



- NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SUBSTATION LAYOUT DRAWING AND AUSGRID'S NETWORK STANDARDS.
  - EACH HV SWITCHGEAR PIT IS TO BE OF SUFFICIENT DEPTH TO ALLOW FOR CABLE BENDING RADII WITHIN THE PIT.
  - EACH HV PIT CAN BE EXTENDED BEYOND THE 2100mm, 3750mm AND 6000mm DIMENSIONS SPECIFIED ON THIS DRAWING TO ALLOW FOR CABLE ENTRY AND CABLE BENDING RADII. SOME EXAMPLES ARE SHOWN AND OTHERS MAY BE SUITABLE FOR THE SITUATION. IN ALL CASES OF PIT EXTENSION A MINIMUM OF 1000mm MUST BE MAINTAINED FROM THE EDGE OF THE SWITCH TO ANY WALL OR TO ANY WALL MOUNTED CABLE FIXINGS.
  - THE SUBSTATION EQUIPPING CONTRACTOR IS TO SUPPLY AND FIT THE SUPPORTING STEELWORK AND FLOOR PLATE COVERS TO SUIT THE ALLOCATED SWITCHGEAR.
  - THE POSITIONS OF SWITCHGEAR SUPPORTING CHANNELS AND INFILL FLOOR PLATE SHOWN ON THIS DRAWING IS INDICATIVE ONLY. SUPPORTING CHANNELS ARE TO BE LOCATED TO SUIT ALLOCATED SWITCHGEAR AND THE SIZE OF INFILL FLOOR PLATE IS TO BE ADJUSTED ACCORDINGLY. IN ALL CASES EACH PIECE OF FLOOR PLATE MUST MEET THE CRITERIA INDICATED IN NOTES 11 & 12. FLOOR PLATE IS TO BE CUT ON SUIT TO ALLOW CABLE ACCESS AS REQUIRED.
  - THE SWITCHGEAR SUPPORTING CHANNELS HAVE BEEN DESIGNED TO SUPPORT HV SWITCHGEAR WITH A MAXIMUM WEIGHT OF 720kg.
  - THE SUPPORT CHANNELS AND 100 x 75 x 5UA SUPPORT ANGLES ARE TO BE HOT DIP GALVANISED TO AS 4680. WHERE THE GALVANISING FINISH HAS BEEN DAMAGED, THE GALVANISING IS TO BE RESTORED BY TREATING WITH COLD GALVANISING PAINT SIMILAR TO ZINCFIX. PAINT APPLICATION IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
  - SWITCHGEAR SUPPORTING CHANNELS ARE TO BE CONTINUOUS, WELDED OR BOLTED SECTIONS ARE NOT PERMITTED. CHANNEL SUPPORTING ANGLES CAN BE IN MULTIPLE SECTIONS PROVIDED THEY ADEQUATELY SUPPORT SWITCHGEAR CHANNELS AND THEIR FIXINGS DO NOT INTERFERE WITH CONDUITS ENTRY.
  - THE 100 x 75 x 5UA SUPPORT ANGLES ARE TO BE FIXED TO PIT WALLS BY HILTI HVU CHEMICAL CAPSULES WITH M12 HAS-E-F GALVANISED RODS. THE RODS ARE TO BE EMBEDDED AT LEAST 125mm INTO THE PIT WALLS. EACH FIXING IS TO BE NOT MORE THAN 150mm FROM EACH END AND AT NOT MORE THAN 600mm CENTRES. SUPPORT ANGLES MUST BE FIXED TO PIT WALLS SUCH THAT WHEN THE SWITCHGEAR SUPPORTING CHANNELS AND INFILL FLOOR PLATE ARE INSTALLED THEY DO NOT REQUIRE PACKING TO BE LEVEL IN EACH DIRECTION.
  - FLOOR PLATE COVERS ARE TO BE 6mm THICK & ARE TO BE SUPPLIED AND FITTED BY THE EQUIPPING CONTRACTOR TO SUIT ALLOCATED SWITCHGEAR. FLOOR PLATE MUST BE FITTED BETWEEN HV SWITCHES WHEN A COMMON PIT IS USED. EACH PIECE OF FLOOR PLATE IS TO CONTAIN LIFTING EYES AS SHOWN IN THE TYPICAL FLOOR PLATE DETAIL AND IS TO BE HOT DIP GALVANISED TO AS 4680. THE FLOOR PLATES ARE TO BE STRAIGHTENED AFTER GALVANISING.
  - WHERE GALVANISING OF FLOOR PLATE COVERS HAS BEEN DAMAGED OR STEEL EDGES EXPOSED BY CUTTING, THE GALVANISING IS TO BE RESTORED BY TREATING WITH COLD GALVANISING PAINT SIMILAR TO ZINCFIX. PAINT APPLICATION IS TO BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
  - IF HV SWITCH SETOUT RESULTS IN AN UNCOVERED SPACE OF 100mm OR MORE BETWEEN THE SWITCH AND THE END OF THE PIT, THE SPACE MUST BE COVERED WITH 6mm FLOOR PLATE.
  - FLOOR PLATE COVERS SHALL NOT EXCEED 20kg IN MASS AND 600mm IN LENGTH AND ARE TO BE PROVIDED WITH TWO LIFTING EYES, ONE IN EACH END. SEE KEY HOLE & FLOOR PLATE DETAILS.
  - BEFORE INSTALLING EACH PIECE OF HV SWITCHGEAR THE EQUIPPING CONTRACTOR IS TO FIX EACH SUPPORTING CHANNEL TO THE SUPPORTING ANGLES WITH GALVANISED M12 NUTS AND BOLTS.
  - SWITCHGEAR FIXING HOLES ARE TO BE DRILLED ON SITE BY EQUIPPING CONTRACTOR TO SUIT SWITCHGEAR.
  - SWITCHGEAR FIXING NUTS, BOLTS & WASHERS ARE TO BE A MINIMUM SIZE OF M12 & ARE TO BE HOT DIP GALVANISED TO A.S. CODE 1214.

CAD DRAWING: A.M.E.N.D.I.E.N.T.S.  
 1. FLOOR PLATE SIZE IN NOTE 11 UPDATED.  
 P.N. 288-4-9-2.  
 CHECKED: M. THOMPSON  
 APPROVED: M. THOMPSON  
 2. SWITCHGEAR SUPPORT BEAMS WHERE SUBSTIT. SUPPORTING BEAMS NEW SUPPORTING BEAMS NOTES DELETED. REMAINING NOTES RE-NUMBERED.  
 P.N. 05209-1-55-2.  
 CHECKED: P. JARVIS  
 APPROVED: P. JARVIS  
 3. SINGLE SWITCH PIT NOW 2.1m LONG, TWO SWITCH PIT NOW 3.75m LONG & THREE SWITCH PIT NOW 6.0m LONG. INTERNAL PIT WIDTH NOW 1.3m. SECTION A-A & DETAIL 1 UPDATED. SWITCHGEAR SUPPORT CHANNEL BEAMS REFER TO DETAIL 1. KEY/HAND HOLE & TYPICAL FLOOR PLATE DETAILS ADDED.  
 P.N. 310-9-17  
 CHECKED: P. JARVIS  
 APPROVED: P. JARVIS  
 4. DRAWING BORDER NOTES UPDATED.  
 P.N. 05209-1-55-2.  
 CHECKED: P. JARVIS  
 APPROVED: P. JARVIS  
 5. NEW DRAWING BORDER NOTES ADDED.  
 P.N. 05209-1-55-2.  
 CHECKED: P. JARVIS  
 APPROVED: P. JARVIS  
 6. SUPPORT CHANNEL FIXING DIMENSION WAS 45mm IN PREVIOUS EDITION. DIMENSIONS OF 60mm MS FLAT CLARIFIED IN DETAIL 2.  
 P.N. 05209-1-55-1  
 DATE: 16-11-2018  
 CHECKED: C. HABBUTT  
 APPROVED: P. JARVIS

**CONSTRUCTION**

NETWORK STANDARD  
**Ausgrid**  
 DISTRIBUTION OPERATIONS & RELIABILITY  
 LOGISTICS AND DISTRIBUTION ENGINEERING  
 25-27 POMEROY STREET, HOMEBUSH

SCALE	AS SHOWN
DESIGNED	P. JARVIS
DRAWN	L. ROBINSON
CHECKED	M. THOMPSON
APPROVED	M. THOMPSON
DATE	04/06/2008
PROJECT NUMBER	208/6/9/1
PROJ/TRAK NUMBER	

CUSTOMER CHAMBER SUBSTATIONS  
 HV PIT CONSTRUCTION AND  
 HV SWITCHGEAR SUPPORT STEELWORK

SHEET 1 OF 5  
 DRAWING NO. 191085