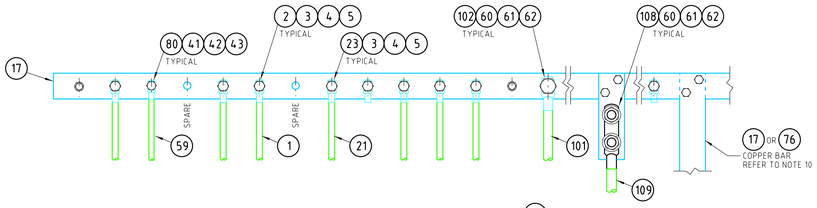
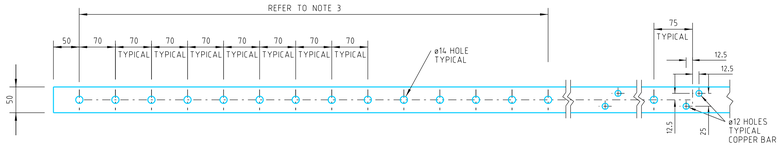
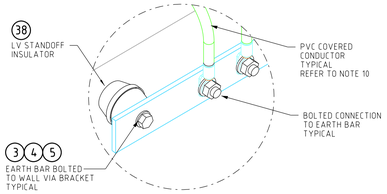


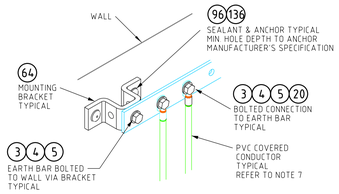
TYPICAL EARTH BAR - CONNECTION DETAILS DETAIL A



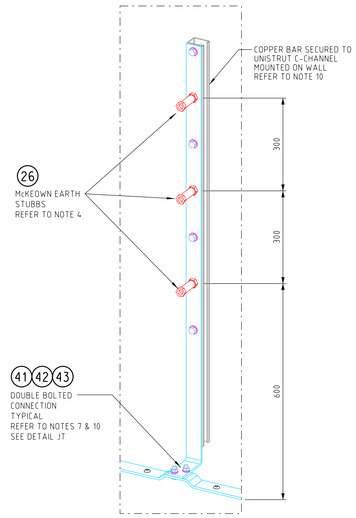
TYPICAL EARTH BAR - DRILLING DETAILS DETAIL B



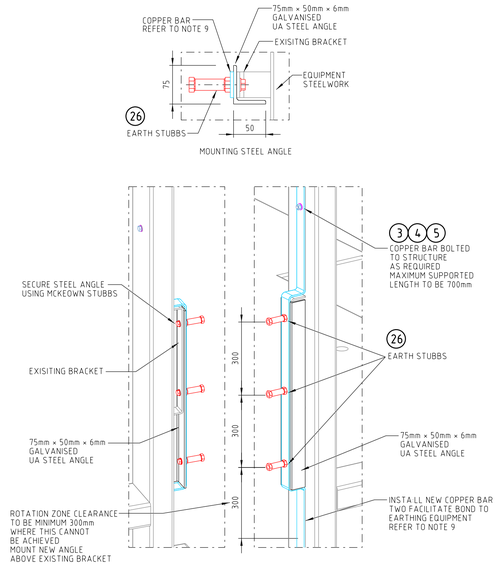
TYPICAL INDOOR MOUNTED
EARTH BAR SUPPORT DETAILS DETAIL C



TYPICAL WALL MOUNTED
EARTH BAR SUPPORT DETAILS DETAIL D
SCALE NTS

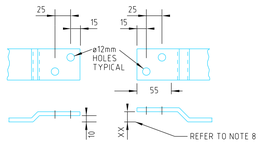


MCKEOWN EARTH STUBBS
MOUNTED ON WALL SUPPORT DETAIL MS1

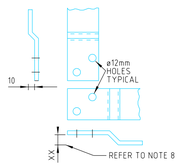


MCKEOWN STUBB
ADAPTED BRACKET DETAIL MS2

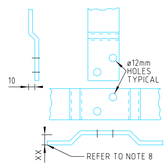
NOTE: SAME ON DIAGONALLY OPPOSITE LEG



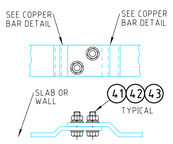
COPPER BAR DETAIL



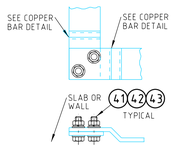
COPPER BAR DETAIL



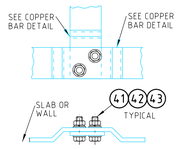
COPPER BAR DETAIL



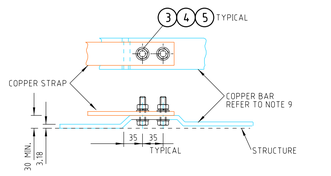
COPPER BAR - INLINE JOINT DETAIL JI



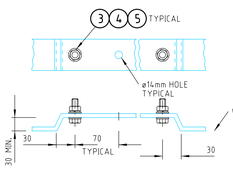
COPPER BAR - ANGLE JOINT DETAIL JA



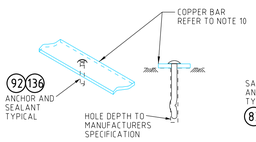
COPPER BAR - T- JOINT DETAIL JT



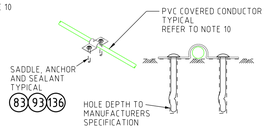
COPPER STRAP TO COPPER BAR INLINE JOINT DETAIL BJS



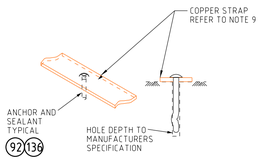
COPPER BAR - EARTH BAR FACILITY DETAIL EB



COPPER BAR
FIXING TO CONCRETE SLAB DETAIL FB



PVC COVERED CABLE
FIXING TO CONCRETE SLAB DETAIL FC



COPPER STRAP
FIXING TO CONCRETE SLAB DETAIL FS
SCALE NTS

NOTES:

1. FOR EARTH BARS SUPPLIED WITH EQUIPMENT - DRILL EXISTING EARTH BAR TO SUIT EARTH BOND CONNECTIONS.
2. FOR AUSGRID SUPPLIED EARTH BARS - ALLOWANCE FOR A MINIMUM OF 2 SPARE CONNECTIONS IS REQUIRED.
3. A MAXIMUM OF 910mm (12 CONNECTIONS) IS ALLOWED BETWEEN SUPPORT BRACKETS TO ITEM NO. 17.
4. THE DESTINATION OF ALL EARTH BONDS ARE TO BE CLEARLY MARKED AS PER EARTH BAR DETAILS TABLE ON PERMANENT LABELS AT BOTH ENDS OF THE BOND. REFER TO DETAIL LC.
5. ALL EARTH BARS TO BE CLEARLY & PERMANENTLY LABELLED AS PER EARTH BAR DETAILS TABLE. SEE DETAIL NP.
6. CABLES ARE REQUIRED TO BE SECURED TO CONCRETE USING STAINLESS STEEL SADDLES, ANCHOR AND SEALANT. SEE DETAIL FC.
7. COPPER BAR AND COPPER STRAP TO BE SECURED TO CONCRETE WITH ANCHOR AND SEALANT. SEE DETAIL FB.
8. WHERE DIMENSION IS LABELLED xx. THE DIMENSION IS THE THICKNESS OF THE SELECTED COPPER BAR PLUS 10mm.
9. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 236806 SHEET 2.
10. FOR CONDUCTOR, CRIMP & LUG SIZES REFER TO SITE SPECIFIC EARTHING DESIGN DOCUMENT.
11. PRIOR TO MAKING CONNECTIONS CLEAN SURFACES AND APPLY CONDUCTIVE GREASE. BOLT ALL CONNECTIONS AND JOINTS WITH STAINLESS STEEL NUTS, BOLTS, FLAT WASHERS AND BELLEVILLE WASHERS. TEST TO CONFIRM CONTINUITY.

NETWORK STANDARD

ITEM NO.	ITEM	DESCRIPTION	SAP CODE	MANUFACTURER	STD ORDER QTY.
136	JOINT SEALANT	SIKA FLEX PRO - CONCRETE GREY			
109	CONDUCTOR	CONDUCTOR - 300mm² STRANDED COPPER - BLACK PVC COVERED			
108	LUG COMPRESSION	DUAL HOLE / DOUBLE CRIMP LUG 300mm² M16 TINNED COPPER HEX COMPRESSION			
102	LUG COMPRESSION	LUG - 185mm² M16 TINNED COPPER HEX COMPRESSION	73312	UTILUX H1387/20	20 Pk.
101	CONDUCTOR	CONDUCTOR - 185mm² STRANDED COPPER - BLACK PVC COVERED			
96	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 3/8" x 3" STAINLESS STEEL GRADE 316 FOR FIXING UP TO 32mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180044	POWERS MH383SS	100 Pk.
93	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 5mm * 38mm STAINLESS STEEL GRADE 316 FOR FIXING UP TO 6mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180045	POWERS MH56MMSS	100 Pk.
92	ANCHOR	MUSHROOM HEAD SPIKE - POWERS 6.5mm * 50mm STAINLESS STEEL GRADE 316 FOR FIXING UP TO 19mm MATERIALS TO CONCRETE OR BRICK. PACK OF 100	180043	POWERS MH6519MMSS	100 Pk.
83	ANCHOR FULL SADDLE	ANCHOR SADDLE - FULL SADDLE STAINLESS STEEL GRADE 316 (70mm2 CABLE)		SPECIALISED WHOLESALE CCLM10-316DS	
80	LUG COMPRESSION	LUG - 035mm² M10 TINNED COPPER HEX COMPRESSION	73155	UTILUX H1368	50 Pk.
76	COPPER BAR	TINNED HD COPPER - 50.8 x 3.18mm	179661	PRIMARY METALS & ALLOYS	4 Metres
64	UNISTRUT BRACKET	UNISTRUT - BRACKET - HOT DIPPED GALV "U" SHAPE		P1047	
62	FASTENERS WASHER	FASTENERS - WASHER - M16 BELLEVILLE STAINLESS STEEL GRADE 304	NOT AVAILABLE THROUGH SAP	JAMES GLEN 3544	100 Pk.
61	FASTENERS WASHER	FASTENERS - WASHER - M16 FLAT STAINLESS STEEL GRADE 316	175624	JAMES GLEN 03756306	100 Pk.
60	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M16 HEX STAINLESS STEEL GRADE 316 - LENGTH TO SUIT	VARIOUS	VARIOUS	N/A
59	CONDUCTOR	CONDUCTOR - 035mm² STRANDED HD COPPER BLACK PVC COVERED	H13629	OLEX BAAT18SC001AABK	500m ROLL
43	FASTENERS WASHER	FASTENERS - WASHER - M10 BELLEVILLE STAINLESS STEEL GRADE 304	177296	JAMES GLEN 02756158	100 Pk.
42	FASTENERS WASHER	FASTENERS - WASHER - M10 FLAT STAINLESS STEEL GRADE 316	49411	JAMES GLEN 03756102	100 Pk.
41	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M10 HEX STAINLESS STEEL GRADE 316 - LENGTH TO SUIT	VARIOUS	VARIOUS	N/A
38	STANDOFF INSULATOR	LOW VOLTAGE INSULATOR H50 x Ø50mm M12 INTERNAL THREAD		NIM 50-12	
26	EARTH STUBB	EARTH STUBB - MC KEOWN REF DRAWING A3-520088	H108415	TAPPAT ENGINEERING	Each
23	LUG COMPRESSION	LUG - 120mm² M12 TINNED COPPER HEX COMPRESSION	57836	UTILUX H1382/25	25 Pk.
21	CONDUCTOR	CONDUCTOR - 120mm² STRANDED COPPER - BLACK PVC COVERED	175281	OLEX - BDBP 23AA001CXNA	100m ROLL
20	LUG COMPRESSION	LUG - 095mm² M12 TINNED COPPER HEX COMPRESSION	73304	UTILUX H1425/25	Each
17	COPPER BAR	FLAT BAR - 50 x 6.3mm - TINNED HD COPPER	41087	PRIMARY METALS & ALLOYS	4.0m
5	FASTENERS WASHER	FASTENERS - WASHER - M12 BELLEVILLE STAINLESS STEEL GRADE 304	175903	JAMES GLEN 3543	100 Pk.
4	FASTENERS WASHER	FASTENERS - WASHER - M12 FLAT STAINLESS STEEL GRADE 316	49429	JAMES GLEN 4620	100 Pk.
3	FASTENERS BOLT & NUT	FASTENERS - BOLT & NUT - M12 HEX STAINLESS STEEL GRADE 316 LENGTH TO SUIT	VARIOUS	VARIOUS	N/A
2	LUG COMPRESSION	LUG - 070mm² M12 TINNED COPPER HEX COMPRESSION	74831	UTILUX H1423/25	25 Pk.
1	CONDUCTOR	CONDUCTOR - 070mm² STRANDED COPPER - BLACK PVC COVERED	60111	PRYSMIAN 5014730	100m ROLL

MATERIALS LIST

ASSOCIATED DRAWINGS

Ausgrid
DESIGN & ENGINEERING BRANCH
145 NEWCASTLE RD WALLSEND, NSW 2287
Ph 02 4951 9388
Fax 02 4951 9389

SCALE	NTS
DESIGNED	AARON BULBERT
DRAWN	AARON BULBERT
CHECKED	WIM GERRITSEN
APPROVED	MICHAEL GRIFFITHS
DATE	26/11/14
PROJECT NUMBER	E&IC NS
PROJTRAK NUMBER	

EARTHING & INSULATION COORDINATION
STANDARD CONSTRUCTION
ELECTRICAL EARTHING
EARTH BAR MOUNTING & CONNECTION DETAILS

SIZE	DRAWING No	SHEET	AMD
B1	236806	01	0

CAD DRAWING
DO NOT MANUALLY AMEND
AMENDMENTS

20110923

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