

Appendix A – LMB – MRC Equipment Listing

3.04 - Fire & Alarms LMB & MRS				
Fire alarm	Fire alarm panel, smoke detectors, sounders & break glass units	MRS Building	1	Twice a year out of normal hrs
		LMB Building		
Fire alarm	Fire alarm panel - main panel & mimic	1A040 Main Entrance	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	1S288 Zone C Level 1 corridor	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	1S168 Zone C Level 1 corridor	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	2S284 Zone C Level 2 core	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - repeater panel & mimic	3S284 Zone C Level 3 core	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	1N298 Zone J Level 1 corridor	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	1N168 Zone J Level 1 corridor	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	2N164 Zone J Level 2 core	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - repeater panel & mimic	3N164 Zone J Level 3 core	1	Twice a year out of normal hrs
Fire alarm	Fire alarm panel - slave panel & mimic	1Z072 Zone M Level 1 corridor	1	Twice a year out of normal hrs
Fire alarm	Sensor - multi-sensor detector	Throughout building	408	Twice a year out of normal hrs
Fire alarm	Sensor - heat / strobe / speech	Throughout building	34	Twice a year out of normal hrs
Fire alarm	Sensor - heat	Throughout building	20	Twice a year out of normal hrs
Fire alarm	Sensor - combined sensor / detector / sounder / LED strobe	Throughout building	1338	Twice a year out of normal hrs
Fire alarm	Sensor - beam detector	Throughout building	10	Twice a year out of normal hrs
Fire alarm	Sensor - duct mounted detector	Throughout building	17	Twice a year out of normal hrs
Fire alarm	Sensor - manual call point	Throughout building	251	Twice a year out of normal hrs
Fire alarm	Indicator - strobe / sounder / speech	Energy Centre	7	Twice a year out of normal hrs
Fire alarm	Indicator - strobe / sounder	Throughout building	26	Twice a year out of normal hrs
Fire alarm	Indicator - stand alone LED strobe	Throughout building	60	Twice a year out of normal hrs
Fire alarm	Interface	Throughout building	121	Twice a year out of normal hrs
Fire alarm	Radio pager - base station amplifier	2N160 & S290 Mounted in riser Level 2	2	Twice a year out of normal hrs

Fire alarm	Radio pager - units	Issued to individual staff	20	Twice a year out of normal hrs
Fire alarm	Auto-dialler	Zone K(ISV) Level 1 mounted above Main Panel	1	Twice a year out of normal hrs
Fire alarm	Door holder - electromagnetic catch	Throughout building on corridor fire/smoke doors	127	Twice a year out of normal hrs
Fire alarm	Panel key - Gent Southco PAT.4.827.811	Fire alarm mimic panel	5	Twice a year out of normal hrs
Fire alarm	Panel key - Gent Camlock 550	Fire alarm panel	5	Twice a year out of normal hrs
Fire alarm	Panel key - Gent Camlock 550	Fire alarm battery panel	5	Twice a year out of normal hrs
Fire alarm	Test key	N/A	10	
3.18 - Gas Suppression				
Fire Suppression	Control Panel - self-contained alarm / gas release control panel	2N255, 1N286, 1N104, 1S141 & 1S131	5	Twice a year
Fire Suppression	Ionisatoin & Optical Smoke Detectors - mounted in ceilings & ceiling void	2N225, 1N286, 1N104, 1S141 & 1S131	26	Twice a year
Fire Suppression	Alarm Sounder - electronic, ceiling mounted, 1st stage, loop powered	2N255, 1N286, 1N104, 1S141 & 1S132	5	Twice a year
Fire Suppression	Alarm Sounder - electronic, wall mounted bell, 2nd stage, gas release warning	2N225, 1N286, 1N104, 1S141 & 1S132	5	Twice a year
Fire Suppression	Gas Cylinder - stand mounted, containing UG-55 at 300 bar	Interstitial void above each protected area	5	Twice a year
Fire Suppression	Gas Cylinder - stand mounted, containing UG-55 at 200 bar	Interstitial void above each protected area	3	Twice a year
Fire Suppression	Actuator Valve - electronic, cylinder mounted	On each master cylinder	5	Twice a year
Fire Suppression	Slave Valve - mounted, secondary cylinder	On each secondary cylinder	5	Twice a year
Fire Suppression	Nozzle - gas discharge nozzle	In each protected area	7	Twice a year
Fire Suppression	Odouriser	Adjacent to gas storage bottles	5	Twice a year
Fire Suppression	Damper - pressure relief damper to limit room pressure, set at 200 Pa	In each protected area	5	Twice a year
Fire Suppression	Panel Key - Kentec Camlock 809 panel door key	On each fire suppression control panel	5	Twice a year

Fire Suppression	Panel Key - Kentec Camlock 901 panel door key	On each fire suppression control panel	5	Twice a year
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System Type	Item Type	Location	Quantity	Frequency
2.06 - Single Skin Curtain Walling				
Smoke Vents	Clerestory Vent Actuators	Clerestory to blocks H, J, K & D		Yearly
2.09 - Rolling Shutters				
Roller Shutters	Rollashield 70 Steel Roller Shutter	Restaurant	1	Yearly
Roller Shutters	Armaroll CE80 Aluminium Roller Grille	Stores Despatch	2	Yearly
Roller Shutters	Rollashield 100S High Security Insulated Steel Roller Shutter	Main Stores	1	Yearly
2.40 - Blind Controls Smoke Clearance				
Smoke Vents	60A Switchable PSU Panel (600 x 600 x 250)	Local to clerestorey smoke vents	5	Yearly
Smoke Vents	OS2 Controller Type 21 300 x263 x120 C/W 2.1 AH BATTs	Local to staircases	4	Yearly
Smoke Vents	OSO Fireman's override switch	Local to all staircases and clerestorey smoke vents	12	Yearly
Smoke Vents	OS2 Controller Type 23 8A 356 c332 c120 C/W 7AH BATTs	Local to roof access hatches	4	Yearly
Smoke Vents	Key switch 3 position fixed	Local to roof access hatches	4	Yearly
3.01 - HV Power Distribution				
Incoming HV, etc.	RMU - free standing 11kV	Energy Centre Room 1Z112	1	Yearly
Incoming HV, etc.	RMU - free standing 11kV	Energy Centre Room 1Z180	1	Yearly
Incoming HV, etc.	VCB - withdrawable 11kV 630A (UK PowerNetworks feed)	Energy Centre MV Switchroom	1	Yearly
Incoming HV, etc.	VCB - withdrawable 11kV 630A (CUHT feed)	Energy Centre MV Switchroom	1	Yearly
Incoming HV, etc.	Bus-coupler - 11kV 630A VCB	Energy Centre MV Switchroom	1	Yearly
Incoming HV, etc.	VCB - 630A feed to 11kV ring main	Energy Centre MV Switchroom	1	Yearly
Incoming HV, etc.	VCB - 630A feed to 11kV ring main	Energy Centre MV Switchroom	1	Yearly
Incoming HV, etc.	Key Operated Lock - on power supplies to MV switchboard	Energy Centre MV Switchroom	1	Yearly

Incoming HV, etc.	RMU - free standing external rated (IP54) feeding transformer EC2	Energy Centre External Compound Pen 1	1	Yearly
Incoming HV, etc.	RMU - free standing external rated (IP54) feeding transformer B2	Energy Centre External Compound Pen 1	1	Yearly
Incoming HV, etc.	RMU - free standing external rated (IP54) feeding transformer EC1	Energy Centre External Compound Pen 2	1	Yearly
Incoming HV, etc.	RMU - free standing external rated (IP54) feeding transformer B1	Energy Centre External Compound Pen 2	1	Yearly
Incoming HV, etc.	Protection Relay - self-powered multi-function	On each VCB	5	Yearly
Incoming HV, etc.	Battery Charger - mains powered for MV switchgear	Energy Centre MV Switchroom	2	Yearly

Note ; Companies should be Honeywell fire systems certified and be able to undertake necessary system modifications and software changes without the need to sub-contract to external 3rd party specialist suppliers

LMB Site wide automatic lighting system

Maintenance quarterly and software modifications on an as required basis

1 x HV transformer location sub 1

BMS PPM Schedule 2 days per week

1 x Ansul Kitchen Hood Fire Suppression System

LMB Mains Fed Water Dispensers

Ser no 25567	13012787	1ST FLR ABOVE RECEPTION	Yearly Service
Ser no 26451	13012783	RECEPTION	Yearly Service

Annual inspection of Dry riser systems throughout LMB

Annual inspection of Fall suppression systems on roof of LMB building

Latchway safety system		Blocks A1,A2,J1 & C1 (Plus kalzip roof)	5	Annually
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Annual inspection of Lightning protection systems at LMB building

LMB Annual servicing of:

3 x Oil Separators

1 x Pumping Station

LMB ZIP HOT & Cold water dispensers

Location	Product	Serial No	Breakdown cover	2 Monthly Scale Management	2 Monthly Filter change & Sanitising
3N161	BC160/125+	2011 081230013	YES	YES	YES
3S291	BC160/125+	2011 081230014	YES	YES	YES
2N285	BC160/125+	2011 081230018	YES	YES	YES
			Breakdown cover	3 Monthly Scale Management	3 Monthly Filter change & Sanitising
2N161	BC160/125+	2011 080130095	YES	YES	YES
2S175	BC160/125+	2011	YES	YES	YES

		080130095			
2S291	BC160/125+	2011 081230010	YES	YES	YES
2nd Floor Media prep staff	BC160/125+	2011 081230085	YES	YES	YES
1S291	BC160/125+	2011 110430024	YES	YES	YES
			Breakdown cover	6 Monthly Scale Management	6 Monthly Filter change & Sanitising
1S095	BC160/125+	2011 080130097	YES	YES	YES
2nd floor breakout	BC160/125+	2011 080130098	YES	YES	YES
3N285	BC160/125+	2011 081230002	YES	YES	YES
1N161	BC160/125+	2011 081230015	YES	YES	YES
Ground Floor H&S	BC160/125+	2011 081230016	YES	YES	YES
Vis Aids 3A382	BC160/125+	2011 110430023	YES	YES	YES
2nd Floor breakout	BC160/125+	2011 110430026	YES	YES	YES
2nd Floor HR 2A405	BC160/125+	2011 112530026	YES	YES	YES
2nd Floor HR 2A405	BC160/125+	2011 112530026	YES	YES	YES
3rd Floor meeting room	BC160/125+	2011 112530029	YES	YES	YES
2nd Floor Director 2A372	BC160/125+	2011 112530036	YES	YES	YES

Ground Floor Near Library	BC160/125+	2012 072430096	YES	YES	YES
Reception Kitchen	BC160/125+	2012 072430099	YES	YES	YES
Ground floor Library 1A340	BC160/125+	2012 072530004	YES	YES	YES
Break out AREA	BC160/125+	2011 110430026	YES	YES	YES
2N060	BC160/125+	2012 072530002	YES	YES	YES

LMB - 1500 TROX VAV (Viable Air Volume) boxes – Software support required on a as required call off basis

LMB - Automatic Window blinds

Annually

A KNX / Tridium certified engineer and a Blind Control Optimisation Specialist to carry out a functional test of all control components (blinds and motors not included) and review the system

LMB - Oxygen Depletion Alarms Systems

Oxygen depletion alarms	Various	56	Twice a year
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2 x Oxygen depletion systems in underground service tunnels

LMB - Power Factor Correction units

ARES Building

Fire Alarm Details

Gent Vigilon

MRC Ares Building

Equipment	Quantity
Control Panels	2
P.A Amplifier	1
Emergency Back-up Battery supply	1
Stratos High Sensitivity Smoke Detector	1
Sounder/beacon - both	26
Control interface	69
Breakglass Unit	24
Heat Detector	202
Multi Sensor	173
Reports Total	494
Kentec Sigma XT Gas Suppression Fire Alarm Control Panel	1
Apollo Optical Smoke Detectors	2
Appollo Ionisation Smoke Detectors –	2
Status Unit	1
Manual Gas Release Call Point 1-6” Bell	1
Flashing Red Beakon	1
Hold Off Buttons	2
Gent 4 Channel Interface	1
Inergen Cylinders	3
Solenoid	1
Manual Actuator	1
Pressure Switch	1
Discharge Pipework and fittings	1

High Voltage Equipment Details

2 no. Oil Cooled 1500KVA Transformers
2 no. Close Coupled L&C GF3 Oil CircuitBreakers

Intruder Equipment details

3 control panels
29 Doors protected by door proximity contacts
1 special access door, with duress programming – forming part of Anti-Terrorist protection
Panic Alarm at reception

Alarm generated to on-site Security via multiplexer (multiplexer maintained by others)

Ligo Lighting System - Dali

Fully Automated lighting system providing:

- 1) Automatic emergency light testing and diagnostics
- 2) Dawn to dusk lighting to scientific spaces will lux level control, and alarm system
- 3) PIR control on corridor, and change facilities

9 ligo control units
Web based head end for access and control
External access for Specialist back-up, on call support

Building UPS

MRC Ares Building

Equipment Details –

Somomec – Masterys MC

40Kva UPS

Mains – UPS change-over panel

MRC Ares Building

Equipment –

Lightning Protection

BMS

MRC Ares Building

Equipment -

Trend 963 BMS

Oxygen Monitoring Sensors and signal PCB's replaced on a bi-annual programme.

Next due Nov 2017

X 22 in E Areas

X 22 in T Areas

Office fan coil units x 12

Building fall protection system on roof
Rented Cooler Aid water Dispenser's

1 x hot water boiler for drinks (Kitchen)

2 x mains fed water coolers (staff room and reception)

2 x bench mounted water coolers with 12L water bottles (supplied every two weeks with water and cups, invoiced once delivered) (Blue and green corridors)

3 x floor standing water coolers with 19L water bottles (supplied every two weeks with water and cups, invoiced once delivered) (E&F, services area and quarantine)

Quarterly sanitising of the floor standing machines and annually for the filter change of the hot water boiler and mains fed water.