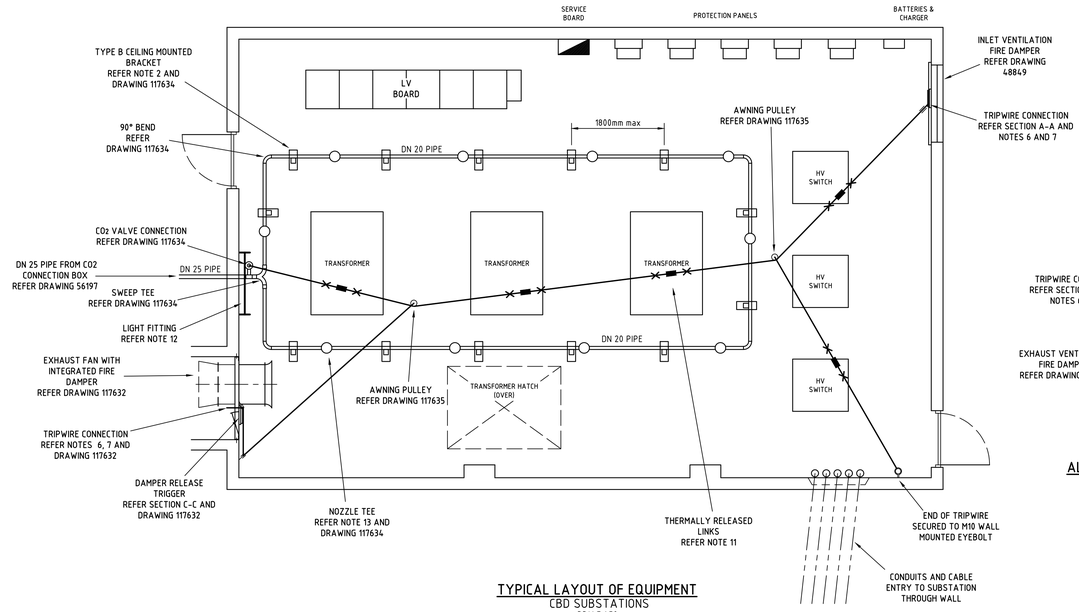
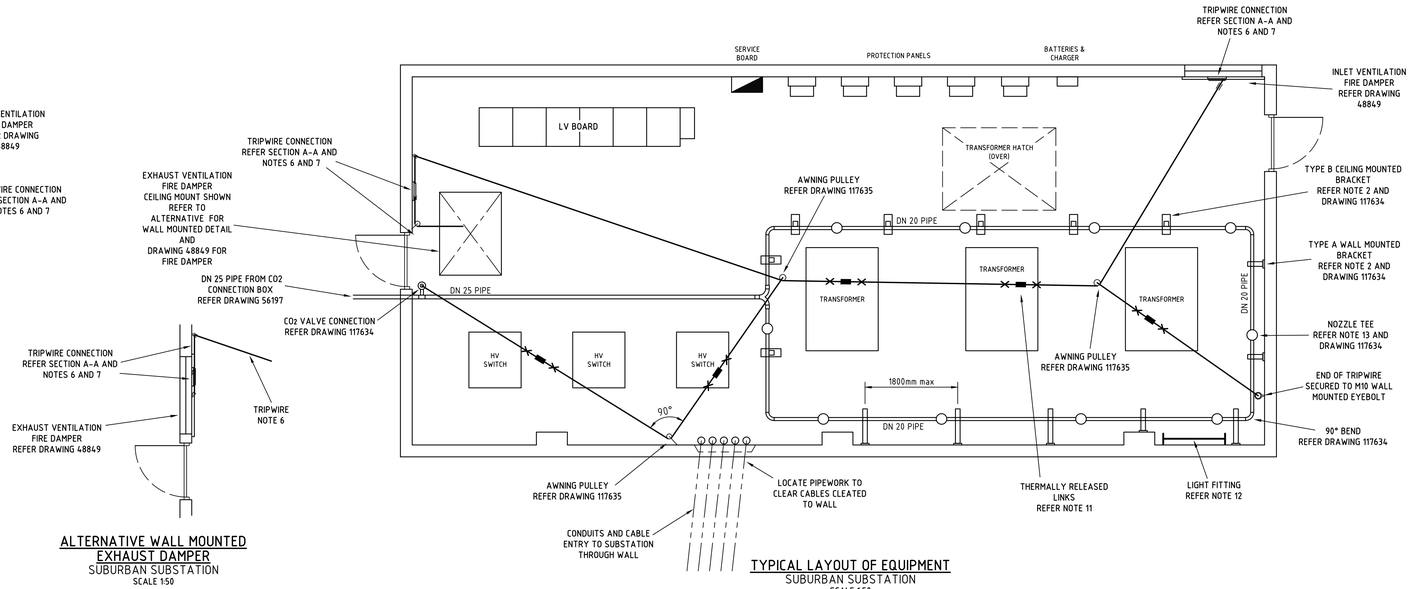
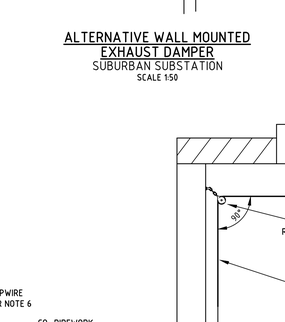


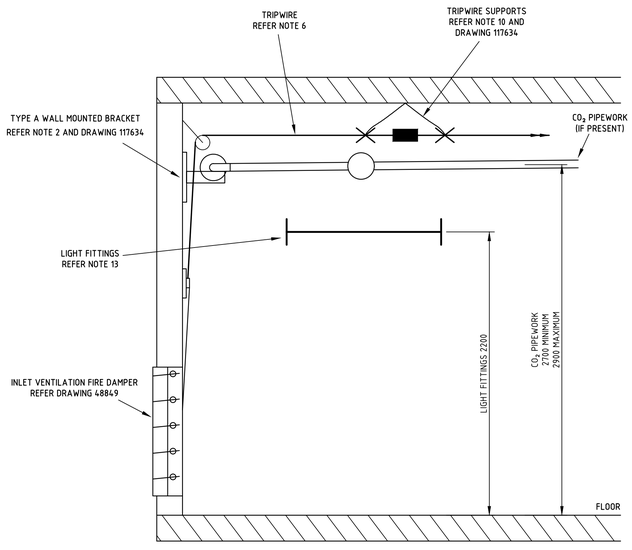
TYPICAL LAYOUT OF EQUIPMENT
CBD SUBSTATIONS
SCALE 1:50

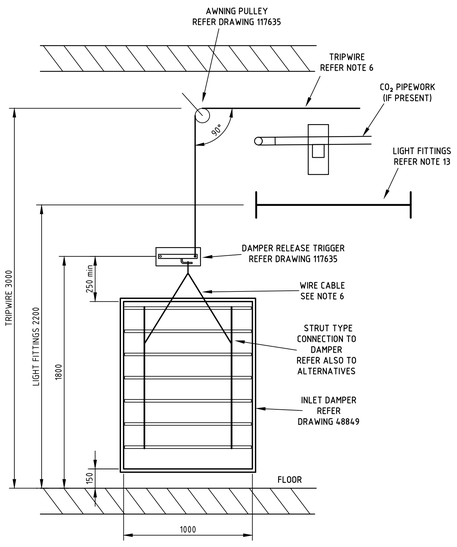




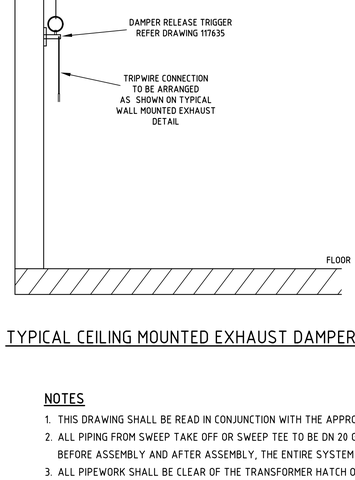
ALTERNATIVE WALL MOUNTED EXHAUST DAMPER
SUBURBAN SUBSTATION
SCALE 1:50

TYPICAL LAYOUT OF EQUIPMENT
SUBURBAN SUBSTATION
SCALE 1:50

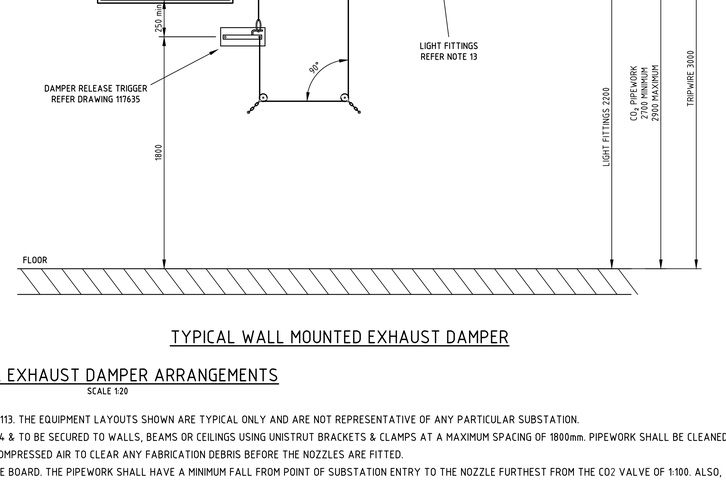




TYPICAL INLET DAMPER ARRANGEMENTS
SCALE 1:20

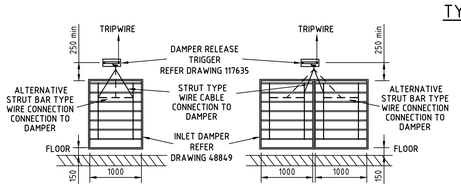


TYPICAL CEILING MOUNTED EXHAUST DAMPER



TYPICAL WALL MOUNTED EXHAUST DAMPER

TYPICAL EXHAUST DAMPER ARRANGEMENTS
SCALE 1:20



ALTERNATIVE WALL MOUNTED DAMPER CONNECTION ARRANGEMENTS
INLET DAMPER SHOWN
SCALE 1:50

REFERENCE DRAWINGS

BASEMENT SUBSTATION CHAMBER CO2 NOZZLE DETAILS	2064
SUBSTATION VENTILATION EXHAUST FAN MOUNTING PLATE	42416
SUBSTATION VENTILATION STANDARD MULTIBLADE FIRE DAMPER	48849
WALL MOUNTED CO2 CONNECTION BOX	56197
CBD BASEMENT SUBSTATIONS EXHAUST FAN ASSEMBLY	117632
CBD BASEMENT SUBSTATIONS EXHAUST FAN DAMPER DETAILS	117633
BASEMENT SUBSTATIONS CO2 PIPEWORK, BRACKETS AND DETAILS	117634
BASEMENT SUBSTATIONS CO2 ITEMS 1, 3 AND 9 DETAILS	117635

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE APPROPRIATE NETWORK STANDARD 113. THE EQUIPMENT LAYOUTS SHOWN ARE TYPICAL ONLY AND ARE NOT REPRESENTATIVE OF ANY PARTICULAR SUBSTATION.
2. ALL PIPING FROM SWEEP TAKE OFF OR SWEEP TEE TO BE DN 20 GALV. HEAVY TO A.S. CODE 1074 & TO BE SECURED TO WALLS, BEAMS OR CEILINGS USING UNISTRUT BRACKETS & CLAMPS AT A MAXIMUM SPACING OF 1800mm. PIPEWORK SHALL BE CLEANED BEFORE ASSEMBLY AND AFTER ASSEMBLY, THE ENTIRE SYSTEM SHALL BE BLOWN OUT WITH COMPRESSED AIR TO CLEAR ANY FABRICATION DEBRIS BEFORE THE NOZZLES ARE FITTED.
3. ALL PIPEWORK SHALL BE CLEAR OF THE TRANSFORMER HATCH OPENING AND THE LOW VOLTAGE BOARD. THE PIPEWORK SHALL HAVE A MINIMUM FALL FROM POINT OF SUBSTATION ENTRY TO THE NOZZLE FURTHEST FROM THE CO2 VALVE OF 1:100. ALSO, WHERE PIPEWORK ENTERS THE SUBSTATION CHAMBER AT A LEVEL LOWER THAN THE HEIGHT AT WHICH THE RING MAIN WILL BE INSTALLED, PROVIDE A DN 25 PIPE DROPPER 100mm LONG FITTED WITH A DN 25 CAP. THE CAP TO BE DRILLED WITH A Φ3 HOLE TO ALLOW FOR DRAINAGE OF THE PIPEWORK. REFER TO LOW ENTRY DRAIN DETAILS ON DRAWING 117634.
4. ALL FINISHED PIPEWORK SHALL BE SUITABLY PRIMED THEN GIVEN ONE COAT OF ENAMEL PAINT, COLOUR SIGNAL RED (R13) TO A.S. 2700S.
5. ALL CO2 NOZZLES EXCEPT WHERE OTHERWISE STATED TO BE Φ3 AND DISCHARGE DOWNWARDS. NOZZLES MUST NOT BE DIRECTED AT EQUIPMENT.
6. TRIPWIRE TO BE Φ4 GALVANISED FLEXIBLE STEEL WIRE ROPE 6/19 CONSTRUCTION & TO BE SECURED AT EACH END USING 2 BULLDOG CLAMPS.
7. TRIPWIRE SHALL BE POSITIONED APPROX 50mm ABOVE CO2 PIPEWORK & BE KEPT CLEAR OF TRANSFORMER HATCH OPENING AND THE LOW VOLTAGE BOARD.
8. AWNING PULLEYS SHALL BE PLACED SO THAT TRIPWIRES ARE NOT BENT AT ANGLES LESS THAN 90 DEGREES.
9. TRIPWIRE SHALL BE TENSIONED ON TRIGGERS BEFORE SETTING DAMPERS WITH A TENSION NOT EXCEEDING 180 N. THE MOVEMENT FOR SETTING OR ACTIVATING MANUAL CONTROLS TO BE LIMITED TO 350mm. ENSURE THE MOVEMENT ALLOWS RELEASE OF TRIGGERS.
10. PROVIDE TRIPWIRE SUPPORTS TO PREVENT ACTIVATED TRIPWIRE FALLING ONTO LIVE EQUIPMENT.
11. THERMALLY RELEASED LINKS TO BE IN ACCORDANCE WITH AS 1890. THE LINKS TO BE LEGIBLY STAMPED OR CAST WITH THE TEMPERATURE RATING (68°C), MAXIMUM WORKING LOAD (APPROX 60 KG), YEAR OF MANUFACTURE & THE MANUFACTURERS NAME OR IDENTIFYING SYMBOL. LINKS SHALL BE POSITIONED OVER OR IN CLOSE PROXIMITY TO TRANSFORMERS & HIGH VOLTAGE SWITCHES.
12. PIPEWORK, SUPPORT BRACKETS, AWNING PULLEYS AND TRIPWIRES ARE TO BE INSTALLED TO AVOID LIGHTS, CABLES, CONDUITS, ETC.
13. FOR THE NUMBER OF NOZZLES & CO2 BOTTLES REQUIRED FOR THE SUBSTATION, REFER TO TABLE ON DRAWING 117634. NOTE NOZZLES ARE TO PROVIDE COVERAGE OF OIL FILLED EQUIPMENT.

REFER TO DRAWING 117632 FOR EXHAUST FAN ARRANGEMENTS FOR CBD SUBSTATIONS

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

2 NEW DRAWING MADE
DRAWING REVISED AND ALTERED TO ALIGN WITH NETWORK STANDARDS. TYPICAL DAMPER ARRANGEMENTS UPDATED. ALTERNATIVE CONNECTIONS AND CEILING MOUNTED EXHAUST DAMPERS ADDED. CO2 NOZZLE ARRANGEMENTS ALTERED FOR COVERAGE OF OIL FILLED EQUIPMENT. — 22/09/2017 P JARVIS CHECKED. P TURRIN APPROVED. D GREEV

3 CONNECTIONS TO WALL MOUNTED EXHAUST DAMPER ALTERED. — 08/11/2017 P JARVIS CHECKED. P TURRIN APPROVED. D GREEV

4 BORDER & TITLE BLOCK UPDATED. — 09/09/2024 L MARTINUZZI CHECKED. M BENNETT APPROVED. M BENNETT

Ausgrid
24-28 Campbell Street
SYDNEY NSW 2000

ISSUED FOR CONSTRUCTION

SCALE	AS SHOWN
DESIGNED	-
DRAWN	CS
CHECKED	CS
APPROVED	PH
DATE	-
TRIM REF	-
PROJECT NUMBER	ES104-51-9-15

DISTRIBUTION SUBSTATIONS BASEMENT CHAMBERS FIRE PROTECTION CO2 PIPEWORK AND TRIPWIRE TYPICAL ARRANGEMENT AND DETAILS

DRAWING No 184970 | SHEET 1 | AMD 4 | SIZE B1

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