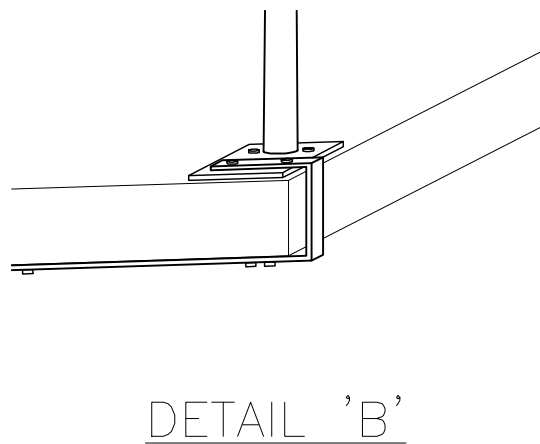
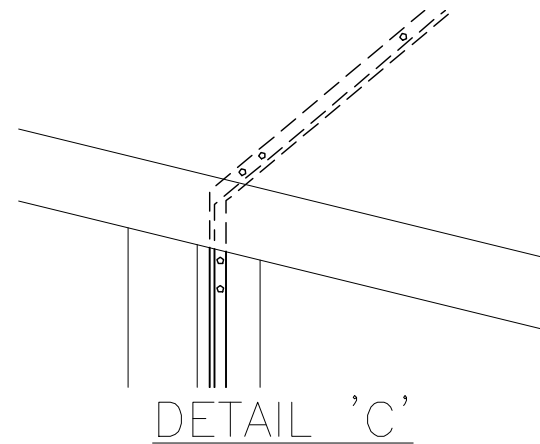


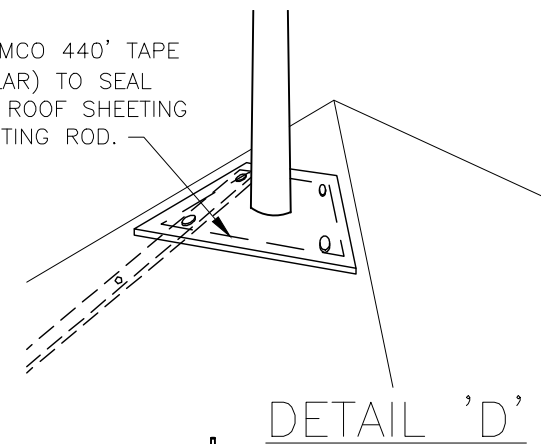
DETAIL 'A'



DETAIL 'B'

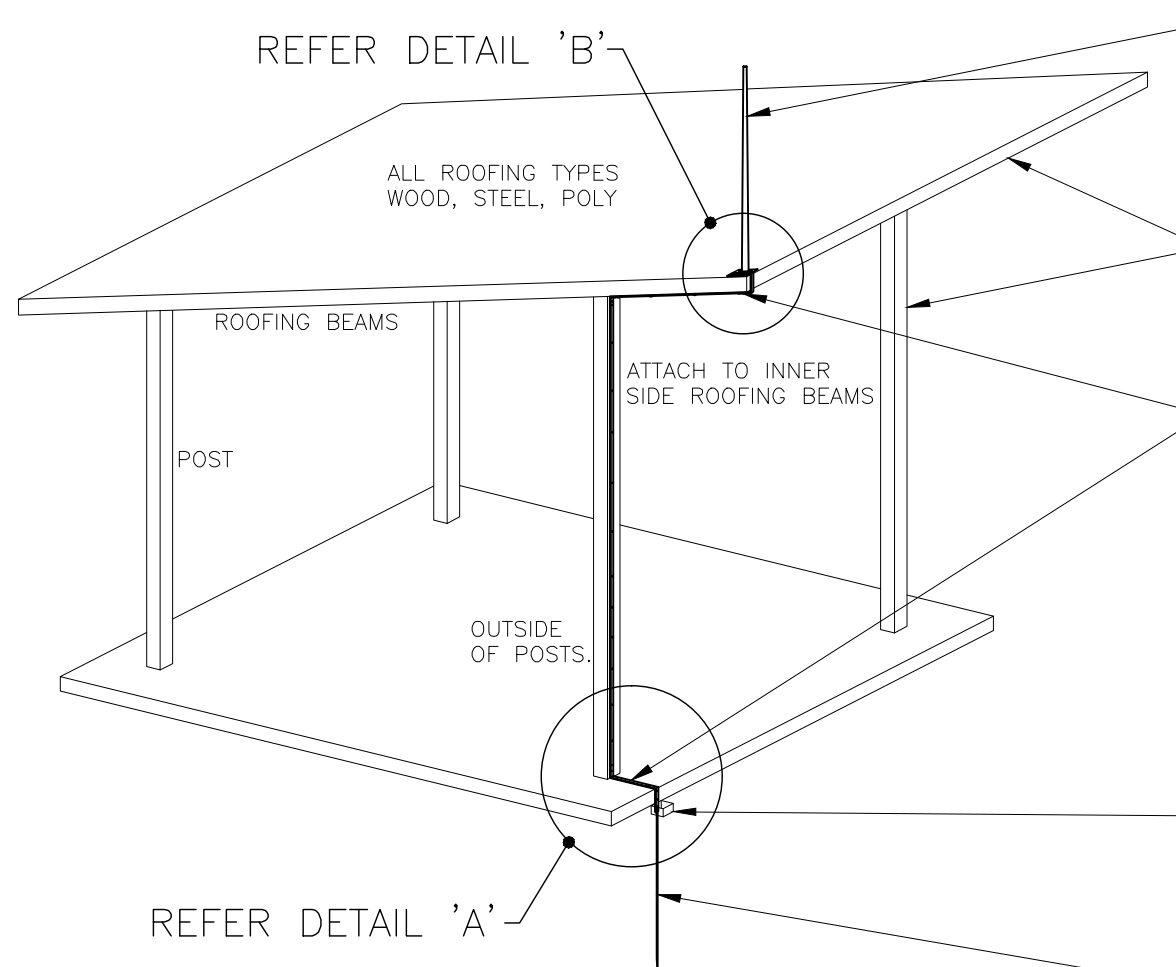


DETAIL 'C'



DETAIL 'D'

USE 'TREMCO 440' TAPE (OR SIMILAR) TO SEAL BETWEEN ROOF SHEETING AND LIGHTNING ROD.



TYPICAL SMALL STRUCTURE SLOPING FLAT OR CURVED ROOF

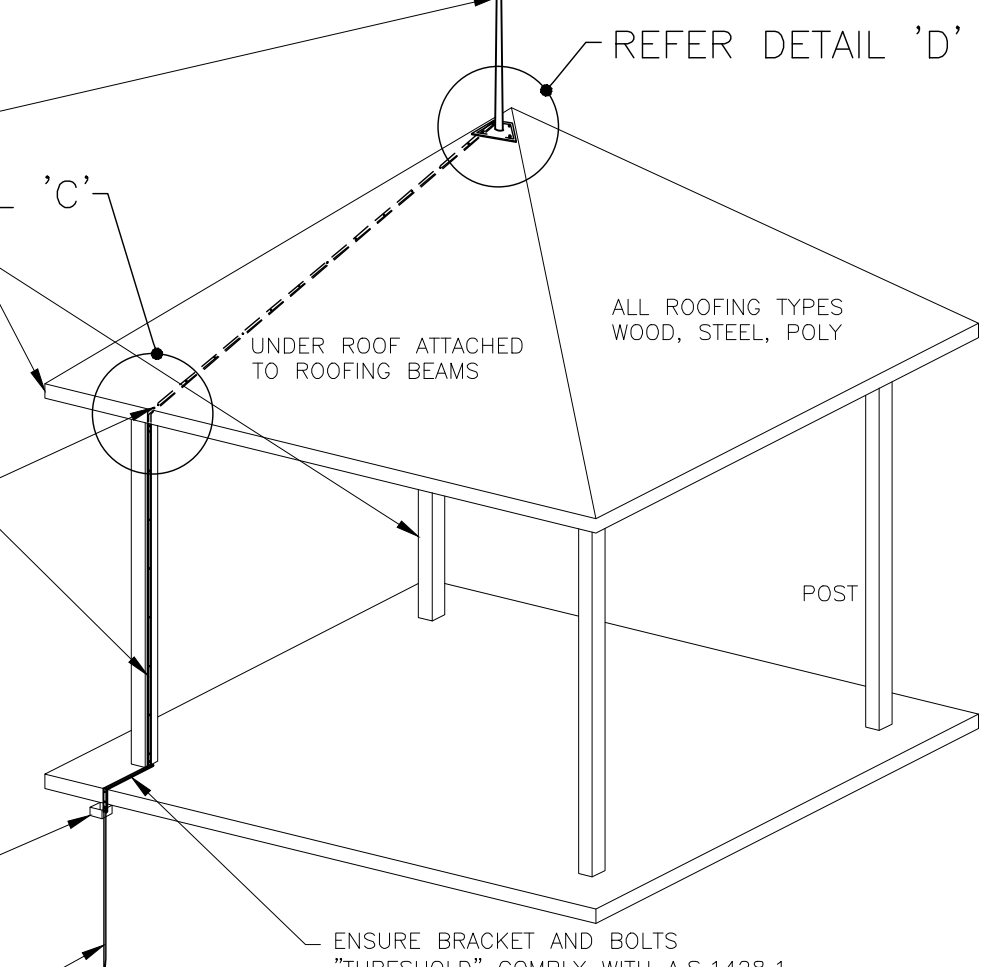
EARTH AIR ROD. LOCATE NEAR HIGHEST POINT OF STRUCTURE. APPROX. 1.0m LONG ϕ 15mm ALUMINIUM/STAINLESS STEEL ROD WITH ROOF MOUNTING PLATE. SECURELY MOUNT TO STRUCTURAL BEAM. WEATHER SEAL ALL ROOF PENETRATIONS WITH 25 YEAR GUARANTEE SILASTIC TYPE MATERIAL.

STRUCTURES WITH STEEL FRAMES/POSTS TO INCLUDE USE OF PENETRATING LOCKING WASHERS TO BRIDGE ANY NON CONDUCTIVE COVERING/PAINT MATERIALS AND PROVIDE ELECTRICAL CONTINUITY.

EARTH DOWN CONDUCTOR - ALUMINIUM/STAINLESS STEEL 10mm WIDE x 5mm THICK BAR (PREFERRED AS REDUCED TRIP ISSUES AT SLAB LEVEL) OR 12mm CABLE. SECURELY ATTACHED TO SIDE OF RAFTERS AND POST, AT APPROX. 300mm INTERVALS. USE SELF TAPING/SCREWING SCREWS (CABLE SADDLES) INTO BEAMS AND POSTS OF SUITABLE LENGTH TO PROVIDE ROBUST CONNECTION (PENETRATION INTO STRUCTURAL ELEMENTS - 10mm STEEL, 20mm WOOD). DOUBLY SECURE AT CORNERS AND BENDS.

SMALL EARTH PIT - POLY/PVC (INSPECTION TEST POINT) 200mm x 200mm x 200mm DEEP. MECHANICALLY SECURED LID (MIN. 2 CORNERS) WITH S/S CORNER LOCKING SCREWS.

DRIVEN EARTH STAKE. STAINLESS STEEL ϕ 15mm BAR x 3.0m LONG TO PROVIDED REQUIRED MIN 10 OHM EARTH CONDUCTIVITY.



TYPICAL SMALL STRUCTURE PEAKED ROOF

NOTE:

HYBRID SYSTEM ONLY AS1768-2007 LIGHTNING PROTECTION STANDARDS DO NOT REQUIRE PROTECTION TO SMALL STRUCTURES. ALL COMPONENTS TO BE COMPLIANT WITH AS1768-2007 LIGHTNING PROTECTION STANDARDS. ON STRUCTURES WITH STEEL FRAMES/POSTS ENSURE ELECTRICAL CONTINUITY AT ALL STRUCTURAL JOINTS BY USE OF PENETRATING LOCKING WASHERS TO BRIDGE ALL NON CONDUCTIVE COVERING/PAINT MATERIALS.

NOTE:

STEELWORK PAINTED TO MATCH EXISTING SHELTER'S COLOUR SCHEME.

BOQ - TYPICAL COMPONENT LIST - (TERCEL OR THOMPSON LIGHTING SYSTEMS) STAINLESS STEEL/ALUMINIUM SYSTEM (REDUCE RISK OF COPPER THEFT)

| DESC | QTY |
|--------------------------|-----|
| AIR ROD WITH BASE | 1 |
| GROUNDING DOWN CONDUCTOR | 9m |
| EARTH PIT/WELL | 1 |
| GROUNDING ROD CLAMP | 1 |
| GROUNDING ROD | 1 |

(LENGTH AS REQUIRED BY SOIL TYPE PROVIDE 100HMS OR LESS EARTH RESISTANCE)

| ISSUE | AMENDMENT | DRAWN DATE | CHK'D DATE | APPR'D DATE |
|-------|-----------------------|------------|------------|-------------|
| B | Drawing Title Amended | FEB '16 | JUL '16 | JUL '16 |
| A | ORIGINAL ISSUE | JUN '15 | JUN '15 | JUN '15 |

| | | | |
|---|--|------|---------|
| DRAWING AUTHORISED FOR PUBLICATION | | | |
| Ingo Condric 2019.06.30 11:33:31+10'00' | | | |
| ASSET ENGINEERING MANAGER STRATEGIC ASSET MANAGEMENT | | | |
| DESIGN APPROVED | | | |
| D. VAN DER WALLE APPROVED JUNE 2015 | | | |
| SENIOR CO-ORDINATOR PARKS ASSET SERVICES BRANCH - FIELD SERVICES GROUP | | | |
| DESIGN | J.K. | DATE | May '15 |
| DRAWN | J.K. | DATE | May '15 |
| CHECKED | J.K. | DATE | May '15 |
| DRAWING FILENAME | BSD-10133 (B) Roof Shelter - Park - Hybrid Lightning Protection System.dwg | | |
| ASSOCIATED PLANS | | | |



BRISBANE CITY COUNCIL STANDARD DRAWING

SCALE NOT TO SCALE

DWG No. **BSD-10133**

ROOF SHELTER - PARK HYBRID LIGHTNING PROTECTION SYSTEM

ORIGINAL SIZE A3 REVISION B