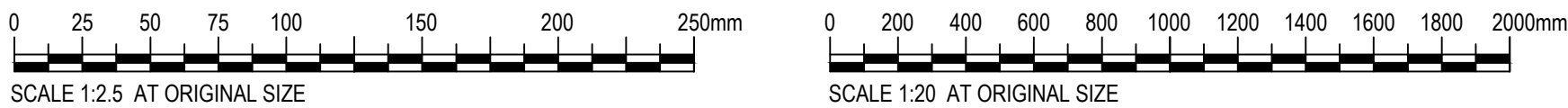


THIS DRAWING MAY ONLY BE USED IN THE COURSE OF AND FOR THE PURPOSE OF CREATING SYDNEY WATER ASSETS.
USE THIS DRAWING WITH CARE. THE USER IS RESPONSIBLE FOR THE CORRECT APPLICATION OF THIS DRAWING.

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DEEMED TO COMPLY DRAWINGS 2320 AND 2321 AND SW DRAWING 'WBS 232'.
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
3. VENTILATION SHAFT DESIGN IS BASED ON AS/NZS 1170.2:2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS. ULTIMATE DESIGN AND WIND SPEED ≤ 52 m/s.
4. ALL STAINLESS STEEL PLATES SHALL BE GRADE 316L TO ASTM A240/A240M: 2019.
5. ALL STAINLESS STEEL PIPES SHALL BE TO ASTM A312/A312M AND SHALL NOT BE COMPOSED OF LENGTHS OF PIPES WELDED TOGETHER.
6. ALL BOLTS GRADE A4-70. BOLTS SHALL BE TIGHTENED AS PER 'TYPE TB' REQUIREMENTS. ASSEMBLY TORQUE: M16 = 180Nm, M20 = 350Nm.
7. ALL WELDS ARE TO BE FACTORY WELDED WITH:
 - a. SUB-SURFACE (INTERNAL) QUALITY: CATEGORY 1
 - b. SURFACE (EXTERNAL) WELD QUALITY: CLASS A
 - c. SURFACE CONDITION: SURFACE CONDITION II-CLEANED
8. AS PER AS/NZS 1554.6 - WELDING STAINLESS STEELS FOR STRUCTURAL PURPOSES.
9. THE ATMOSPHERE WITHIN VENTILATION SHAFTS IS CONSIDERED TO BE CORROSIVE IN REGARD TO AS1554.6.
10. E316LXX ELECTRODES TO BE USED.
11. NON-DESTRUCTIVE EXAMINATION OF WELDS SHALL BE TO AS1554.6 TABLE 7.4 FOR WELD CATEGORY 1A AND ALL FLANGE WELDS SHALL BE EXAMINED BY LIQUID PENETRANT OR RADIOGRAPHY/ULTRASONIC.
12. ALL WELDS ARE TO BE FACTORY PICKLED AND PASSIVATED IN ACCORDANCE WITH ASTM A380.
13. THE DIMENSIONS OF EXISTING CAST-IRON VENT SHAFT BASE ARE BASED UPON THE INFORMATION PROVIDED IN THE ORIGINAL DRAWINGS. THE CURRENT INTERNAL DIMENSIONS MAY HAVE CHANGED AS A RESULT OF AGING, DETERIORATION AND CORROSION. CONTRACTOR TO VERIFY DIMENSIONS ON SITE.
14. IT IS REQUIRED TO CHECK DETERIORATION AND CORROSION OF THE CAST-IRON BASES BY VISUAL INSPECTION AND CHECK GRAPHITISATION (GRAPHITIC CORROSION) LOSS BY MEANS OF A MAGNET. REPORT DETERIORATION/CORROSION OF GREATER THAN 0.5mm TO THE ENGINEERING TEAM.

- C1. RISK ASSESSMENT TO IDENTIFY HAZARDS AS PER SWC TECHNICAL SPECIFICATION - CIVIL. IDENTIFY TEMPORARY ODOUR CONTROL REQUIREMENTS.
- CS2. PREPARE SWMS FOR ENGINEER'S APPROVAL ESPECIALLY THE SEALING GASKET FOR EPOXY GROUT INJECTION, TEMPORARY SUPPORTS AND INJECTION METHODOLOGY. EXPECT TO HAVE TWO STAGES OF GROUT INJECTION - FIRST STAGE APPROX 30mm DEEP (USING FAST SETTING NORMAL EPOXY GROUT) TO CONFIRM IF THE SEAL IS GOOD BY MEANS OF UNDER-CARRIAGE MIRROR INTO THE BOTTOM OF PIPE SPOOL. SECOND STAGE USING LOW VISCOSITY EPOXY GROUT TO FILL THE ENTIRE VOID.
- CS3. REMOVAL OF THE EXISTING VENT PIPE INCLUDING THE SEGMENT INSIDE THE CAST-IRON BASE.
- CS4. CLEAN THE INTERNAL C.I. SURFACE BY WIRE BRUSHING OR GRINDING (OR SIMILAR METHOD) TO REMOVE LOOSE RUST, OIL AND FOREIGN MATTER TO PROMOTE GROUT BONDING. REFER TO THE 'CONBEXTRA EP65 PLUS' PRODUCT TDS FOR MORE INFORMATION.
- CS5. FABRICATE AND INSTALL THE REPLACEMENT VENT PIPE SPOOL INTO THE CAST-IRON BASE.
- CS6. PLUMB AND FIX THE REPLACEMENT VENT PIPE SPOOL WITH TEMPORARY SUPPORTS.
- CS7. EPOXY GROUT INJECTION AS PER THE SUPPLIER'S RECOMMENDATIONS AND AGREED SWMS TO FILL THE ENTIRE VOID TO ALLOW LOAD TRANSFER BETWEEN THE TWO MATING PARTS. REFER TO STAGES 1-2 IN DETAIL A - SECTIONAL ELEVATION.
- CS8. KEEP THE REPLACEMENT VENT PIPE SPOOL STEADY FOR TWO DAYS FOR THE EPOXY GROUT TO SET AND CURE.
- CS9. PROCEED WITH THE INSTALLATION OF REMAINING VENT PIPE SEGMENTS.



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ENGINEERING & TECHNICAL SUPPORT

A	ORIGINAL ISSUE	N.S.	13.03.25
LETTER	DETAILS OF ISSUE / AMENDMENT	APP'D	DATE

VENTILATION SHAFT INSTALLATION

OD150 PIPE SPOOL PIECE TYPE 1

WITH STANDARD CI BASE TYPE B

ISSUE	DATE
A	13/03/20