

[illegible]

**Bill No. 01 : Fire Fighting Equipment**

BUILDINGS: CSIR

(Note : These prices shall be firm and not subject to price adjustment)

1	PROVISIONAL AND GENERAL ITEMS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
1.1	Site Establishment					
1.2	Loading and off loading of material and equipment.	sum	1			
1.3	Setting out of Works, according to specification	sum	1			
1.4	Cleaning of site upon completion of contract	sum	1			
1.5	Detailed Works Programme according to Engineer's specifications	sum	1			
1.6	Development of workshop drawings, as specified	sum	1			
1.7	"As-built" drgs in CAD format, as specified	nr	3			
1.8	Operating and Maintenance Manuals	nr	3			
1.9	12-month Maintenance and Guarantee	sum	1			
1.10	Proving pressure at flow water test	nr	1			
1.11	Health and Safety Representative	sum	1			
1.12	P&G's as per Main Contractor's conditions	sum	1			
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2.1	FIRE MAINS AND TWIN BOOSTER CONNECTION	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<i>All equipment as per SABS approved standards:</i>					
	<i>All costs for connecting, delivery, fittings, connections, bends, junctions and hanging materials to be included.</i>					
2.1.1	booster connection, twin brass 100mm, incl. caps and chains	no	0			
2.1.2	valve, non return 100mm	no	0			
2.1.3	valve, butterfly 100mm	no	0			
2.1.4	Excavate for, locate and cut into existing municipal mains water supply to form connection to new 110mm HDPE fire water supply, incl. backfilling and ramming	lot	0			
2.1.5	water meter for hydrant/hose reel system	no	0			
2.1.6	below ground pipe, HDPE 110mm, solvent welded pressure fittings, incl. trenching and backfilling not exceeding 1m deep	m	0			
2.1.7	below ground pipe, HDPE 110mm, solvent welded pressure fittings, incl. trenching and backfilling not exceeding 2m deep	m	0			
2.1.8	pipe, med m/s 150mm	m	0			
2.1.9	pipe, med m/s 100mm	m	0			
2.1.10	painting 150mm pipe, as per specification	m	0			
2.1.11	painting 100mm pipe, as per specification	m	0			
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2.2	FIRE HYDRANTS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<i>All equipment as per SABS approved standards.</i>					
	<i>All costs for connecting, delivery, fittings, connections, bends, junctions and hanging materials to be included.</i>					
2.2.1	hydrant landing valve, brass 100mm, incl cap and chain	no	0			
2.2.2	pressure gauge, 100mm diameter glycerine filled 1000kPA, incl. stopcock	no	0			
2.2.3	below ground pipe, HDPE 110mm, solvent welded pressure fittings, incl. trenching and backfilling not exceeding 1m deep	m	0			
2.2.4	below ground pipe, HDPE 110mm, solvent welded pressure fittings, incl. trenching and backfilling not exceeding 2m deep	m	0			
2.2.5	pipe, hydrant trunk main, med m/s 150mm	m	0			
2.2.6	pipe, hydrant trunk main, med m/s 100mm	m	0			
2.2.7	Unreinforced concrete hydrant pedestal 600mm above natural ground level, cast around vertical pipe with bottom 300mm below ground. 300mmx300mm square at base, tapering to octagonal shaped top 200x200mm overall on 420x420x280mm deep base, incl excavation, formwork and 2 x coats of paint to exposed surfaces	no	0			
2.2.8	1000x800mm fire supply valve chamber, comprising brick chamber exceeding 750mm but not exceeding 1000mm deep internally, with cast iron cover and frame size 450x60mm (type CCP)	no	0			
2.2.9	thrust block, 110mm tee, incl excavation, concrete, formwork, backfilling and ramming	no	0			
2.2.10	thrust block, 110mm 90deg bend, incl excavation, concrete, formwork, backfilling and ramming	no	0			
2.2.11	painting 150mm pipe, as per specification	m	0			
2.2.12	painting 100mm pipe, as per specification	m	0			
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2.3	FIRE HOSE REELS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<i>All equipment as per SABS approved standards.</i>					
	<i>All costs for connecting, delivery, fittings, connections, bends, junctions and hanging materials to be included.</i>					
2.3.1	fire hose reel, c/w 30m hose to EN694 standard, incl. chromium plated stopcock, shut-off nozzle and wall bracket	no	4			
2.3.2	pressure gauge, 100mm diameter glycerine filled 1000kPA, incl. stopcock	no	4			
2.3.3	weatherproof fire hose reel cabinet	no	0			
2.3.4	pipe, med m/s 80mm	m	0			
2.3.5	pipe, med m/s 65mm	m	0			
2.3.6	pipe, med m/s 50mm	m	0			
2.3.7	pipe, med m/s 40mm	m	0			
2.3.8	pipe, med m/s 32mm	m	50			
2.3.9	pipe, med m/s 25mm	m	20			
2.3.10	painting 80mm pipe, as per specification	m	0			
2.3.11	painting 65mm pipe, as per specification	m	0			
2.3.12	painting 50mm pipe, as per specification	m	0			
2.3.13	painting 40mm pipe, as per specification	m	0			
2.3.14	painting 32mm pipe, as per specification	m	50			
2.3.15	painting 25mm pipe, as per specification	m	20			
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2.4	PORTABLE FIRE EXTINGUISHERS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<i>All extinguisher as per SABS approved standards. Extinguishers to be provided each with 25mm thick meranti backing board min. size 150 x 700mm, plugged and screwed to brickwork and all exposed edges bevelled, incl. 1 x coat primer and 2 x coats Signal Red enamel paint. Mounting brackets to be approved in accordance with SABS 810.</i>					
2.4.1	extinguisher, 4,5kg DCP	no	4			
2.4.2	extinguisher, 9kg DCP	no	0			
2.4.3	extinguisher, 5kg CO2	no	4			
2.4.4	extinguisher, 10kg CO2	no	0			
2.4.5	weatherproof extinguisher cabinet for 2-off exting.	no	0			
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3	TESTING AND COMMISSION	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
3.1	Testing and commission, incl. all labour	Lot	1			
3.2	ASIB Inspection	Lot	1			
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SUMMARY OF BILLS OF QUANTITIES		
Section No	DESCRIPTION	TOTAL
1	Provisional and General items	
2	Fire Fighting Installation	
3	Testing and Commission	
	Contingency: Works as Yet Unforeseen and Unknown	R 10 000.00
TOTAL FOR FIRE FIGHTING COMPLETE INSTALLATION (excl.VAT)		
TOTAL FOR FIRE FIGHTING COMPLETE INSTALLATION CARRIED FORWARD (excl.VAT)		



**Bill No. 02 : Statutory Signage**

BUILDINGS: CSIR

(Note : These prices shall be firm and not subject to price adjustment)

1	PROVISIONAL AND GENERAL ITEMS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
1.1	Loading and off loading of material and equipment.	sum	1			
1.2	Setting out of Works, according to specification	sum	1			
1.3	Cleaning of site upon completion of contract	sum	1			
1.4	Detailed Works Programme according to Engineer's specifications	sum	1			
1.5	Operating and Maintenance Manuals	nr	3			
1.6	12-month Maintenance and Guarantee	sum	1			
1.7	Health and Safety Representative	sum	1			
1.8	P&G's as per Main Contractor's conditions	sum	1			
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2	STATUTORY SIGNAGE	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<i>Supply and installation of aluminium framed SABS 1186 approved photoluminescent type signage, incl. fixing, as detailed below:</i>					
2.1.1	<b>running man + down arrow</b> - Code E3 - single sided, 190 x 190mm - white lettering - green background	no	10			
2.1.2	<b>running man + left arrow</b> - Code E2 - single sided, 190 x 190mm - white lettering - green background	no	4			
2.1.3	<b>running man + right arrow</b> - Code E1 - single sided - white lettering - green background	no	2			
2.1.4	<b>hydrant + hose reel + down arrow</b> - Code F1 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.5	<b>hydrant + hose reel + left arrow</b> - Code F2 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.6	<b>hydrant + hose reel + right arrow</b> - Code F3 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.7	<b>hose reel + extinguisher + down arrow</b> - Code F4 - single sided, 190 x 190mm - red lettering - white background	no	4			
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<i>cont.</i>	<b>STATUTORY SIGNAGE</b>	<b>Unit</b>	<b>QTY</b>	<b>Supply Unit Rate</b>	<b>Installation Unit Rate</b>	<b>Amount</b>
2.1.8	<b>hose reel + extinguisher + left arrow</b> - Code F5 - single sided, 190 x 190mm - red lettering - white background	no	4			
2.1.9	<b>hose reel + extinguisher + right arrow</b> - Code F6 - single sided, 190 x 190mm - red lettering - white background	no	4			
2.1.10	<b>hydrant + hose reel + down arrow</b> - Code F7 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.11	<b>hydrant + hose reel + left arrow</b> - Code F8 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.12	<b>hydrant + hose reel + right arrow</b> - Code F9 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.13	<b>extinguisher + down arrow</b> - Code F13 - single sided, 190 x 190mm - red lettering - white background	no	0			
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<i>cont.</i>	STATUTORY SIGNAGE	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
2.1.14	<b>extinguisher + left arrow</b> Code F16 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.15	<b>extinguisher + right arrow</b> - Code F19 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.16	<b>hose reel + down arrow</b> - Code F14 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.17	<b>hose reel + left arrow</b> - Code F17 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.18	<b>hose reel + right arrow</b> - Code F17 - single sided, 190 x 190mm - red lettering - white background	no	0			
2.1.19	<b>FIRE EXIT KEEP CLEAR</b> - Code F45 - green lettering - white background	no	4			
2.1.20	<b>Internally Illuminated EXIT Signage</b> - 60min battery back-up - green lettering - white background - min. 100mm high lettering - complete with test button - SABS mark must be indicated	no	0			
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SUMMARY OF BILLS OF QUANTITIES		
Section No	DESCRIPTION	TOTAL
1	Provisional and General items	
2	Statutory Signage Installation	
	Contingency: Works as Yet Unforeseen and Unknown	R 2 500.00
TOTAL FOR STATUTORY SIGNAGE INSTALLATION (excl.VAT)		
TOTAL FOR STATUTORY SIGNAGE INSTALLATION CARRIED FORWARD (excl.VAT)		

**Bill No. 03 : Fire Sealing**

BUILDINGS: CSIR

(Note : These prices shall be firm and not subject to price adjustment)

1	PROVISIONAL AND GENERAL ITEMS	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
1.1	Loading and off loading of material and equipment.	sum	1			
1.2	Setting out of Works, according to specification	sum	1			
1.3	Cleaning of site upon completion of contract	sum	1			
1.4	Detailed Works Programme according to Engineer's specifications	sum	1			
1.5	12-month Maintenance and Guarantee	sum	1			
1.6	Health and Safety Representative	sum	1			
1.7	P&G's as per Main Contractor's conditions	sum	1			
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2	FIRE SEALING	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
	<p><i>The Tenderer's attention is drawn to the Standard Conditions of Sub-Contract applicable to this contract for his responsibilities in regard thereto.</i></p> <p><i>Tenderers shall supply all materials, tools and labour necessary for installation of the gap and fire seals, to provide complete and fully functional installations.</i></p> <p><i>30, 60 or 120-min fire and smoke rated seals to gaps between brick walls and concrete soffits or columns shall be provided with material as per the Engineers approved specification and details.</i></p>					
2.1	<b>Nullifire M701 fire rated acrylic fire and smoke rated gap seals, or similar approved and certified product, horizontally along top of walls</b>					
2.1.1	0-25mm Thick 30-min seals	m	30			
2.1.2	0-25mm Thick 60-min seals	m	70			
2.1.3	0-25mm Thick 120-min seals	m	0			
2.2	<b>Nullifire M701 acrylic fire rated mastic fire and smoke rated gap seals, or similar approved and certified product, vertically between brick walls and concrete columns</b>					
2.2.1	0-25mm Thick 30-min seals	m	0			
2.2.2	0-25mm Thick 60-min seals	m	0			
2.2.3	0-25mm Thick 120-min seals	m	0			
2.3	<b>KBS' panel seal and 'Flamastic' coating or other equal and approved fire and smoke rated penetration seals through slabs</b>					
2.3.1	110mm Diameter 60-min uPVC pipe sleeves	no	5			
2.3.2	110mm Diameter 120-min uPVC pipe sleeves	no	0			
2.3.3	160mm Diameter 60-min uPVC pipe sleeves	no	0			
2.3.4	160mm Diameter 120-min uPVC pipe sleeves	no	0			
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cont.	FIRE SEALING	Unit	QTY	Supply Unit Rate	Installation Unit Rate	Amount
<b>2.4</b>	<b>60-min Fire wrapping of electrical cabling penetrations through brick walls</b>					
2.4.1	Dia 20 mm cable	m	2			
2.4.2	Dia 40 mm cable	m	2			
2.4.3	Dia 80 mm cable	m	0			
<b>2.5</b>	<b>120-min Fire wrapping of electrical cabling penetrations through brick walls</b>					
2.5.1	Dia 20 mm cable	m	0			
2.5.2	Dia 40 mm cable	m	0			
2.5.3	Dia 80 mm cable	m	0			
<b>2.6</b>	<b>Panel seals to service shafts</b>					
2.6.1	30-min seals	sqm	0			
2.6.2	60-min seals	sqm	5			
2.6.3	120-min seals	sqm	0			
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SUMMARY OF BILLS OF QUANTITIES		
Section No	DESCRIPTION	TOTAL
1	Provisional and General items	
2	Fire Sealing Installation	
	Contingency: Works as Yet Unforeseen and Unknown	R 5 000.00
TOTAL FOR FIRE SEALING COMPLETE INSTALLATION (excl.VAT)		
TOTAL FOR FIRE SEALING COMPLETE INSTALLATION CARRIED FORWARD (excl.VAT)		



**Bill  
No**

Amount

## 5.8 Fire Bills of Quantities

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Main Contractors percentage for all mark-ups, attendance, etc on specialist domestic contractor

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**Carried Forward To Section 5.10 : Final Summary**

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## CSIR Future PHARMA Facility