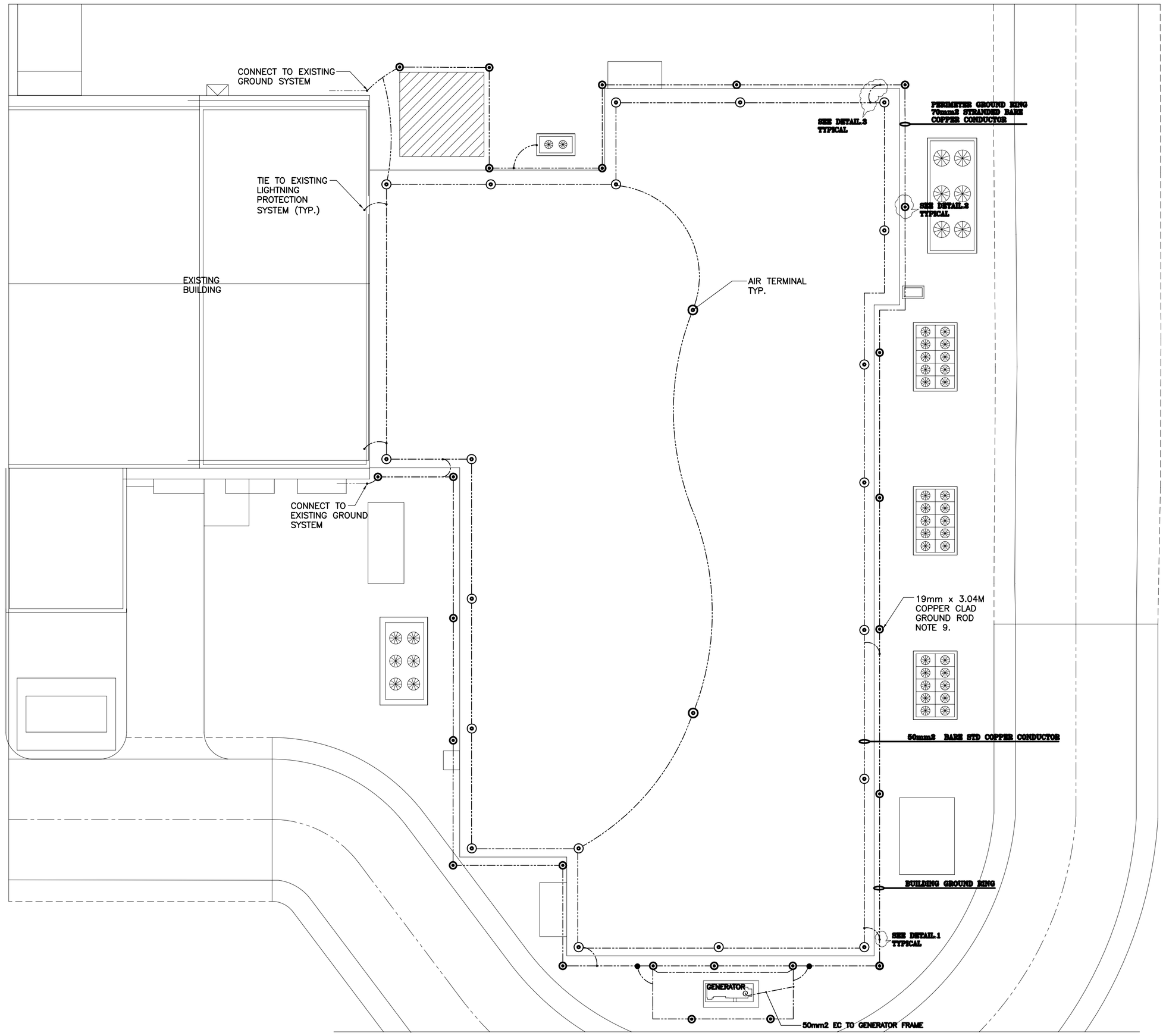
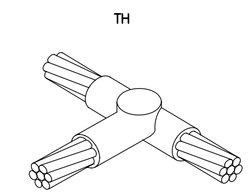
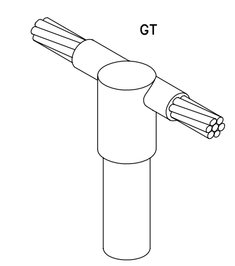
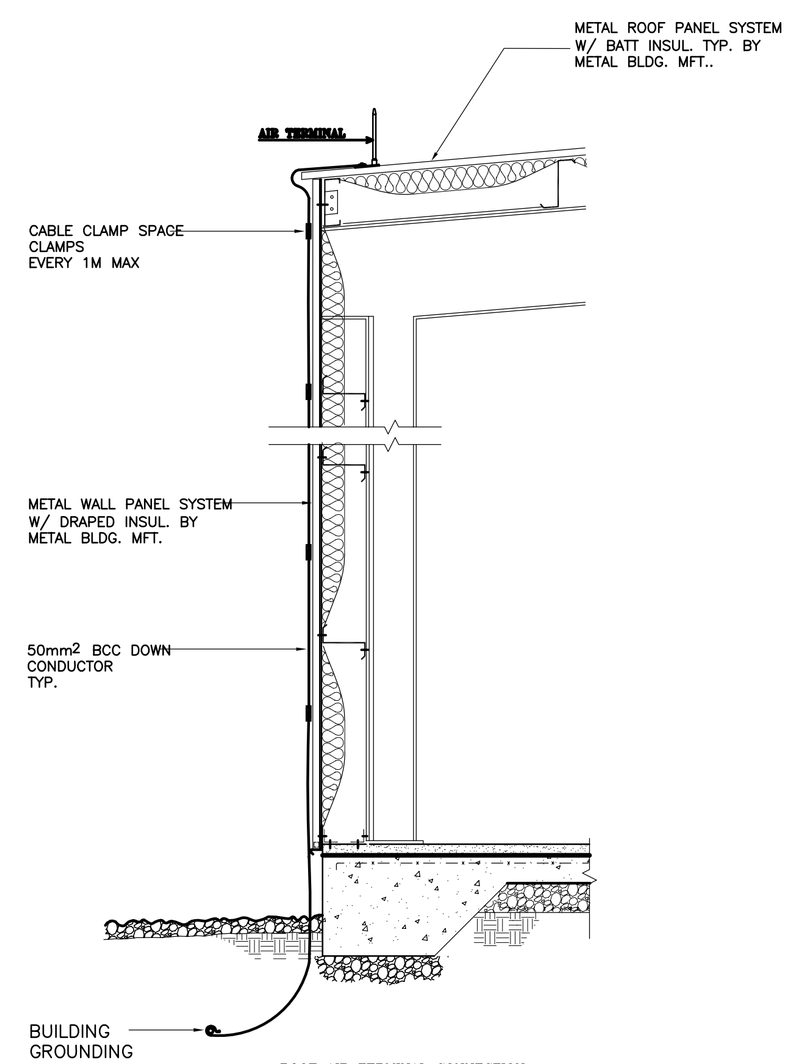




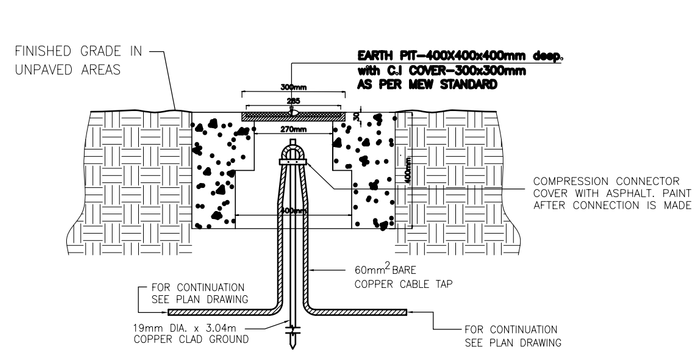
HORIZONTAL TEE CONNECTION
TYPICAL DETAIL.1
SCALE : NTS



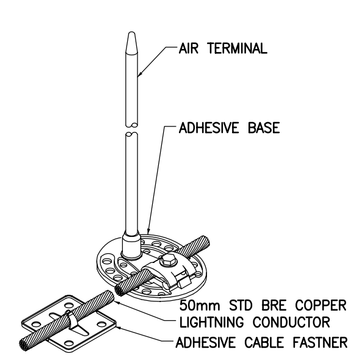
CABLE TO GROUND ROD CONNECTION
TYPICAL DETAIL.2
SCALE : NTS



ROOF AIR TERMINAL CONNECTION
TYPICAL DETAIL.3
SCALE : NTS



EARTH PIT DETAIL
SCALE: N.T.S.



ADHESIVE AIR TERMINAL BASE
SCALE: N.T.S.

NOTES:—

1. FOR SYMBOLS AND ABBREVATIONS, SEE DWG E01.
2. FOR TRANSMITTER BUILDING GROUNDING, SEE DWG.BMB-EG-01
3. SPACING GROUND RODS AS SHOWN ON DWGS.
4. PERIMETER AIR TERMINALS ARE PLACED AT 7.60M MAXIMUM SPACING WITHIN 0.61M OF OUTSIDE OF EDGE.
5. MIDROOF AIR TERMINALS ARE PLACED AT 15.2M MAXIMUM SPACING.
6. ALL LIGHTNING PROTECTION CONDUCTORS ARE FASTENED HORIZONTALLY AND VERTICALLY NOT MORE THAN 1.0M MAXIMUM SPACING.
7. BOND TO ALL METAL BODIES OF CONDUCTANCE WITHIN 1.83M OF THE MAIN LIGHTNING CONDUCTOR SUCH AS EXHAUST FANS, ROOF VENTS, DUCTS, METAL COOLING TOWERS, HVAC UNITS, LADDERS, RAILINGS, SKYLIGHT FRAMES, METAL STACKS AND ANY LARGE METAL BODY WHOSE HEIGHTS EXCEEDS THAT OF THE AIR TERMINALS IN USE. UNLESS PROTECTED BY A HIGHER ROOF ELEVATION PER UL96A STANDARD REQUIREMENTS.
8. ALL BONDING JUMPERS TO LIGHTNING PROTECTION SYSTEM ARE 50mm STRANDED COPPER CONDUCTOR UNLESS OTHERWISE NOTED.
9. ALL GROUND RODS ARE AT LEAST SIZE (19mm X 3.04M) IN 3.04M COPPER CLAD STEEL SECTIONS W/COUPLINGS THREADED AND INSTALLED AS INDICATED ON THE DRAWING. THE GROUND RODS ARE VERTICALLY INTO THE GROUND UNTIL THE TOP OF THE ROD IS 63mm BELOW GRADE MINIMUM. THE DISTANCE BETWEEN RODS IS NOT GREATER THAN 30M.
10. ALL GROUND WIRE AND CABLE ARE BARE STRANDED COPPER.
11. GROUND RING CONDUCTORS ARE LAID AT MINIMUM 610mm FROM CONCRETE FOUNDATIONS AND ARE AT A MINIMUM DEPTH OF 762mm. ALL GROUND CABLES BENEATH POURED CONCRETE ARE PLACED ON THE BOTTOM OF THE EXCAVATION.
12. ALL BURIED GROUND CONDUCTORS, INCLUDING RADIAL CONNECTIONS TO GROUND RING, ARE MADE BY EXOTHERMIC WELD. EXPOSED CONNECTIONS ARE MADE UTILIZING U.L. LISTED, SOLID BRASS GROUND LUGS/CLAMPS WITH NON-RUSTING, NON-CORROSIVE PRESSURE BOLTS OR SCREWS. ALL LUGS TO BE 2-HOLE, LONG BARREL TYPE.
13. ALL METALLIC CONDUIT, WATER PIPES AND/OR FUEL LINES WHICH CROSS OR PASS WITHIN 1.82M OF BURIED GROUND RING SYSTEM ARE BONDED WITH 50mm2 TO EXTERNAL GROUND RING BY EXOTHERMIC WELD OR U.L. APPROVED GROUNDING CLAMP. CONNECTIONS ARE COATED WITH CONDUCTIVE MOISTURE SEALANT SUCH AS, KOPR-SHIELD AND ARE COVERED WITH BURIED SPLICE TAPE.
14. ALL METAL STRUCTURAL STEEL COLUMNS, UNDERGROUND TANKS, EQUIPMENT ON CONCRETE SLABS OR METALLIC BASE ARE CONNECTED TO THE BLDG. GROUND LOOP SYSTEM.

AS BUILT

GRAPHIC SCALE:
0 1m 2m 5m
SCALE: 1:100 (METRIC)

SEAL:

REV	DESCRIPTIONS	DATE	APPR

REVISIONS

CHECKED BY: B.S.M
APPROVED BY: B.S.M

SUB.CONT: Bader Alfulaj & Brothers Co.W.L.L (Engineering Group)
P.O. Box No.177, SAFAT KUWAIT
Tel. 4815077; FAX; 4839725

		DATE
DRAWN	J.A.K	30/9/03
CHK. BY.	B.S.M	
ENGR.	B.S.M	

INTERNATIONAL BROADCASTING BUREAU
INTERNATIONAL BROADCASTING BUREAU
ENGINEERING & TECHNICAL OPERATIONS
WOODBRIDGE, U.K. IP12 4JF

PROJECT: SHORTWAVE EXPANSION PROJECT KUWAIT

APPROVALS
PROJ. MANAGER

TITLE: OPERATIONS AREA GROUNDING AND LIGHTNING PROTECTION PLAN

IQC No.
TASK No.
PROJ. No.
CAD DESIGN FILE NAME:

DWG. No. BMB-EP-08 | REV. 0 | DWG.REF. E05

SCALE: 1 : 100 | SHEET | OF

CAD FILE : C:\VOA\SHOP DRG-BMB-E-P-08