

PERIODIC INSPECTION REPORT  
(BS 7671:2008 as amended)

292623 - Macfar

**DETAILS OF THE CLIENT**

|                        |                          |         |  |
|------------------------|--------------------------|---------|--|
| Client                 | Kensington & Chelsea TMO | Address | Charles house<br>375 Kensington high street<br>London<br>W14 8QH |
| Purpose of this report | Clients request          |         |  |

**DETAILS OF THE INSTALLATION**

|                                   |   |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
| Occupier                          | Kensington and Chelsea TMO  | Description of premises  | Domestic <input checked="" type="checkbox"/> | Commercial <input checked="" type="checkbox"/> | Industrial <input checked="" type="checkbox"/> |
| Address                           | Grenfell tower<br>Grenfell tower<br>Grenfell road<br>Lancaster west estate<br>London<br>W11 1TG | Other  | Communal areas                               |  |  |
|                                   |   | Estimated age of the electrical installation                                     |  | 12   | yrs  |
|                                   |   | Evidence of alterations or additions   | <input checked="" type="checkbox"/>          | If yes estimated age                           | N/A yrs  |
| Date of previous inspection       | Not Known   | Electrical Installation Certificate No or previous Periodic Inspection Report No | N/A  |  |  |
| Records of installation available | <input checked="" type="checkbox"/>   | Records held by  | N/A  |  |  |

**EXTENT AND LIMITATIONS OF THE INSPECTION**

Extent of electrical installation covered by this report

FIXED WIRING AND FUSE BOARDS

Agreed limitation of the inspection and testing

All areas of no access

This inspection has been carried out in accordance with BS7671:2008(IEE Wiring Regulations), as amended. Cables concealed within trunking and conduits, or cables and conduits concealed under floors, in roof space and generally within the fabric of the building or underground have not been inspected.

**DECLARATION**

I/We, being the person(s) responsible for the inspection and testing of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing, hereby declare that the information in this report, including observations overleaf and the attached schedules, provide an accurate assessment of the condition of the electrical installation taking into account the stated extent of the installation and the limitations of the inspection.

|  |                   |                                   |                |
|--|-------------------|-----------------------------------|----------------|
| INSPECTION, TESTING AND ASSESSMENT BY: |                   | REPORT REVIEWED AND CONFIRMED BY: |                |
| Signature                              | <i>M Chessher</i> | Signature                         | <i>D Stead</i> |
| Name                                   | M.Chessher        | Name                              | D STEAD        |
| Position                               | ENGINEER          |                                   |                |
| Date                                   | 02/04/2010        | Date                              | 04/05/2010     |





| SCHEDULE OF ITEMS INSPECTED                       |  | † see note below   |  |
|---|--|--|--|
| <b>PROTECTIVE MEASURES AGAINST ELECTRIC SHOCK</b> |  | <b>Prevention of mutual detrimental influence</b>          |  |
| <b>Basic and fault protection</b>                 |  | <input checked="" type="checkbox"/>                        | Proximity of non-electrical services and other influences  |
| <input checked="" type="checkbox"/>               | SELV   | <input checked="" type="checkbox"/>                        | Segregation of Band I and Band II circuits or Band II insulation used.   |
| <input type="checkbox"/>                          | PELV   | <input type="checkbox"/>                                   | Segregation of Safety Circuits   |
| <input type="checkbox"/>                          | Double or Reinforced insulation  | <b>Identification</b>                                      |  |
| <b>Basic protection</b>                           |  | <input checked="" type="checkbox"/>                        | Presence of diagrams, instructions, circuit charts and similar information   |
| <input checked="" type="checkbox"/>               | Insulation of live parts   | <input checked="" type="checkbox"/>                        | Presence of danger notices and other warning notices   |
| <input checked="" type="checkbox"/>               | Barriers or enclosures   | <input checked="" type="checkbox"/>                        | Labelling of protective devices, switches and terminals  |
| <input type="checkbox"/>                          | Obstacles **   | <input checked="" type="checkbox"/>                        | Identification of conductors   |
| <input type="checkbox"/>                          | Placing out of reach **  | <b>Cables and Conductors</b>                               |  |
| <b>Fault protection</b>                           |  | <input checked="" type="checkbox"/>                        | Selection of conductors for current-carrying capacity and voltage drop   |
| <b>Automatic disconnection of supply</b>          |  | <input checked="" type="checkbox"/>                        | Erection methods   |
| <input checked="" type="checkbox"/>               | Presence of earthing conductor   | <input type="checkbox"/>                                   | Routing of cables in prescribed zones  |
| <input checked="" type="checkbox"/>               | Presence of circuit protective conductors  | <input checked="" type="checkbox"/>                        | Cables incorporating earthed armour or sheath or run in an earthed wiring system, or otherwise protected against nails, screws and the like.             |
| <input checked="" type="checkbox"/>               | Presence of main protective bonding conductors   | <input type="checkbox"/>                                   | Additional protection by 30mA RCD for cables concealed in walls (where required, in premises not under the supervision of skilled or instructed persons) |
| <input type="checkbox"/>                          | Presence of earthing arrangements for combined protective and functional purposes                            | <input type="checkbox"/>                                   | Connection of conductors   |
| <input type="checkbox"/>                          | Presence of adequate arrangements for alternative source(s), where applicable                                | <input checked="" type="checkbox"/>                        | Presence of fire barriers, suitable seals and protection against thermal effects   |
| <input type="checkbox"/>                          | FELV   | <b>General</b>   |  |
| <input checked="" type="checkbox"/>               | Choice and setting of protective and monitoring devices (for fault protection and/or overcurrent protection) | <input checked="" type="checkbox"/>                        | Presence and correct location of appropriate devices for isolation and switching   |
| <b>Non-conducting location **</b>                 |  | <input checked="" type="checkbox"/>                        | Adequacy of access to switchgear and other equipment   |
| <input type="checkbox"/>                          | Absence of protective conductors   | <input checked="" type="checkbox"/>                        | Particular protective measures for special installations and locations   |
| <b>Earth-free equipotential bonding **</b>        |  | <input checked="" type="checkbox"/>                        | Connection of single-pole devices for protection or switching in line conductors only  |
| <input type="checkbox"/>                          | Presence of earth-free equipotential bonding   | <input checked="" type="checkbox"/>                        | Correct connection of accessories and equipment  |
| <b>Electrical separation</b>                      |  | <input type="checkbox"/>                                   | Presence of undervoltage protective devices  |
| <input type="checkbox"/>                          | For one item of current-using equipment  | <input checked="" type="checkbox"/>                        | Selection of equipment and protective measures appropriate to external influences  |
| <input checked="" type="checkbox"/>               | For more than one item of current-using equipment **   | <input checked="" type="checkbox"/>                        | Selection of appropriate functional switching devices  |
| <b>Additional protection</b>                      |  | <b>** For use in controlled supervised/conditions only</b> |  |
| <input checked="" type="checkbox"/>               | Presence of residual current device(s)   | <input type="checkbox"/>                                   | Basic protection by barrier or enclosure provided during erection  |
| <input checked="" type="checkbox"/>               | Presence of supplementary bonding conductors   | <input type="checkbox"/>                                   | Insulation of non-conducting floors or walls   |
| <b>SCHEDULE OF ITEMS TESTED</b>                   |  | † see note below   |  |
| <input checked="" type="checkbox"/>               | External earth fault loop impedance, $Z_e$   | <input type="checkbox"/>                                   | Polarity   |
| <input type="checkbox"/>                          | Installation earth electrode resistance, $R_A$   | <input checked="" type="checkbox"/>                        | Earth fault loop impedance, $Z_s$  |
| <input checked="" type="checkbox"/>               | Continuity of protective conductors  | <input checked="" type="checkbox"/>                        | Verification of phase sequence   |
| <input type="checkbox"/>                          | Continuity of ring final circuit conductors  | <input checked="" type="checkbox"/>                        | Operation of residual current devices  |
| <input checked="" type="checkbox"/>               | Insulation resistance between live conductors  | <input checked="" type="checkbox"/>                        | Functional testing of assemblies   |
| <input checked="" type="checkbox"/>               | Insulation resistance between live conductors and Earth  | <input checked="" type="checkbox"/>                        | Verification of voltage drop   |
| <input type="checkbox"/>                          | Protection by separation of circuits   |  |  |

† All boxes must be completed

✓ to indicate an inspection has been carried out and the result was satisfactory

\* to indicate an inspection has been carried out and the result is not satisfactory

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N/A to indicate the inspection is not applicable to a particular item  
LIM to indicate that exceptionally, a limitation agreed with the person ordering the work prevented the inspection being carried out

| BOARD DETAILS                  |                               | ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION |     |                 |                            |
|--------------------------------|-------------------------------|--|-----|-----------------|----------------------------|
| TO BE COMPLETED IN EVERY CASE  |                               |  |     |                 |                            |
| Location of distribution board | Main intake room ground floor | Supply to distribution board is from   | N/A |                 | Associated RCD (if any)    |
| Distribution board designation | DB 1 GL/1                     | No of phases   | N/A | Nominal Voltage | N/A V                      |
|                                |                               | Overcurrent protective device for the distribution circuit   |     |                 | RCD No of poles            |
|                                |                               | Type BS(EN)  | N/A | Rating          | N/A A                      |
|                                |                               |  |     |                 | RCD rating, $I_{\Delta n}$ |
|                                |                               |  |     |                 | N/A mA                     |

| Circuit number and phase | Circuit designation       | Type of wiring | Reference method | No of points served | Circuit conductors csa |                     | Max permitted disconnection time s | Overcurrent protective device |         |          |                           | RCD $I_{\Delta n}$ | Max permitted Zs $\Omega$ |                            |
|--------------------------|---------------------------|----------------|------------------|---------------------|------------------------|---------------------|------------------------------------|-------------------------------|---------|----------|---------------------------|--------------------|---------------------------|----------------------------|
|                          |                           |                |                  |                     | Live mm <sup>2</sup>   | cpc mm <sup>2</sup> |                                    | BS(EN)                        | Type No | Rating A | Short circuit capacity kA |                    |                           | Op. current $I_{\Delta n}$ |
|                          |                           |                |                  |                     |                        |                     |                                    |                               |         |          |                           |                    |                           |                            |
| 1/L1                     | 1st flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 1/L2                     | 2nd flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 1/L3                     | 3rd flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 2/L1                     | 4th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 2/L2                     | 5th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 2/L3                     | 6th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 3/L1                     | 7th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 3/L2                     | 8th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 3/L3                     | 9th flr lift lobby lights | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 4/L1                     | 10th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 4/L2                     | 11th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 4/L3                     | 12th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 5/L1                     | 13th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 5/L2                     | 14th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 5/L3                     | 15th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 6/L1                     | 16th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 6/L2                     | 17th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 6/L3                     | 18th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 7/L1                     | 19th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 7/L2                     | 20th flr lift lobby light | B              | B                | 7                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 7/L3                     | 1st-5th flr main stairs   | B              | B                | 10                  | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 8/L1                     | 6th-10th flr main stairs  | B              | B                | 10                  | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 8/L2                     | 11th-15th flr main stairs | B              | B                | 10                  | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |
| 8/L3                     | 16th-20th flr main stairs | B              | B                | 10                  | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                | 5.71                      |                            |

| WIRING CODE    |                                |                                    |                                 |                                     |                |                 |                          |       |
|----------------|--------------------------------|------------------------------------|---------------------------------|-------------------------------------|----------------|-----------------|--------------------------|-------|
| A              | B                              | C                                  | D                               | E                                   | F              | G               | H                        | O     |
| PVC/PVC cables | PVC cables in metallic conduit | PVC cables in non-metallic conduit | PVC cables in metallic trunking | PVC cables in non-metallic trunking | PVC/SWA cables | XLPE/SWA cables | Mineral insulated cables | Other |

| BOARD TESTS  |     |    |  |                                 |     | TEST INSTRUMENTS (SERIAL NUMBERS) USED |                       |          |          |     |
|--|-----|----|--|---------------------------------|-----|--|-----------------------|----------|----------|-----|
| ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION |     |    |  |                                 |     | Earth fault loop impedance             | 9571044.              | RCD      | 9571044. |     |
| Zs   | N/A | Ω  | Operating times of associated RCD (if any) | All $\Delta_n$                  | N/A | ms                                     | Insulation resistance | 9571044. | Other    | N/A |
| Ipf  | N/A | kA |  | $5I_{\Delta n}$ (if applicable) | N/A | ms                                     | Continuity            | 9571044. | Other    | N/A |
| Confirmation of Supply polarity  |     |    |  |                                 |     | N/A                                    |                       |          |          |     |

CIRCUIT TESTS

| Circuit number and phase | Circuit impedances                             |                 |             |  |       | Insulation resistance |              |            |               | Polarity | Maximum measured earth fault loop impedance | RCD operating times |                    |
|--------------------------|--|-----------------|-------------|--|-------|-----------------------|--------------|------------|---------------|----------|---|---------------------|--------------------|
|                          | Ring final circuits only (measured end to end) |                 |             | All circuits (At least one column to be completed) |       | Line/Line             | Line/Neutral | Line/Earth | Earth/Neutral |          |   | At $\Delta_n$       | At $5I_{\Delta n}$ |
|                          | $r_1$ (Line)                                   | $r_n$ (Neutral) | $r_2$ (cpc) | $R_1 + R_2$  | $R_2$ | MΩ                    | MΩ           | MΩ         | MΩ            |          |   | ms                  | ms                 |
| 1/L1                     | N/A  | N/A             | N/A         | 0.71   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.00  | N/A                 | N/A                |
| 1/L2                     | N/A  | N/A             | N/A         | 0.60   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.89  | N/A                 | N/A                |
| 1/L3                     | N/A  | N/A             | N/A         | 0.65   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.12  | N/A                 | N/A                |
| 2/L1                     | N/A  | N/A             | N/A         | 0.53   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.14  | N/A                 | N/A                |
| 2/L2                     | N/A  | N/A             | N/A         | 0.67   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.08  | N/A                 | N/A                |
| 2/L3                     | N/A  | N/A             | N/A         | 0.90   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.09  | N/A                 | N/A                |
| 3/L1                     | N/A  | N/A             | N/A         | 0.83   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.16  | N/A                 | N/A                |
| 3/L2                     | N/A  | N/A             | N/A         | 0.57   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.23  | N/A                 | N/A                |
| 3/L3                     | N/A  | N/A             | N/A         | 0.60   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.19  | N/A                 | N/A                |
| 4/L1                     | N/A  | N/A             | N/A         | 0.69   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.07  | N/A                 | N/A                |
| 4/L2                     | N/A  | N/A             | N/A         | 0.81   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.11  | N/A                 | N/A                |
| 4/L3                     | N/A  | N/A             | N/A         | 0.90   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.13  | N/A                 | N/A                |
| 5/L1                     | N/A  | N/A             | N/A         | 0.77   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.18  | N/A                 | N/A                |
| 5/L2                     | N/A  | N/A             | N/A         | 0.83   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.30  | N/A                 | N/A                |
| 5/L3                     | N/A  | N/A             | N/A         | 0.68   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.06  | N/A                 | N/A                |
| 6/L1                     | N/A  | N/A             | N/A         | 0.71   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.74  | N/A                 | N/A                |
| 6/L2                     | N/A  | N/A             | N/A         | 0.82   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.66  | N/A                 | N/A                |
| 6/L3                     | N/A  | N/A             | N/A         | 0.74   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.17  | N/A                 | N/A                |
| 7/L1                     | N/A  | N/A             | N/A         | 1.08   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 2.00  | N/A                 | N/A                |
| 7/L2                     | N/A  | N/A             | N/A         | 1.03   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.80  | N/A                 | N/A                |
| 7/L3                     | N/A  | N/A             | N/A         | 0.86   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.94  | N/A                 | N/A                |
| 8/L1                     | N/A  | N/A             | N/A         | 0.92   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 1.86  | N/A                 | N/A                |
| 8/L2                     | N/A  | N/A             | N/A         | 1.00   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 2.02  | N/A                 | N/A                |
| 8/L3                     | N/A  | N/A             | N/A         | 0.89   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 2.16  | N/A                 | N/A                |

|           |                   |                 |            |
|-----------|-------------------|-----------------|------------|
| Signature | <i>M Chessher</i> | Position        | ENGINEER   |
| Name      | M.Chessher        | Date of testing | 04/05/2010 |

| BOARD DETAILS                  |                               | ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION |            |
|--------------------------------|-------------------------------|--|------------|
| TO BE COMPLETED IN EVERY CASE  |                               |  |            |
| Location of distribution board | Main intake room ground floor | Supply to distribution board is from   | N/A        |
| Distribution board designation | DB 1 GL/1                     | No of phases   | N/A        |
|                                |                               | Nominal Voltage  | N/A V      |
|                                |                               | Overcurrent protective device for the distribution circuit   |            |
|                                |                               | Type BS(EN)  | N/A        |
|                                |                               | Rating   | N/A A      |
|                                |                               | Associated RCD (if any)  | BS(EN) N/A |
|                                |                               | RCD No of poles  | N/A        |
|                                |                               | RCD rating, I <sub>Δn</sub>  | N/A mA     |

| Circuit number and phase | Circuit designation       | Type of wiring | Reference method | No of points served | Circuit conductors csa |                     | Max permitted disconnection time s | Overcurrent protective device |         |          |                           | RCD Op. current I <sub>Δn</sub> | Max permitted Zs Ω |
|--------------------------|---------------------------|----------------|------------------|---------------------|------------------------|---------------------|------------------------------------|-------------------------------|---------|----------|---------------------------|---------------------------------|--------------------|
|                          |                           |                |                  |                     | Live mm <sup>2</sup>   | cpc mm <sup>2</sup> |                                    | BS(EN)                        | Type No | Rating A | Short circuit capacity kA |                                 |                    |
|                          |                           |                |                  |                     |                        |                     |                                    |                               |         |          |                           |                                 |                    |
| 9/L1                     | Lights in intake main     | B              | B                | 2                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 9/L2                     | Lift lobby sockets 1-4    | B              | B                | 4                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 9/L3                     | Lift lobby sockets 5-8    | B              | B                | 4                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 10/L1                    | Lift lobby sockets 9-12   | B              | B                | 4                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 10/L2                    | Lift lobby sockets 13-16  | B              | B                | 4                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 10/L3                    | Lift lobby sockets 17-20  | B              | B                | 4                   | 4                      | 2.5                 | 0.4                                | 3871 MCB                      | 2       | 32       | 10                        | 30                              | 1.07               |
| 11/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 11/L2                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 11/L3                    | Lights office staircase   | B              | B                | 6                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                             | 5.71               |
| 12/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 12/L2                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 12/L3                    | Socket intake main        | B              | B                | 1                   | 2.5                    | 1.5                 | 0.4                                | 3871 MCB                      | 2       | 20       | 10                        | N/A                             | 1.71               |
| 13/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 13/L2                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 13/L3                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 14/L1                    | BT socket riser deck leve | H              | C                | 1                   | 2.5                    | 1.5                 | 0.4                                | 60898 MCB                     | B       | 10       | 10                        | N/A                             | 4.60               |
| 14/L2                    | Air con unit 2            | F              | C                | 1                   | 4                      | 35                  | 0.4                                | 60898 MCB                     | B       | 20       | 10                        | N/A                             | 2.30               |
| 14/L3                    | Air con unit 1            | H              | C                | 1                   | 4                      | 35                  | 0.4                                | 60898 MCB                     | B       | 20       | 10                        | N/A                             | 2.30               |
| 15/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 15/L2                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 15/L3                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 16/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 16/L2                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |
| 16/L3                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                               | -                  |

| WIRING CODE    |                                |                                    |                                 |                                     |                |                 |                          |       |
|----------------|--------------------------------|------------------------------------|---------------------------------|-------------------------------------|----------------|-----------------|--------------------------|-------|
| A              | B                              | C                                  | D                               | E                                   | F              | G               | H                        | O     |
| PVC/PVC cables | PVC cables in metallic conduit | PVC cables in non-metallic conduit | PVC cables in metallic trunking | PVC cables in non-metallic trunking | PVC/SWA cables | XLPE/SWA cables | Mineral insulated cables | Other |

BOARD TESTS

|  |     |    |  |               |     |  |                            |          |       |          |
|--|-----|----|--|---------------|-----|--|----------------------------|----------|-------|----------|
| ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION |     |    |  |               |     | TEST INSTRUMENTS (SERIAL NUMBERS) USED |                            |          |       |          |
| Zs   | N/A | Ω  | Operating times of associated RCD (if any) | At $\Delta n$ | N/A | ms                                     | Earth fault loop impedance | 9571044. | RCD   | 9571044. |
| Ipf  | N/A | kA |  | Sl $\Delta n$ | N/A | ms                                     | Insulation resistance      | 9571044. | Other | N/A      |
| Confirmation of Supply polarity  |     |    |  |               |     | N/A                                    | Continuity                 | 9571044. | Other | N/A      |

CIRCUIT TESTS

| Circuit number and phase | Circuit impedances                             |                    |                |  |       | Insulation resistance |              |            |               | Polarity | Maximum measured earth fault loop impedance | RCD operating times |               |
|--------------------------|--|--------------------|----------------|--|-------|-----------------------|--------------|------------|---------------|----------|---|---------------------|---------------|
|                          | Ring final circuits only (measured end to end) |                    |                | All circuits (At least one column to be completed) |       | Line/Line             | Line/Neutral | Line/Earth | Earth/Neutral |          |   | At $\Delta n$       | Sl $\Delta n$ |
|                          | $r_1$<br>(Line)                                | $r_n$<br>(Neutral) | $r_2$<br>(cpc) | $R_1 + R_2$  | $R_2$ | MΩ                    | MΩ           | MΩ         | MΩ            |          |   | ms                  | ms            |
| 9/L1                     | N/A  | N/A                | N/A            | 0.42   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.60  | N/A                 | N/A           |
| 9/L2                     | N/A  | N/A                | N/A            | 0.39   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.48  | 18.0                | 17.3          |
| 9/L3                     | N/A  | N/A                | N/A            | 0.43   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.51  | 17.0                | 16.6          |
| 10/L1                    | N/A  | N/A                | N/A            | 0.46   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.52  | 19.1                | 17.6          |
| 10/L2                    | N/A  | N/A                | N/A            | 0.48   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.52  | 18.9                | 17.4          |
| 10/L3                    | N/A  | N/A                | N/A            | 0.44   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.64  | 17.8                | 16.0          |
| 11/L1                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 11/L2                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 11/L3                    | N/A  | N/A                | N/A            | 0.46   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.53  | N/A                 | N/A           |
| 12/L1                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 12/L2                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 12/L3                    | N/A  | N/A                | N/A            | 0.24   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.31  | N/A                 | N/A           |
| 13/L1                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 13/L2                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 13/L3                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 14/L1                    | N/A  | N/A                | N/A            | 0.39   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.48  | N/A                 | N/A           |
| 14/L2                    | N/A  | N/A                | N/A            | 0.42   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.56  | N/A                 | N/A           |
| 14/L3                    | N/A  | N/A                | N/A            | 0.47   | N/A   | N/A                   | 200>         | 200>       | 200>          | ✓        | 0.60  | N/A                 | N/A           |
| 15/L1                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 15/L2                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 15/L3                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 16/L1                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 16/L2                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |
| 16/L3                    | -  | -                  | -              | -  | -     | -                     | -            | -          | -             | •        | -   | -                   | -             |

TESTED BY

|           |                    |                 |            |
|-----------|--------------------|-----------------|------------|
| Signature | <i>M. Chessher</i> | Position        | ENGINEER   |
| Name      | M. Chessher        | Date of testing | 04/05/2010 |





| TO BE COMPLETED IN EVERY CASE  |                           | ONLY TO BE COMPLETED IF THE DISTRIBUTION BOARD IS NOT CONNECTED DIRECTLY TO THE ORIGIN OF THE INSTALLATION |     |                 |                            |
|--------------------------------|---------------------------|--|-----|-----------------|----------------------------|
| Location of distribution board | 14st floor riser cupboard | Supply to distribution board is from   | N/A |                 | Associated RCD (if any)    |
| Distribution board designation | DB LL1                    | No of phases   | N/A | Nominal Voltage | N/A V                      |
|                                |                           | Overcurrent protective device for the distribution circuit   |     |                 | RCD No of poles            |
|                                |                           | Type BS(EN)  | N/A | Rating          | N/A A                      |
|                                |                           |  |     |                 | RCD rating, $I_{\Delta n}$ |
|                                |                           |  |     |                 | N/A mA                     |

| Circuit number and phase | Circuit designation       | Type of wiring | Reference method | No of points served | Circuit conductors csa |                     | Max permitted disconnection time s | Overcurrent protective device |         |          |                           | RCD Op-current $I_{\Delta n}$ | Max permitted Zs $\Omega$ |
|--------------------------|---------------------------|----------------|------------------|---------------------|------------------------|---------------------|------------------------------------|-------------------------------|---------|----------|---------------------------|-------------------------------|---------------------------|
|                          |                           |                |                  |                     | Live mm <sup>2</sup>   | cpc mm <sup>2</sup> |                                    | BS(EN)                        | Type No | Rating A | Short circuit capacity kA |                               |                           |
|                          |                           |                |                  |                     |                        |                     |                                    |                               |         |          |                           |                               |                           |
| 1/L1                     | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 2/L1                     | Lights to staff room      | B              | B                | 6                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 6                         | N/A                           | 5.71                      |
| 3/L1                     | Lights floods adj staffro | B              | B                | 3                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 6                         | N/A                           | 5.71                      |
| 4/L1                     | Lights w/way deck level   | B              | B                | 5                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 6                         | N/A                           | 5.71                      |
| 5/L1                     | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 6/L1                     | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 7/L1                     | Lights deck level         | B              | B                | 5                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                           | 5.71                      |
| 8/L1                     | Lights bottom of stairs   | B              | B                | 3                   | 1.5                    | 1.0                 | 0.4                                | 3871 MCB                      | 2       | 6        | 10                        | N/A                           | 5.71                      |
| 9/L1                     | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 10/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 11/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |
| 12/L1                    | SPARE                     | -              | -                | -                   | -                      | -                   | -                                  | -                             | -       | -        | -                         | -                             | -                         |

| WIRING CODE    |                                |                                    |                                 |                                     |                |                 |                          |       |
|----------------|--------------------------------|------------------------------------|---------------------------------|-------------------------------------|----------------|-----------------|--------------------------|-------|
| A              | B                              | C                                  | D                               | E                                   | F              | G               | H                        | O     |
| PVC/PVC cables | PVC cables in metallic conduit | PVC cables in non-metallic conduit | PVC cables in metallic trunking | PVC cables in non-metallic trunking | PVC/SWA cables | XLPE/SWA cables | Mineral insulated cables | Other |





