. of 900mm connectors ( 4 pieces), complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out					
specification document	No	2			
Carried to Collection			R		
Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					
	upright, 4 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces) and 1 No. of 360mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (900mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 7 No. of 970mm connectors (3 pieces) and 1 No. of 720mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high) Bench frame type C_FB212c consisting of 1 x left upright, 1 x right upright, 1 No. of 900mm connectors ( 4 pieces), complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document Carried to Collection Section 5.3: Main Contract Bill No. 6 Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria	upright, 4 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces) and 1 No. of 360mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-Z2-LS-L00-170001-L-A and Laboratory fit out specification document       No         Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (900mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document       No         Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 7 No. of 970mm connectors (3 pieces) and 1 No. of 720mm connector (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document       No         Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document       No         Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high)       No         Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high)       No         Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high)       No         Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 x 900mm high)       No         Sotor farme type C_FB212c consisting of 1 x left upright, 1 x right upright, 1 No. of 900mm connectors ( 4 pieces), complete as per drawing no: 21_028-LTS-DR- Z2-LS-L00-170001-L-A and Laboratory fit out specification document	upright, 4 No. of centre uprights (900mm high), 4 No. of       970mm connectors (3 pieces) and 1 No. of 360mm         connector (3 pieces), complete as per drawing no:       21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit         out specification document       No       2         Bench frame consisting of 1 x left upright, 1 x right       upright, 5 No. of centre uprights (900mm high), 6 No. of       970mm connectors (3 pieces), complete as per drawing         no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and       Laboratory fit out specification document       No       1         Bench frame consisting of 1 x left upright, 1 x right       upright, 7 No. of centre uprights (900mm high), 7 No. of       970mm connectors (3 pieces), complete as per drawing no:       21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit         out specification document       No       1         Bench frame consisting of 1 x left upright, 1 x right       upright, 7 No. of centre uprights (900mm high), 8 No. of       970mm connectors (3 pieces), complete as per drawing no:         21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit       No       1         Bench frame consisting of 1 x left upright, 1 x right       upright, 7 No. of centre uprights (900mm high), 8 No. of       970mm connectors (3 pieces), complete as per drawing no:         21_028-LTS-DR-ZZ-LS-L00-170001-L-A and       Laboratory fit out specification document       No       1         50mm econy powder coated square tubing modular frame (Type FB212c),	upright, 4 No. of centre uprights (900mm high), 4 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo2Bench frame consisting of 1 x left upright, 1 x right upright, 5 No. of centre uprights (900mm high), 6 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo1Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 7 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo1Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo1Bench frame consisting of 1 x left upright, 1 x right upright, 7 No. of centre uprights (900mm high), 8 No. of 970mm connectors (3 pieces), complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo1Somm epoxy powder coated square tubing modular frame (Type FB212c), 600 X 900mm high)No1Bench frame type C_FB212c consisting of 1 x left upright, 1 x right upright, 1 No. of 900mm connectors ( 4 pieces), complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification documentNo2Carried to CollectionNo2Carried to CollectionRSection 5.3: Main Contract Bill No. 6 Carpenty a	upright, 4 No. of centre uprights (900mm high), 4 No. of         970mm connectors (3 pieces) and 1 No. of 360mm         connector (3 pieces), complete as per drawing no:         21_028-1T5-DR-Z2-L5-100-170001-L-A and Laboratory fit         out specification document         Bench frame consisting of 1 x left upright, 1 x right         upright, 5 No. of centre uprights (900mm high), 6 No. of         970mm connectors (3 pieces), complete as per drawing         no: 21_028-1T5-DR-Z2-L5-100-170001-L-A and         Laboratory fit out specification document         No         1         Bench frame consisting of 1 x left upright, 1 x right         upright, 7 No. of centre uprights (900mm high), 7 No. of         970mm connectors (3 pieces), complete as per drawing no:         21_028-1T5-DR-Z2-L5-100-170001-L-A and Laboratory fit         out specification document       No         1         Bench frame consisting of 1 x left upright, 1 x right         upright, 7 No. of centre uprights (900m high), 8 No. of         970mm connectors (3 pieces), complete as per drawing no:         21_028-1T5-DR-Z2-L5-100-170001-L-A and         Laboratory fit out specification document         No       1         Softmere frame type C_FB212c, consisting of 1 x left         upright, 1 x right upright, 1 No. of 900mm connectors (4 pieces), complete as per draw



	<u>32mm epoxy coated square tubing modular frame (Type FW211a), 600 x 900mm high</u>				
A	Bench frame type C_FW211a consisting of 1 x left upright, 1 x right upright, 1 No. of 1 140mm connectors (4 pieces), complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	4		
	<u>32mm epoxy coated square tubing modular frame (Type FW232a), 800 x 900mm high</u>				
В	Bench frame type C_FW232a consisting of 1 x left upright, 1 x right upright, 1 No. of 1 140mm connectors (4 pieces), complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
	Stainless Steel wall mounted coat hanging hooks				
С	Coat hook with overall size 500 x 130mm High (5 Hooks), Type F_CH001, complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	3		
D	Coat hook with overall size 1 000 x 130mm High (10 Hooks), Type F_CH002, complete as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	3		
	Carried to Collection			R	
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1	SHELVING				
	<u>2mm Brushed stainless steel Grade 316 with perforated</u> <u>shelves</u>				
A	Type C_SF344d Brushed stainless steel floor standing shelving unit 4 174mm length x 450mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS- L00-170001-L-A and Laboratory fit out specification document	No	1		
	2mm Bright white powder coated mild steel shelves				
В	Type C_SW324d Powder coated steel wall band shelving unit 900mm length x 350mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	6		
	<u>16mm Melamine shelves with edging to timber edges</u>				
С	Type C_SW324b Melamine wall band shelving unit 900mm length x 350mm depth x 1 500mm high with 4 tiers fixed complete including all fixings, etc as per drawing no: 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	10		
	STORAGE CABINETS				
	<u>1mm Cold-rolled steel treated with phosphate Shelving</u> with a baked powder epoxy coating (Colour: "Slate Grey" smooth finish)				
D	Melamine floor standing locker cabinet unit 2 100mm high with 3 tiers, complete as per drawing no: 21_028- LTS-DR-ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	9		
	Carried to Collection			R	
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	PEGBOARDS				
	Polypropylene Pegboard				
A	1000 x 1000mm high epoxy resin pegboard, Type F_PB010 complete as per drawing no: 21_028-LTS-DR- ZZ-LS-L00-170001-L-A and Laboratory fit out specification document	No	2		
	Carried to Collection			R	
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Bill No. 6		
Carpentry and Joinery		
COLLECTION		
	Page	Amount
Total Brought Forward from Page No.	<b>No</b> 25	
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Carpentry and Joinery CSIR Future PHARMA Facility, Pretoria		
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ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 7</u>				
	CEILINGS, PARTITIONS, ETC				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	Descriptions:				
	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				
	Warranties and Guarantees				
	A Warranty is to be provided for the laminated safety glass which warrants the product against delaminating and colour degradation for a period of not less than 5 years				
	A Guarantee is to be provided for the powder coating which guarantees the product against peeling and discolouration of all powder coating for a period of not less than 15 years				
	A Certificate of compliance is to be provided that all anodizing supplied meet with SANS 999 in all aspects				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



# Top hung windows

Subcontractor are to allow for heavy duty friction hinges to all top hung windows in their pricing. Friction hinges must be able to be tightened/adjusted.

## **Protection**

Contractor is to ensure that allowances are made for sufficient protection against damage, etc as required and in which case tenders are to allow for protective tape on frames and glazing according the relevant item in this document.

# **Finishes**

Final product shall be free from all sharp edges

## **Ironmongery**

All ironmongery to be supplied by the Contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these ironmongery on submission of their tenders. All ironmongery shall be approved by the Architect prior to installation

Sub Contractor to supply all relevant shopfronts with catches, handles, hinges etc. to match shop fronts and doors, all to the Architects approval

All sliding gear to sliding doors to be supplied by the contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these sliding gear on submission of their tenders. All sliding gear shall be approved by the Architect prior to installation

## **Carried to Collection**

Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0

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	Joints and Sealants				
	All joints in frames shall be made by mechanical means				
	An approved silicone sealant is to be provided for both sides of all internal and external shop fronts between the aluminium frames and brick wall or concrete column and between the aluminium frame and plaster finish				
	Powdercoating				
	Aluminium surfaces to receive 50-80µm Matt Charcoal powder coating to be applied by a certified markholder of SANS 1578 and SANS 1796				
	SUSPENDED CEILING				
	"OWAcoustic Constellation Premium Biologically" ceiling panels, size 600 x 600 x 15mm thick, laid on fire rated OWAconstruct® S3 exposed demountable Butt-cut T24 suspension system, comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 600mm with ceiling perimeter finished all installed to manufacturers instructions, refer to architect's drawing no: 2022_CSIR_A.03.3.1 and specification document				
A	Ceilings suspended not exceeding 1m below timber structure	m2	82		
В	Extra over ceiling for 200 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2		
С	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
D	Extra over ceiling for 600 x 350mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
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	Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



	12.5mm Gyproc Gyprex Vinyl Faced Gypsum ceiling panels, face-covered with white embossed vinyl, size 600 x 600mm, laid on Donn QRC exposed demountable butt-cut T37 suspension system, including galvanised main tees, cross tees, etc. with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, and all installed to manufacturer's instructions, refer to drawing no: 21_028-LTS-DR-ZZ-LS-L00- 110101-L-A and Laboratory Internal Architectural Specification Document				
A	Ceilings suspended not exceeding 1m below concrete soffits	m2	353		
В	Ceilings suspended not exceeding 1m below steel platform	m2	64		
С	Ceilings suspended not exceeding 1m below timber structure	m2	57		
D	Extra over ceiling for 200 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	5		
E	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2		
F	Extra over ceiling for 300 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2		
G	Extra over ceiling for 400 x 400mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	2		
Н	Extra over ceiling for 600 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	3		
J	Extra over ceiling for 315mm diameter opening for supply air grille, extractor grill, air conditioning unit, etc	No	13		
К	Extra over ceiling for 450mm diameter opening for supply air grille, extractor grill, air conditioning unit, etc	No	4		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	Extra over suspended ceilings for circular cutting	m	19		
	Insulated EPS15 50mm core ceiling panels with and including ceiling suspension system, necessary hangers, grids, aluminium up-stand profiles or PVC U-channel profiles, etc. in strict accordance with manufacturer's and lab specialist's specifications. pre-coated Chromadek steel facing with polyester paint finish (Colour: Frost White), refer to drawing no: 21_028-LTS- DR-ZZ-LS-L00-110101-L-A and Laboratory Internal Architectural Specification Document				
В	Clean room ceiling panels suspended not exceeding 1m below steel platform	m2	12		
С	Cold room ceiling panels suspended not exceeding 1m below concrete soffits	m2	9		
D	Clean room ceiling panels suspended not exceeding 1m below timber structure	m2	63		
E	Extra over ceiling for 200 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	6		
F	Extra over ceiling for 250 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	3		
G	Extra over ceiling for 300 x 200mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
н	Extra over ceiling for 350 x 300mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
J	Extra over ceiling for 400 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
к	Extra over ceiling for 400 x 400mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
L	Extra over ceiling for 450 x 250mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	1		
	Carried to Collection			R	
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А	Extra over ceiling for 600 x 600mm opening for supply air grille, extractor grill, air conditioning unit, etc	No	8		
	Cornices, perimeter trims, etc to suspended ceilings plugged and screwed at centres as per specification				
В	"Donn SM25" or similar approved shadowline cornice moulding in vivid white plugged to wall	m	499		
С	20 x 20mm Aluminium trim cornice	m	88		
	BULKHEADS				
	9.5mm "Gyproc Rhinoboard" bulkheads with Joints to be covered with Rhinotape fixed over joints, then apply "cretestone" for final board finish skim plaster to a smooth polished surface to the thickness recommended by the manufacturer on a Donn T37K concealed tee suspension system including main and cross tees, necessary hangers, grids, etc, complete in its entirety as per drawings: "2022_CSIR_A.03.3.1", "21_028-LTS-DR- ZZ-LS-L00-110101-L-A" and architect's specification document				
D	Vertical bulkhead 250mm high, including closing up at the top	m	23		
E	Vertical bulkhead 285mm high, including closing up at the top	m	10		
F	Vertical bulkhead 300mm high, including closing up at the top	m	2		
G	Vertical bulkhead 460mm high, including closing up at the top	m	23		
н	Horizontal bulkhead 700mm wide	m	21		
J	Horizontal bulkhead 1270mm wide	m	6		
	Carried to Collection			R	$\left[ \right]$
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



1	PARTITIONS, ETC				1
	"Gyproc Rhinoboard Soundbloc" drywall partition consisting of one layer of 15mm "Rhinoboard" either side of 63.5mm stud and track system at 220mm centres with tape and joint finish, wall surface to be finished with minimum 3mm thick RhinoLite multi- purpose all in accordance with the manufacturers recommendations, refer to architect's drawing no: 2022_CSIR_A.03.3.1 and specification document				
A	Partitioning 2 500mm high with bottom track plugged to floor and top track fixed complete	m	4		
В	Partitioning 2 800mm high with bottom track plugged to floor and top track fixed complete	m	56		
С	Partitioning 3 000mm high with bottom track plugged to floor and top track fixed complete	m	34		
D	Partitioning 3 060mm high with bottom track plugged to floor and top track fixed complete	m	7		
Е	Extra over drywall partitions 2 500mm high for vertical abutment	No	1		
F	Extra over drywall partitions 2 500mm high for corner	No	1		
G	Extra over drywall partitions 2 800mm high for vertical abutment	No	7		
Н	Extra over drywall partitions 2 800mm high for corner	No	4		
J	Extra over drywall partitions 2 800mm high for T- intersection	No	7		
К	Extra over drywall partitions 3 000mm high for vertical abutment	No	5		
L	Extra over drywall partitions 3 000mm high for corners	No	1		
	Carried to Collection			R	
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А	Extra over drywall partitions 3 000mm high for T- intersection	No	4		
В	Extra over drywall partitions 3 060mm high for Vertical Abutments	No	1		
	Extra over drywall partition for opening, doors, windows, shopfront, etc				
С	Extra over partition 3060mm high for shopfront type SF01 with size 6 192 x 2 400mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.13	No	1		
D	Extra over partition 3000mm high for shopfront type SF02 with size 3 492 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule	No	1		
E	2022_CSIR_A.10.14 Extra over partition 3000mm high for shopfront type SF03 with size 2 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.15	No	2		
F	Extra over partition 3000mm high for shopfront type SF03 with size 2 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.16	No	1		
	Carried to Collection			R	
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А	Extra over partition 3000mm high for door type D_AD121c with size 900 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.11	No	1		
В	Extra over partition 2800mm high for door type D_AD141c with size 1 100 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A and door schedule 2022_CSIR_A.10.22	No	1		
С	Extra over partition 3000mm high for door type D_AD121c with size 900 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A and door schedule 2022_CSIR_A.10.5	No	2		
D	Extra over partition 2500mm high for door type D_AD193c with size 1 800 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A and door schedule 2022_CSIR_A.10.7	No	1		
E	Extra over partition 2800mm high for door type D_AD193c with size 1 800 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A and door schedule 2022_CSIR_A.10.7	No	1		
	<b>Carried to Collection</b> Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0			R	
	CSIR Future PHARMA Facility, Pretoria				



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A	Extra over partition 2800mm high for door type D_AD173c with size 1 400 x 2 100mm high including powder coated aluminium door frame, including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002- L-A and door schedule 2022_CSIR_A.10.20	No	3			
В	Extra over partition 2800mm high for window type W_AF131a with size 1 200 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31	No	1			
С	Extra over partition 2800mm high for window type W_AF151a with size 1 800 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31	No	2			
D	Extra over partition 2800mm high for Aluminium glazed window wall type IS_T01a 900mm high including frame, ironmongery, etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002- L-A and window schedule 2022_CSIR_A.10.29	m	8			
	<u>"Lafarge" gypsum drywall partition type LPF64-60/3</u> consisting of one layer of 12.5mm "Fire Check Board" either side of 64mm stud and track system at 600mm centres with tape and joint finish					
E	60min Fire Rated Drywall 3 000mm high with bottom track plugged to floor and top track fixed to ceiling	m	5			
F	60min Fire Rated Drywall 4 500mm high with bottom track plugged to floor and top track fixed to ceiling	m	10			
G	Extra over fire rated drywall partitions 3 000mm high for vertical abutments	No	2			
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



A	Extra over fire rated drywall partitions 4 500mm high for vertical abutments	Na				
	<u>Extra over 60min fire rated drywall for opening, doors,</u>	No	2			
	windows, shopfront, etc					
В	Extra over fire rated drywall partition for 60min Fire Rated door type D_TD183b size 1 500 x 2 100mm high hung to and including single rebate steel door frame, ironmongery, additional studding, cut-out for viewing panel, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 2022_CSIR_A.03.1.2 and door schedule 2022_CSIR_A.10.12	No	1			
	CLEAN ROOM PANELS					
	Insulated EPS15 clean room panels consisting of 150mm thick expanded polystyrene 15 +-3kg/m3 core panel, 0.5mm thick pre-coated with Chromadek steel facing with polyester paint (Colour: Frost white - 30% gloss) fixed in accordance with manufacturer's and lab specialist's specifications					
С	Clean room panels 2 600mm high	m	23			
D	Clean room panels 2 800mm high	m	25			
Е	Extra over clean room panels 2 600mm high for corners	No	1			
F	Extra over clean room panels 2 600mm high for vertical abutments	No	1			
G	Extra over clean room panels 2 600mm high for T- intersections	No	1			
Н	Extra over clean room panels 2 800mm high for corners	No	1			
J	Extra over clean room panels 2 800mm high for vertical abutments	No	3			
	Carried to Collection			R		
	Section 5.3: Main Contract					+
	Bill No. 7 Ceilings, partitions, etc					
	CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					
I		I I	I	I	I	I



Α	Extra over clean room panels 2 800mm high for T- intersections	No	6		
	Extra over for 150mm Thick Chromadek cleanroom doors with viewing panels of 6mm laminated safety glass and airtight rubber seals as per LTS drawings 20_048-LTS-DR-ZZ-LS-L02-170003 Rev 0				
В	Extra over clean room panels for window type W_AF151a with size 1 800 x 900mm, complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110001-L-A and window schedule 2022_CSIR_A.10.33	No	2		
С	Extra over clean room panels for custom made cold room door type D_CD121c size 900 x 2 100mm high including ironmongery set 1, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS- L00-110002-L-A and door schedule 2022_CSIR_A.10.24	No	1		
D	Extra over clean room panels for custom made aluminium door type D_AD141b size 1 100 x 2 100mm high including ironmongery set 2, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS- L00-110001-L-A and door schedule 2022_CSIR_A.10.4	No	6		
E	Extra over clean room panels for custom made aluminium laboratory door type D_AD193b size 1 800 x 2 100mm high including ironmongery set 2, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110001-L-A and door schedule 2022_CSIR_A.10.6	Νο	2		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 7 Ceilings, partitions, etc CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 7	
Ceilings, partitions, etc	
COLLECTION	
Pa N	ge Amount
Total Brought Forward from Page No.     4	
4	1
4	2
4	3
4	4
4	5
4	6
4	7
	8
5	
5	
Carried to Summary	R
Section 5.3: Main Contract	
Bill No. 7 Ceilings, partitions, etc	
CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0	



ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 8</u>				
	FLOOR COVERINGS, ETC				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	<u>Fixing</u>				
	Floor coverings, wall linings, skirtings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
	Surface preparation, priming, curing, cleaning etc				
	Descriptions of the items below are deemed to include all necessary preparation, priming, mixing, curing, cleaning etc as prescribed by the manufacturers of the various products.				
	CARPETS, ETC				
	500 x 500mm "Belgotex Matrix" carpet tiles installed on screeded floors in accordance with the manufactures instructions, as per the architects drawing 2022 CSIR_A.03.1.3 and 2022_CSIR_A.03.1.2 and specification document				
A	On existing floors and landings	m2	106		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 8 Floor coverings, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



1		1	1		1	1
	VINYL, ETC "GERFLOR Mipolam Non-directional PUR " 2mm flexible flooring, on screed floors with approved adhesive all in accordance with the manufacturer's instructions, as per the architects drawing 2022_CSIR_A.03.1.3 and 2022_CSIR_A.03.1.2 and specification document					
А	On floors and landings	m2	380			
В	Turn-up 150mm high with capping strip including 20mm cove fillet complete as per architects drawing	m	274			
	<u>EPOXY</u>					
	Flowcrete Flowfresh SL (2mm) or similar approved, as per the architects drawing 2022 CSIR A.03.1.3 and 2022 CSIR A.03.1.2, specification document and laboratory internal architectural specification document					
С	2.5mm epoxy floor covering	m2	297			
	Derakane -Signia Epoxy Vinyl Ester Resin (411-45) (6.5mm) or similar approved, as per the architects drawing 2022_CSIR_A.03.1.3 and 2022_CSIR_A.03.1.2, specification document and laboratory internal architectural specification document					
D	6.5mm epoxy floor covering	m2	18			
E	Turn-up 150mm high with capping strip including 20mm cove fillet complete as per architects drawing	m	249			
	POLISH, SEALER, ETC					
F	Strip and apply one coat approved wax polish on vinyl flooring	m2	421			
	Carried to Collection			R		$\vdash$
	Section 5.3: Main Contract			IX.		-
	Bill No. 8 Floor coverings, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
	<u>"Kirk Marketing" or similar approved installed as per</u> manufactures recommendations				
A	46 x 11mm Anodised aluminium (code: ACGSE100) dividing strip	m	8		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 8 Floor coverings, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 8				
Floor coverings, etc				
COLLECTION				
	Page No		Amount	
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	55			
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Section 5.3: Main Contract Bill No. 8				
Floor coverings, etc CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				
21511-20-01-0- Main Contractor's BOQ Rev 0				



ltem No		Unit	Quantity	Rate	Amount	
	<u>BILL NO. 9</u>					
	STRUCTURAL STEELWORK					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	<u>Descriptions</u>					
	Descriptions of bolts shall be deemed to include nuts and washers					
	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					
	Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork					
	Structural Steelwork					
	All structural steelwork shall be fabricated and erected in accordance with the latest edition of SABS 1200H					
	All dimensions shall be checked on site before shop drawings commence. Any discrepancies shall be brought to the attention of the engineer					
	A complete set of shop drawings shall be submitted to the engineer for approval before fabrication commences. The contractor shall allow one week for checking and approval by the engineer, and shall also allow for any possible chances to shop drawings					
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



The contractor shall design all welds and, where necessary, gussets of sufficient strength, shall be approved to obtain the required weld strength

Setting out points (S.O.P's) at member centroids shall conform to those shown on general arrangement drawings. No eccentricities, except those shown on the engineer's drawings, shall be allowed

All structural steelwork shall be grade 350WA

A certificate from the steel manufacturer in which the grade of the structural steel is verified shall be handed to the engineer for approval

All bolts and lugs shall be grade 8.8 unless otherwise noted and shall be deemed to be included

All welds to be 6mm fillet welds

The proposed method and sequence of erection of the structure shall be submitted to the engineer for written approval. Such submission is to take place at time of shop drawing submittal. The contractor shall indicate the proposed method of propping to ensure stability of the structure during erection. Such stability during erection remains the contractor's responsibility. Where temporary bracing and propping is necessary, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports. Proposal of such bracing or propping shall be submitted to the engineer at an early stage for written approval

Structural steel to be engineered to be smooth i.e. no welding spatter, sharp edges, slag etc. should be present prior to the application of the final painting coat

#### **Carried to Collection**

Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0 R



	Galvanizing Specification				
	All galvanised work to be 85 micron, in strict accordance with the S.A. Galvanising Association Specifications				
	<u>GALVANISED STEEL PURLINS, GIRTS, BRACING,</u> <u>ETC</u>				
	<u>Welded roof rafter of angle rafters, tie beams, rails,</u> struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted to brick walls				
А	140 x 73mm x 12.9kg/m IPE rafter	t	0.12		
	Purlins and girts, bolted to brick walls				
В	125 x 50 x 20 x 2.0mm Thick cold-formed lipped channel roof purlins	t	0.08		
	Bolts, etc to trusses				
С	High tensile bolts	t	0.08		
D	M20 x 500mm Diameter chemical anchor and bolt	No	7		
	GALVANISED STEEL STAIRS, BALUSTRADING, HANDRAILS, FLOORING, ETC				
	<u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u>				
Е	152 x 152mm x 23.4kg/m I-section columns	t	0.75		
	Welded beams in single lengths with flat bearer and connection plates, bracing, anti-sag rails, angled bearers, flat connection plates, gusset plates, compound rails formed of flats and angles welded and bolted, etc bolted to steel				
F	50 x 50 x 5mm x 3.77kg/m Angle	t	0.05		
G	70 x 70 x 6mm x 6.38kg/m Angle	t	0.03		
	Carried to Collection			R	+
	Section 5.3: Main Contract				╞
	Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



А	200 x 75 x 20 x 2.5mm thick cold-formed lipped channel bearers	t	0.35			
В	200 x 75 x 20 x 2.5mm thick cold-formed lipped channel stringers	t	0.22			
С	RS 40 x 4.5mm Rectagrid landing to stairs	m2	32			
D	RS 40 x 4.5mm Rectagrid threads to stairs	m2	19			
E	Non-slip perforated nosing to RS 40 x 4.5mm steel rectagrid stair thread	m	68			
	Galvanised steel balustrade 1,000mm high with 38 x 38 x 3mm steel square hollow section handrail, solid cast pin with 16dia base, 19mm internal rails as equal spacing, 38 x 38 x 3mm steel square hollow section posts at equal spacing, 100mm diameter x 5mm cup flange base plate bolted to steel with and including chemical anchor bolts including all bends, ends, knees, paint, etc., all in accordance with the Architect' drawings 2022_CSIR_A.08.3					
F	To raking stairs	m	26			
G	To staircase landings	m	32			
	<u>Bolts, etc</u>					
н	High tensile bolts	t	0.24			
	FASTENERS, PLATES, ETC					
J	6mm thick plate with size 200mm x 200mm	No	11			
	COLUMN AND BEAM CONNECTIONS					
	Bolts, end plates, top plates, etc					
к	30mm Diameter M16 anchor bolt 200mm long embedded in concrete	No	44			
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					
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	TESTS					
	Weld testing					
A	Provide the sum of R10,000.00 (Ten Thousand) for quality control inspection by an authorised independent inspection authority, to be used as directed by the Principal Agent and deducted in whole or in part if not required		ltem		10,000.	00
	Carried to Collection			R		
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	Section 5.3: Main Contract Bill No. 9 Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



Bill No. 9				
Structural Steelwork				
COLLECTION				
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Section 5.3: Main Contract Bill No. 9				
Structural Steelwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				
21511-20-01-0- Main Contractor's BOQ Rev 0				



ltem No		Unit	Quantity	Rate	Amount	
	BILL NO. 10					
	METALWORK					
	SUPPLEMENTARY PREAMBLES					
	Warranties and Guarantees					
	A Warranty is to be provided for the laminated safety glass which warrants the product against delaminating and colour degradation for a period of not less than 5 years					
	A Guarantee is to be provided for the powder coating which guarantees the product against peeling and discolouration of all powder coating for a period of not less than 15 years					
	A Certificate of compliance is to be provided that all anodizing supplied meet with SANS 999 in all aspects					
	Top hung windows					
	Subcontractor are to allow for heavy duty friction hinges to all top hung windows in their pricing. Friction hinges must be able to be tightened/adjusted.					
	Protection					
	Contractor is to ensure that allowances are made for sufficient protection against damage, etc as required and in which case tenders are to allow for protective tape on frames and glazing according the relevant item in this document.					
	<u>Finishes</u>					
	Final product shall be free from all sharp edges					
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



# Ironmongery

All ironmongery to be supplied by the Contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these ironmongery on submission of their tenders. All ironmongery shall be approved by the Architect prior to installation

Sub Contractor to supply all relevant shopfronts with catches, handles, hinges etc. to match shop fronts and doors, all to the Architects approval

All sliding gear to sliding doors to be supplied by the contractor unless otherwise specified. Contractors are to provide samples for approval by the Architect of these sliding gear on submission of their tenders. All sliding gear shall be approved by the Architect prior to installation

### Joints and Sealants

All joints in frames shall be made by mechanical means

An approved silicone sealant is to be provided for both sides of all internal and external shop fronts between the aluminium frames and brick wall or concrete column and between the aluminium frame and plaster finish

#### **Powdercoating**

Aluminium surfaces to receive  $50-80\mu m$  Matt Charcoal powder coating to be applied by a certified markholder of SANS 1578 and SANS 1796

### **Carried to Collection**

Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0 R



	ALUMINIUM WINDOWS, DOORS & SHOPFRONTS				
	Powder coated aluminium door with single glazed Laminated safety glass, ironmongery, sealing and plugged to brickwork or concrete all in accordance with specifications and architect's drawings				
A	Custom made aluminium door type D_AD121c size 900 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.18 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1		
В	Custom made aluminium door type D_AD141c size 1 100 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS- L00-110001-L-A and door schedule 2022_CSIR_A.10.10 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1		
С	Custom made aluminium door type D_AD141c size 1 100 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS- L00-110002-L-A and door schedule 2022_CSIR_A.10.22 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1		
D	Custom made aluminium door type D_AD183c size 1 500 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS- L00-110001-L-A and door schedule 2022_CSIR_A.10.8 and 21_028-LTS-DR-ZZ-LS-L00-170002-L-A	No	1		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



A	Custom made aluminium sliding door type D_AD104c size 2 000 x 2 100mm high hung to and including powder coated aluminium door frame, additional studding, trimming, concealed edges etc. complete in its entirety as per the architect's drawing: 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and door schedule 2022_CSIR_A.10.23 and 21_028-LTS-DR-ZZ-LS-L00- 170002-L-A	No	3		
	Purpose made powder coated aluminium window glazed with 6.8mm Laminated Annealed safety glass, including ironmongery, sealing and plugged to brickwork or concrete or partitions all in accordance with specifications and architect's drawings				
	Aluminium window all complete as per Architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170002-L-A				
В	Custom made aluminium window type W_AF131a size 1 200 x 900mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and window schedule 2022_CSIR_A.10.31	No	7		
С	Custom made aluminium window type IS_T01a size 1 950 x 900mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-110002- L-A and window schedule 2022_CSIR_A.10.30	No	1		
	STEEL ROLLER SHUTTERS, ETC				
	Purpose made external "chain operated" powdercoated (colour: "TBC") (to approved sample) roller shutter door with heavy gauge slide guides to suit roller shutter door, fixed complete in its entirety to brickwork, concrete or steel frame, all in accordance with specifications and architect's drawings				
D	Chain operated roller shutter door Type D_RD195a size 1 800 x 2 100mm high, complete in its entirety as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00- 110002-L-A and door schedule 2022_CSIR_A.10.25	No	3		
	Carried to Collection			R	
	Section 5.3: Main Contract				 
	Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 10				
Metalwork				
COLLECTION				
COLLECTION Total Brought Forward from Page No.	Page         63         64         65         66		Amount	
Carried to Summary Section 5.3: Main Contract Bill No. 10 Metalwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0		R		



ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 11</u>				
	PLASTERING				
	Note: Tenderers are reminded that common labours such as slightly rounded angles, fair edge, drips and arises, etc. are deemed to be included in the description of the plaster. Special prescribed labours are measured in accordance with the Standard System				
	SUPPLEMENTARY PREAMBLES				
	<u>Cement</u>				
	Cement must contain a specific bidding condition that only locally produced or locally manufactured cement with a stipulated minimum threshold for local production and content will be considered, please refer to the Tender Document Section 8.2: Stipulated minimum threshold for local production and content for cement				
	<u>Finish</u>				
	Internal plaster shall be finished with a steel trowel and external plaster with a wooden float				
	<u>SCREEDS</u>				
	Screeds on concrete				
А	30mm Thick on floors and landings	m2	98		
	"FloorworX Pavelite" screed or similar approved				
В	4mm Thick on floors and landings	m2	486		
	INTERNAL PLASTER				
	Cement plaster on brickwork				
С	On walls	m2	372		
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 11 Plastering CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Α	On narrow widths	m2	18		
	EXTERNAL PLASTER				
	Cement plaster on brickwork				
В	On narrow widths	m2	5		
	Carried to Collection			R	 
	Section 5.3: Main Contract Bill No. 11				
	Plastering CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				



ĺ	Bill No. 11				
	Plastering				
	COLLECTION				
		Page No		Amount	
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	Section 5.3: Main Contract Bill No. 11				
	Plastering CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 12</u>				
	<u>TILING</u>				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere measured)" 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.				
	All floor tiles are to be completely covered/backed with adhesive in order to ensure no hollow areas behind tiles.				
	<u>Repairs</u>				
	Repairs to damaged areas in the existing concrete surface bed or slab is to be done using "TAL Superscreed"				
	<u>Sealants, etc</u>				
	Tenders should include in their price for silicone sealant between all skirting tiles and floor tiles.				
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 12 Tiling CSIR Future PHARMA Facility, Pretoria				
	21511-20-01-0- Main Contractor's BOQ Rev 0				



1	Movement joints				
	Tenders are to include in their price for soft joint and sealants in panels of 3 000 x 3 000mm maximum to floor tiling or in accordance with the manufacturer's requirements. Joints to be sealed with "Sikaflex Pro 2HP" after priming the joint with "Sika Primer". Where practical the bulk of the depth of the joint can be filled with 6mm diameter closed cell polyethylene chord.				
	Grouting joints				
	Joints to be 3 to 5mm maximum width				
	WALL TILING				
	<u>Ceramic tiles fixed with "Gold Star 6" adhesive to walls</u> flush pointed with "TAL Wall & Floor" grouting				
A	On walls in splashbacks	m2	1		
	SUNDRIES				
	<u>"Kirk Marketing M-Trim" aluminium trims or similar</u> approved				
В	Straight edge trim brush finish (ASE100)	m	3		
	Carried to Collection			R	
	Section 5.3: Main Contract				 ╞
	Bill No. 12 Tiling				
	CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



Bill No. 12				
Tiling				
COLLECTION				
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Section 5.3: Main Contract Bill No. 12 Tiling CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



ltem No		Unit	Quantity	Rate	Amount	
	<u>BILL NO. 13</u>					
	PLUMBING AND DRAINAGE					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	uPVC pipes and fittings					
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed					
	uPVC pressure pipes and fittings					
	Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints					
	Fixing of pipes					
	Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level					
	Carried to Collection			R		
	Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0					



## Reducing fittings

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

#### Wire gratings

Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings

#### **Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks"

#### **Carried to Collection**

Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0

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# Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding Flush pans Flush pans shall have straight or side outlets and "P" or "S" traps as necessary Stainless steel basins, sinks, wash troughs, urinals, etc Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable Waste unions Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings **Carried to Collection** R Section 5.3: Main Contract Bill No. 13 Plumbing & Drainage **CSIR Future PHARMA Facility, Pretoria** 21511-20-01-0- Main Contractor's BOQ Rev 0



## <u>Sealing</u>

Prices for sanitary fittings shall include for sealing against walls with silicone sealing compound. This shall apply to all sanitary fittings.

## Valves, etc

Descriptions of valves etc shall be deemed to include flanged or screwed connections to piping, reducers, supports etc

## Painting

The Principal Building Contractor will be responsible for painting all pipe work and painting of the pipe work must be included in the tendered rates for the hot and cold water supply

### Pricing

The tenderer must price each item in this section individually and no changes made by the tenderer shall be recognised

Where inclusive items are measured and priced, the contractor must on request, supply full details of the components and prices making up the inclusive items. If the contractor does not supply such details and prices within fourteen days after having been requested to do so, the Quantity Surveyor will determine such at his own discretion

## **Carried to Collection**

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## PREAMBLES

For Preambles see 'Standard Preambles to Trades'

In addition to the 'Standard Preambles to Trades' the following SABS codes are applicable:

PIPE THREADS	SABS 21
GALVANISING	SABS 763
WROUGHT STEEL SCREWED	
FLANGES BS 10/	SABS 1123
ERW PIPING	SABS 719
DENSOWRAP	SABS 1117
NON-RISING SPINDLE VALVES	SABS 665
WATER TANKS	SABS/CKS 114

## NOTE:

Unless otherwise stated all excavation depths are related to finished levels

Note that all geysers are to be either hung from the roof structure or located on bearing walls, etc and that all hangers, etc must be included to the approval of the engineer. All such bearers, bolts, etc must be allowed for in this tender under the respective item by the tenderer and no claims in this regard will be entertained.

Descriptions of pipes in ground are deemed to include for excavation, bedding and backfilling as per the Engineer's details. The stated depths refer to the measurement from finished ground level to invert level of the pipes.

No distinction has been made between pipes been chased in, built in, or to be suspended from roof trusses, etc. The tenders must study the drawings and familiarise themselves with the extent of the works and do the necessary allowances in the tender as no claims in this regards will be entertained.

### **Carried to Collection**

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	RAINWATER DISPOSAL				
	<u>"Watertite" seamless aluminium Ogee gutters with</u> powder coated finish				
А	150 x 125mm OGEE profile seamless gutters	m	7		
В	Extra over 150 x 125mm eaves gutter for stopped end	No	6		
С	Extra over 150 x 125mm eaves gutter for outlet for 110mm square profile pipe	No	6		
	Aluminium downpipes				
D	180mm Downpipe fixed complete in its entirety	m	6		
Е	Extra over downpipe for shoe	No	3		
F	Extra over downpipe for bend	No	3		
G	Extra over downpipe for swan-neck	No	3		
	SANITARY FITTINGS				
	Hand wash basin				
Η	"Rossco" (ROS-SHSQ627) white ceramic wall hung handwash basin size 450 x 450mm with waste & taphole, no overflow, installed with bottle trap, including 2 x 1/4 turn isolation valve on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ- LS-L00-170001-L-A and laboratory fit out specification document	No	7		
	Stainless steel sinks				
J	"Kwikot Arden Series" stainless steel single bowl sink (Type SSO-1200-SE) with 38mm waste, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
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	Ceramic sinks	Ĭ			
А	"VAAL" Vitreous china rectangular laboratory drop-on sink (code: 236100) size 600 x 400 x 200mm without overflow and a centre end waste outlet, fixed underneath of countertop using two adjustable underslung brackets (code 8109Z0) including 38mm Acid resistant waste (code 8791Z0), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	2		
	Epoxy Resin Laboratory Sink				
В	"Simmons" Single bowl drop-on single drainer epoxy resin sink (code: SEL16-DO) size 600 x 450 x 300mm deep with and including waste, including 2 x 1/4 turn isolation valve on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR- ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00- 110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and laboratory fit out specification document	No	1		
	Double Bowl Stainless Steel Pot Sink				
С	"Chilli-B" Double bowl pot sink (code: P2-1850-PB/ 2620482) grade 304 stainless steel 1,2mm thick with a 300mm high integral splash back and 50 x 10mm turn down with a beaded edge on the remaining sides, overall size 900 x 1850 x 650mm including 40mm waste outlet and stainless steel slatted under shelf and including 2 x 1/4 turn isolation valve per tap on hot and cold water supply line, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	Νο	1		
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"Broen Lab" handheld wall mounted double eye/face shower with bowl

A "Broen-Lab" handheld wall mounted double eye/face shower with bowl, bowl in brass and stainless steel 20mm female inlet at top of shower, eye wash bowl minimum working pressure 1.5 bar including a self draining shower head and bowl with integrated outlet including 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21\_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21\_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document

"Spilldoctor" wall mounted eye/face shower with bowl

B "Spilldoctor" wall mounted eye/face shower with bowl, bowl in stainless steel including two high-flow aerated water sprays at low pressure with automatic opening anti-dust cover, male inlet ISO 228 G1/2", eye wash bowl Minimum working pressure: 1.5 bar, 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21\_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21\_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document

## "Carlos Arboles" body and eye shower

C "Carlos Arboles" eye/face shower station, eyewash assembly and bowl in ABS plastic, galvanised steel piping and brass fittings including two high-flow aerated water sprays at low pressure with automatic opening anti-dust cover, eye wash bowl Minimum working pressure: 1.5 bar, 1 x 1/4 turn isolation valve on cold water supply line, complete as per architect's drawings: 21\_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21\_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21\_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document

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	Floor Drains and Traps				ĺ
A	"ACO Floor Drain & trap" (code: 405143) 50mm diameter floor drain with a flow rate of 1.2 litres per second, complete as per architect's drawings: 21_028- LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS- L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00- 170001-L-A and laboratory fit out specification document	No	7		
	BATHROOM FITTINGS				
	"Chilli-B" or similar approved				
В	"Chilli-B" Stainless steel wall mounted elbow action soap dispenser (code: CL0075), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
С	"Chilli-B" Satin grey plastic sanitary bin size 463 x 140 x 480mm high (code: FR-RODX605), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
D	"Chilli-B" Hand towel (code: F-STRX600), complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00- 110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
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	WASTE UNIONS ETC				
	"KWIKOT" or similar approved waste unions				
A	40mm "Kwikot" (Code : SSKIT-OCTI-1) or similar approved single bowl waste outlet, backnut, plug, chain and stay, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
	"Cobra" or similar approved waste unions				
В	40mm "Cobra" (Code : 310-40) or similar approved Chromium-plated copper waste outlet, backnut, plug, chain and stay, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR- ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ- LS-L00-170001-L-A and laboratory fit out specification document	No	11		
	TRAPS ETC				
	<u>Waste traps, etc, jointed to pipes as described including</u> necessary adaptors, et				
С	"Cobra" Bottle Trap (Code: 365/50P) (Type SF13) or similar approved including all spares tail pipe, cap nut, wall flange, etc, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
D	"Broen-Lab" Black Polypropylene bottle trap (Code: 97B0040) or similar approved including all spares tail pipe, cap nut, wall flange, etc, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001- L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	Νο	11		
	TAPS, VALVES, ETC				
E	15mm Angle valves on wall flanged with 350mm flexible hose connector	No	12		
	Corrigination				
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	"FRANKE" or similar approved				
A	"Franke Projectline Swivel Chrome" sink mixer (code: 115.0193.184) ceramic disk cartridge with anti-scold, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
	"Cobra" or similar approved				
В	"Cobra Cobra Ledim" Stop tap with sliding wall flange. 1/2BSP female iron connection ends (code: LO-228- 15/N), , complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
С	"Cobra" wall mounted elbow action medical mixer (code: FEAWALEA-OGT0050 (6002194030348)), with progressive temperature control and integral inlet regulating valves, adjustable inlet connections with wall flanges, under slung aerated cast swivel outlet 1/2"BSP male iron connection ends, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	4		
	"GROHE" or similar approved				
D	"GROHE Euroeco Special" Single lever safety basin mixer (Code: 32 789 000) mounted onto basin, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00- 110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	7		
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	"Carlos Arboles" or similar approved				
А	"Carlos Arboles" Mixer with Wrist Action Levers (code: 6157), cold and hot water mixer including wrist action lever, bench mounted, 150mm centres, removable nozzle, swivel swanneck, complete as per architect's drawings: 21_028-LTS-DR-ZZ-LS-L00-110001-L-A, 21_028-LTS-DR-ZZ-LS-L00-110002-L-A and schedule 21_028-LTS-DR-ZZ-LS-L00-170001-L-A and laboratory fit out specification document	No	2		
	ELECTRIC WATER HEATER				
	<u>"Zip HydroBoil" or similar approved Boiling water</u> <u>dispenser</u>				
В	"Zip HydroBoil" or similar approved Boiling water dispenser (HydroBoil) with 5L water capacity, size 318 x 150 x 460mm high, White Epoxy Powder Coated outer case (code: 2610008) plugged to wall over counter with and including sink drip tray, with and including two-way tap and twin-chamber technology, complete as per drawing : 2022_CSIR_A.03.1.2 and Architectural Specification Document	No	1		
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ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 14</u>				
	PAINTWORK				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	All colours to be selected by the architect				
	Only approved brands of paint shall be permitted				
	All painting measured generally will be in colours with a value of more than 7 on the Munsell system in accordance with the relevant SABS specification. Any painting in colours with a value of 7 or less on the Munsell system shall be given as paintwork in darker colours				
	Previously painted surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint Shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	PAINTWORK TO PREVIOUSLY PAINTED WORK				
	ON FLOATED PLASTER, ETC				
	Prepare, stop and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document				
А	On internal walls	m2	1,013		
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	Section 5.3: Main Contract Bill No. 14 Paintwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



	ON PLASTERBOARD				
	Prepare, stop and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document				
А	On gypsum board partitioning	m2	333		
	ON METAL				
	One coat Metal Primer (UC 501) and two coats 'Plascon Super Universal Enamel' or similar approved, in good condition all according to manufacturers specifications, complete as per Architectural Specification Document				
в	On windows	m2	59		
с	On balustrades	m2	34		
	PAINTWORK ON NEW WORK				
	ON FLOATED PLASTER				
	Prepare and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document				
D	On internal walls	m2	328		
Е	On external walls	m2	5		
	ON PLASTERBOARD				
	Prepare and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document				
F	On gypsum board ceilings	m2	64		
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A	Prepare, stop and apply one coat plaster primer (UC 56) and two coats "Plascon Wall & All" or similar, to be approved paint on surfaces in good condition, complete as per Architectural Specification Document On gypsum board partitioning ON WOOD	m2	579		
	One coat wood primer (UC 2) and one coat universal undercoat or similar approved and two coats "Plascon" Velvaglo paint or similar approved as per manufacturer's specification, complete as per Architectural Specification Document				
В	On backs of frames, skirtings, etc not exceeding 300mm wide	m	98		
с	Roof timbers	m2	55		
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	Section 5.3: Main Contract Bill No. 14 Paintwork CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



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Paintwork CSIR Future PHARMA Facility, Pretoria			
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ltem No		Unit	Quantity	Rate	Amount	
	<u>BILL NO. 15</u>					
	EXTERNAL WORK					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill					
	SUPPLEMENTARY PREAMBLES					
	Nature of the ground					
	The Tenderer shall acquaint himself by personal examination of the nature of the ground. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" and where conditions of a more difficult character are indicated these are separately measured					
	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					
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## SUPPLEMENTARY PREAMBLES

#### Cost of tests

The costs of making, storing and testing of concrete test cubes as required under Clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect (Test cubes are measured separately)

## **Formwork**

Descriptions 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

Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described formwork has been measured to the sides of all reinforced concrete in foundations and will be remeasured according to actual usage. However, 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"

#### **Carried to Collection**

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	THE FOLLOWING TO BE EXECUTED IN AND AROUND EXISTING BUILDING				
	EXCAVATIONS, ETC				
	Excavation in earth not exceeding 2m deep				
А	To reduce levels to final levels under floors, etc	m3	29		
В	Holes	m3	7		
	Prescribed density tests on filling				
С	"Modified AASHTO Density" test	No	6		
	Extra over all excavations for carting away				
D	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	7		
	Risk of collapse of excavations				
Е	Sides of trench and hole excavations not exceeding 1.5m deep	m2	29		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED				
	<u>15MPa/19mm concrete</u>				
F	Surface blinding under footings and bases	m3	1		
	REINFORCED CONCRETE				
	<u>30MPa/19mm concrete</u>				
G	Concrete Plinths	m3	10		
Н	Bases	m3	3		
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I					11	1
	TEST BLOCKS					
	Test blocks					
A	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes	No	17			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a power float					
В	Surface beds, slabs, etc	m2	98			
	FORMWORK					
	ROUGH FORMWORK (DEGREE OF ACCURACY II)					
	Rough formwork to sides					
С	Bases	m2	13			
D	Edges of surface bed panels, ramps, etc not exceeding 300mm high or wide	m	82			
	MOVEMENT JOINTS, ETC					
	Isolation joints with "Jointex" between vertical concrete surfaces					
Е	10mm Joints not exceeding 300mm high	m	22			
	Saw cut joints					
F	3 x 50mm Saw cut joints in top of concrete	m	29			
	Fabric reinforcement					
G	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	98			
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1				11
	<u>FILLING, ETC</u> Earth filling supplied by the contractor under pavings,			
	premix roads, etc			
A	Over site of G5 material in natural gravel subbase in accordance with SABS 1200 DM compacted to 95% Mod AASHTO density	m3	15	
	Compaction of surfaces			
В	Compaction of ground surface under pavings, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	98	
	FENCING, ETC			
	<u>Galvanised security fence with bitumen dipped steel</u> <u>standards and bitumen-aluminium painted (two coats)</u> <u>steel pipe posts, stays, gates, etc including galvanised</u> <u>steel bolts, straining eye bolts, etc, site clearance and</u> <u>preparation of ground</u>			
С	Gate of 30mm diameter SHS framing, 1 250 x 2 100m high vertically with both stiles extended at top, the vertical section covered with GMS mesh insert, including hinges, heavy duty lockable barrel bolt and brass five-pin tumbler padlock, as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-190001-T-A and 21_028-LTS-DR-ZZ-LS-L00-190002-T-A and Laboratory			
	Internal Architectural Specification Document	No	4	
D	50mm Diameter SHS post 2 100mm long, including fixing complete in its entirety to plinth, as per the architect's drawing: 21_028-LTS-DR-ZZ-LS-L00-190001- T-A and 21_028-LTS-DR-ZZ-LS-L00-190002-T-A and Laboratory Internal Architectural Specification			
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A	SUB SOIL DRAINAGEWaterproofed concrete and brick sump chamber including stepping irons, 600 x 900mm heavy duty cover and frame complete in its entiretyExcavate for and build sump chamber overall size 1 000 x 1 000 x 1 835mm, exceeding 1 000mm deep and not				
	exceeding 2 000mm deep internally, including cast in- situ cover slab, brickwork, 150mm concrete base, building pipes through sides, etc	No	1		
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ltem No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 16</u>				
	BUDGETARY ALLOWANCES				
	The following net sums are for work to be executed by the principal contractor and or specialists and or domestic sub-contractors and will be measured on completion and priced in terms of the contract as directed by the principal agent and deducted in whole or part if not required				
	BOXING IN STEEL GANTRY BEAM				
A	Allow the budgetary amount of R105,000.00 (One Hundred and Five Thousand Rand and Zero Cents) NET for boxing in the steel gantry beam on the first floor at the Biopharmaceutical Facility to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		105,000.00
	BUILDERS WORK				
В	Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand and Zero Cents) NET for unforeseen builders work and alterations for the Small Molecule Facility to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		50,000.00
С	Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for unforeseen builders work and				50,000.00
	alterations for the Biopharmaceutical to be used as directed by the Principal Agent and deducted in whole or in part if not required		Item		50,000.00
	Carried to Collection			R	
	Section 5.3: Main Contract Bill No. 16 Budgetary Allowance CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0				



## FIRE PAINT TO EXPOSED STRUCTURAL STEEL

A Allow the budgetary amount of R150,000.00 (One Hundred and Fifty Thousand Rand and Zero Cents) NET for painting exposed structural steel members with intumescent paint at the Biopharmaceutical Facility, to be used as directed by the Principal Agent and deducted in whole or in part if not required

## FIRE SEALANT

B Allow the budgetary amount of R25,000.00 (Twenty Five Thousand Rand) NET for the fire sealant of existing laboratory facilities to be used as directed by the Principal Agent and deducted in whole or in part if not required

## MAKING NEAT

C Allow the budgetary amount of R15,000.00 (Fifteen Thousand Rand) NET for making neat to the administrative areas to be used as directed by the Principal Agent and deducted in whole or in part if not required

## **RE-LOCATE SOUND BARRIER**

- D Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for removing the sound barrier including structural steel work, concrete plinths, etc and installing paving with layerworks complete as directed by the Principal Agent and deducted in whole or in part if not required
- E Allow the budgetary amount of R25,000.00 (Twenty Five Thousand Rand) NET for the lifting / cranage, moving & storing of big equipment during construction as directed by the Principal Agent and deducted in whole or in part if not required

### **Carried to Collection**

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Item		150,000.	00
Item		25,000.	00
Item		15,000.	00
Item		50,000.	00
Item		25,000.	00
	R		



1	SEALING EXISTING WINDOWS			
A	Allow the budgetary amount of R50,000.00 (Fifty Thousand Rand) NET for the sealing of existing windows and doors to laboratory areas to be used as directed by the Principal Agent and deducted in whole or in part if not required	Item		50,000.00
	STEEL STEP			
В	Allow the budgetary amount of R5,000.00 (Five Thousand Rand and Zero Cents) NET for a steel step on the first floor at the Biopharmaceutical Facility, to be used as directed by the Principal Agent and deducted in whole or in part if not required	Item		5,000.00
	SUMP PUMP			
С	Allow the budgetary amount of R10,000.00 (Ten Thousand Rand and Zero Cents) NET for Sump Pump, to be used as directed by the Principal Agent and deducted in whole or in part if not required	Item		10,000.00
	Carried to Collection		R	
	Section 5.3: Main Contract Bill No. 16 Budgetary Allowance CSIR Future PHARMA Facility, Pretoria 21511-20-01-0- Main Contractor's BOQ Rev 0			



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Budgetary Allowance			
COLLECTION			
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7	Ceilings, partitions, etc	52	
8	Floor coverings, etc	56	
9	Structural Steelwork	62	
10	Metalwork	67	
11	Plastering	70	
12	Tiling	73	
13	Plumbing & Drainage	86	
14	Paintwork	90	
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