



LEGEND

- EARTH ELECTRODE ROD
AIR ROD
EARTH BOND

NOTES

- AS THE PORTAL STEEL FRAME/METALLIC STRUCTURE IS TO BE UTILISED AS THE MAIN PART OF THE LIGHTNING CONDUCTOR SYSTEM, THE INSTALLATION WILL BE CARRIED OUT OVER THE FOLLOWING VISITS/THE FOLLOWING WORKS WILL BE CARRIED OUT DURING EACH VISIT TO SITE:-
- INSTALLATION THE LOW LEVEL BONDS TO THE PORTAL STEEL FRAME OF THE BUILDING. THESE BONDS WILL COMPRISE OF 25x3mm GUNMETAL 'B' BONDS, DRILLED AND TAPPED TO THE BASE OF THE COLUMNS VIA M10 BOLTS.
- A 25x3mm PVC SHEATHED COPPER TAIL WILL THEN BE LEFT COILED TO ENABLE FUTURE CONNECTION TO THE EARTH ELECTRODES.
- ONCE ALL HANDRAILS AND METALLIC ITEMS AT ROOF LEVEL HAVE BEEN INSTALLED, WE WILL CARRY OUT CONTINUITY TESTS BETWEEN THE PORTAL STEEL FRAME AND METALLIC HANDRAILS /ITEMS. THE READINGS OBTAINED WILL BE RECORDED AND A TEST CERTIFICATE WILL BE ISSUED TO CONFIRM THAT THE READINGS ARE IN LINE WITH BSEN 62305:2011.
- SHOULD THE CONTINUITY TESTS FAIL, CROSS BONDS WILL BE MADE BETWEEN THE METALLIC HANDRAILS/ITEMS AND PORTAL STEEL FRAME OF THE BUILDING AND A COST WILL BE ISSUED FOR THESE WORKS.
- ONCE THE FINAL GROUND SCRAPE HAS BEEN CARRIED OUT BUT BEFORE FLAGGING COMMENCES, THE EARTH ELECTRODES WILL BE INSTALLED IN POSITIONS AGREED ON SITE WITH THE MAIN CONTRACTOR TO AVOID ANY UNDERGROUND SERVICES/FOOTINGS.
- THE EARTH ELECTRODES WILL COMPRISE OF 2400x16mm COPPERBOND EARTH ELECTRODES, HOUSED WITHIN GRP LOCKABLE INSPECTION PITS (FITTED BY THE MAIN CONTRACTOR).
- THE COPPER TAILS PREVIOUSLY INSTALLED TO THE STEEL COLUMNS WILL THEN BE CONNECTED TO THE EARTH ELECTRODES USING GUNMETAL 'A' CLAMPS.
- THE RESISTANCE READING OF EACH EARTH ELECTRODE WILL THEN BE TAKEN USING A NULL BALANCED MEGGER. THE READINGS OBTAINED WILL BE RECORDED AND A FINAL LOG BOOK AND TEST CERTIFICATE WILL BE ISSUED.

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Rev	Date	Description	Drawn By

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Project
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MULTI-STOREY CAR PARK
WARRINGTON

Drawing Title
ROOF LEVEL
LIGHTNING PROTECTION

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