

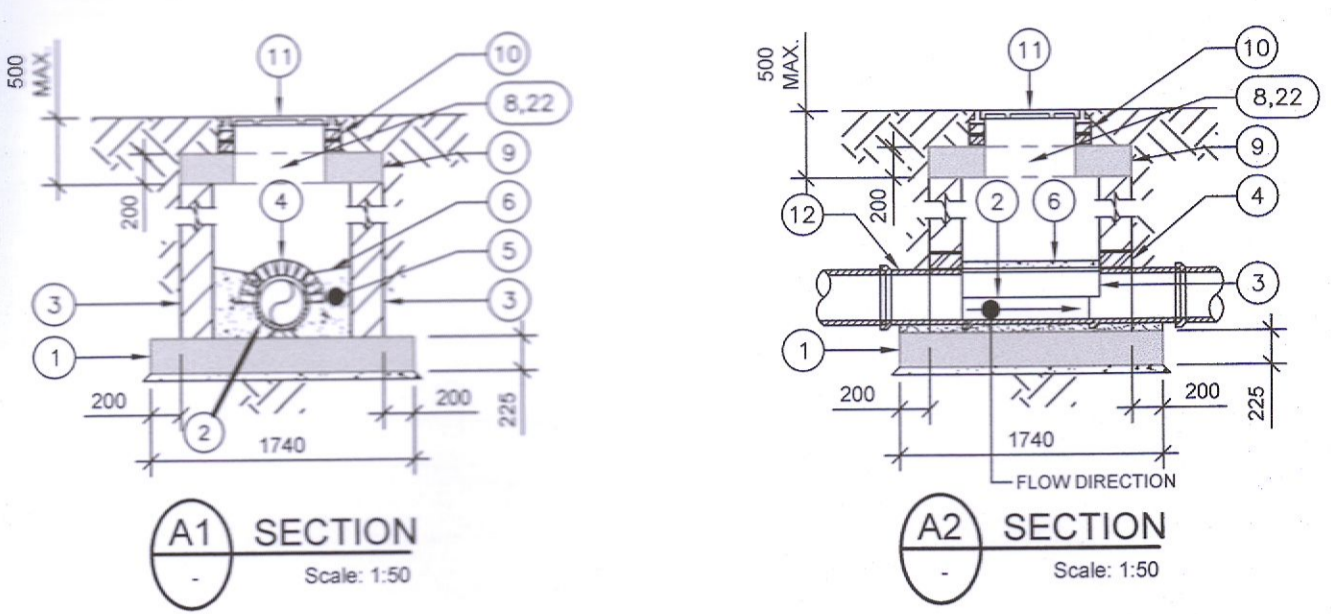
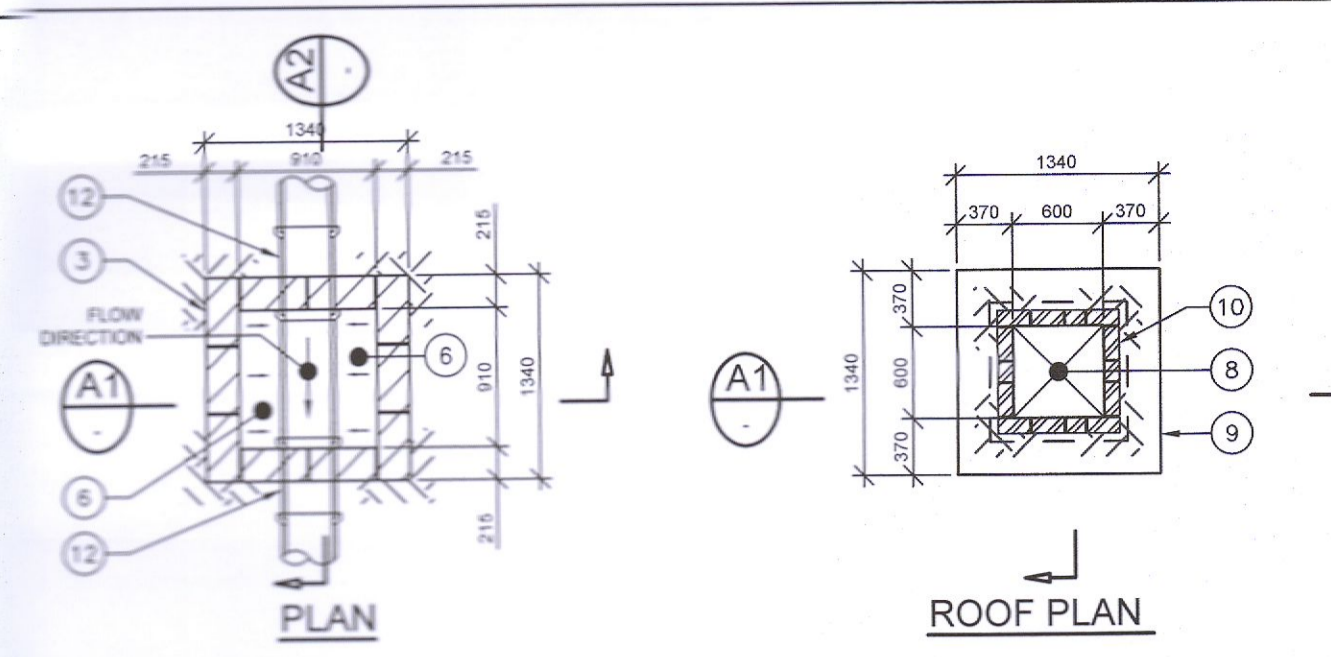
NOTES

- THIS DRAWING TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
- FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. ALL DIMENSIONS TO BE CHECKED ON SITE. ENGINEER TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

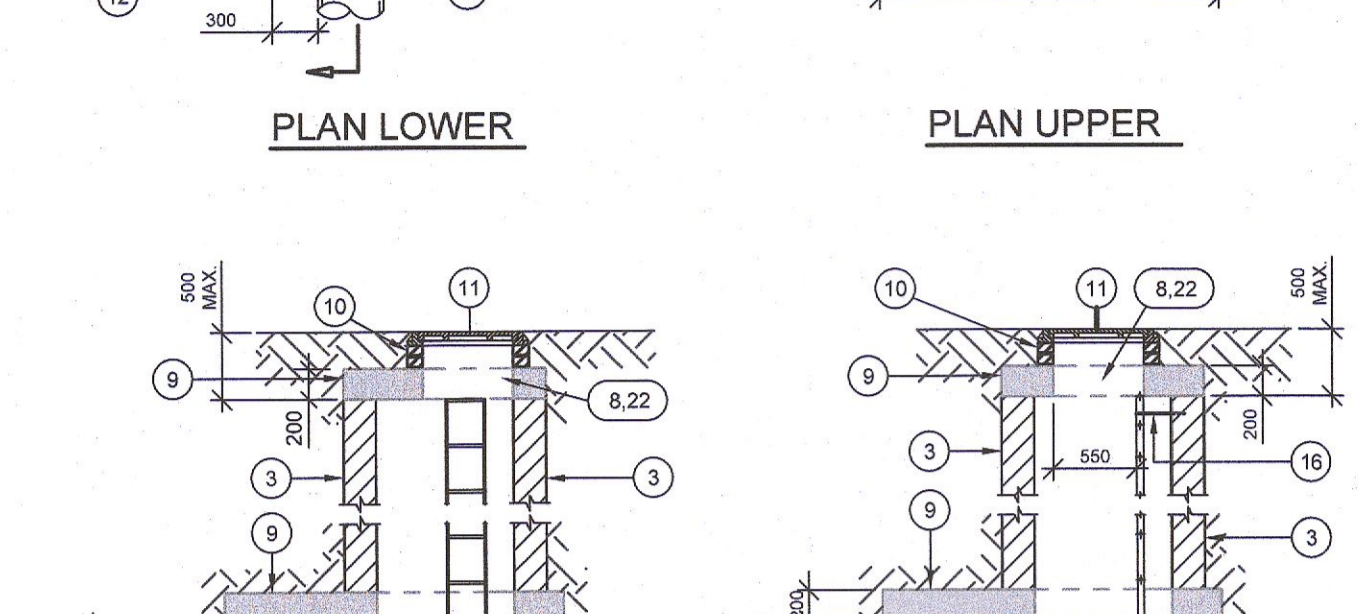
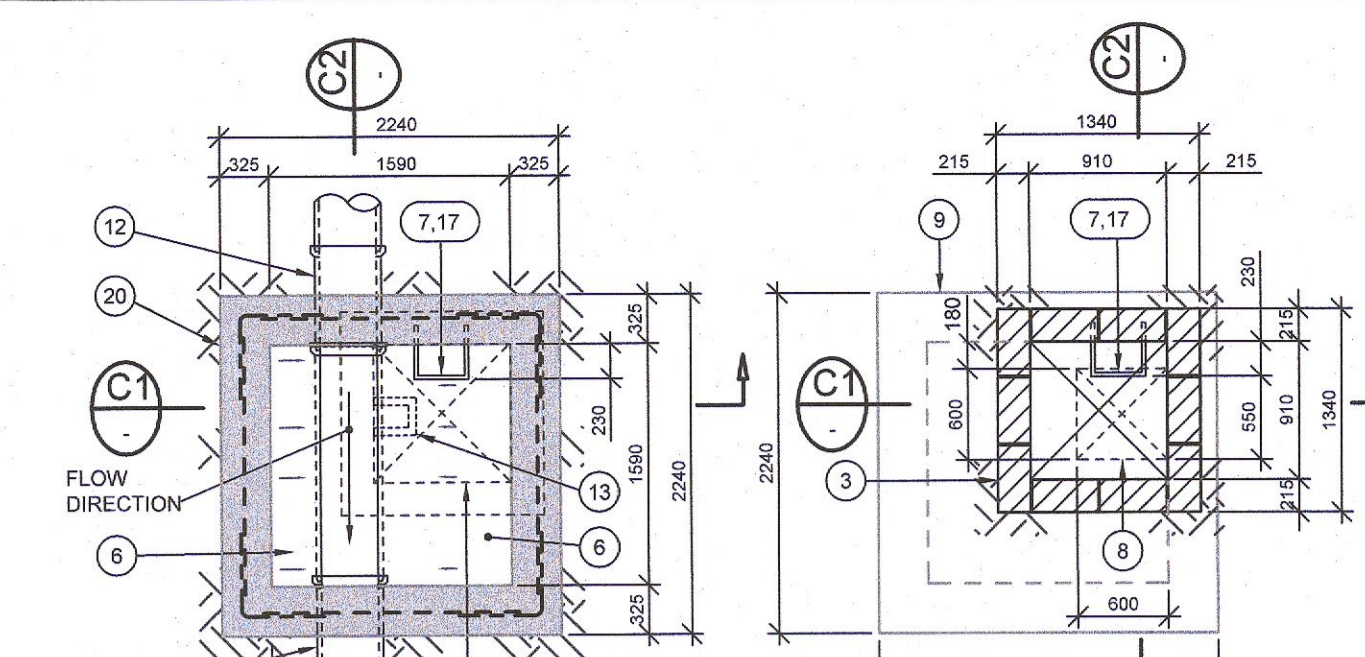
NOTES

- 225mm THICK C30/37 MASS CONCRETE FOUNDATIONS.
- PREFORMED HALF CIRCLE CHANNEL PIPES, THE PIPELINE MAY, WHERE PRACTICABLE, BE LAID THROUGH THE MANHOLE & THE CROWN CUT OUT TO HALF DIAMETER PROVIDED FLEXIBLE JOINTS ARE SITUATED ON EACH SIDE NO FURTHER THAN 600mm FROM THE INNER FACE OF MANHOLE WALL.
- NOTE: WHERE PIPE DIAMETER CHANGES AT A MANHOLE PIPE CROWNS TO LINE UP.
- MANHOLE CONSTRUCTION:
 - FOR SURFACE WATER MANHOLES HIGH-DENSITY BLOCKS 20N STRENGTH TO IS EN 171 OR C30/37 IN-SITU CONCRETE TO IS EN 206.
 - BLOCK WORK SHALL BE BEDDED & JOINTED USING MORTAR TO IS 406. BEDS & VERTICAL JOINTS SHALL BE COMPLETELY FILLED WITH MORTAR AS THE BLOCKS ARE LAID.
 - JOINTS SHALL BE FLUSH POINTED AS THE WORK PROCEEDS.
 - ALL FOUL MANHOLES MUST BE FACED IN SOLID ENGINEERING BRICK (MIN. CLASS 'A' OR 'B') OR IN-SITU CONCRETE FOR 1m ABOVE FINISHING LEVEL. BRICK TO BE BONDED TO BLOCK WORK USING ENGLISH GARDEN WALL BOND.
 - MAXIMUM DEPTH OF BLOCK WORK MANHOLE IS 1.20m (THE USE OF BLOCK WORK IN DEEPER MANHOLES WILL BE CONSIDERED BUT SUCH USE WILL REQUIRE DETAILED STRUCTURAL DESIGN AND WRITTEN APPROVAL FROM IRISH WATER).
- RELIEVING ARCH FORMED BY 215 x 105 x 65 SOLID ENGINEERING BRICK CLASS 'A' OR 'B' RELIEVING ARCHES USED IN BRICK OR BLOCK WORK MANHOLES EXTEND OVER FULL THICKNESS OF WALL. A DOUBLE ARCH IS TO BE FORMED FOR PIPE DIAMETERS GREATER THAN 600mm.
- BENCHING & PIPE CHANNEL PIPE SURROUND - C25/30 CONCRETE
- BENCHING FINISHED IN 2:1 SAND-CEMENT MORTAR WITH A SMOOTH TROWEL FINISH, AT 1 IN 30 SLOPE TOWARDS CHAMBER.
- STANDARD RINGS AT 300 VC VERTICALLY & GALVANISED TO THE LATEST VERSION OF BS 729 OR EQUIVALENT. NOTE: STEP IRONS ARE NOT ACCEPTABLE.
- 600mm SQUARE OPE IN ROOF SLAB.
- PRECAST R.C. ROOF SLAB SHALL BE 200mm THICK IN GRADE C 30/37, WITH 40mm COVER TO STEEL. DESIGNED TO BS 8100 TO TAKE FULL TRAFFIC LOADING.
- PRECAST R.C. ROOF SLAB SHALL BE 200mm THICK IN GRADE C 30/37, WITH 40mm COVER TO STEEL. DESIGNED TO BS 8100 TO TAKE FULL TRAFFIC LOADING.
- 1 TO 3 COURSES OF SOLID ENGINEERING BRICKS CL. 'B' TO IS EN 998 SET IN M30 MORTAR.
- CLASS D400 OR E600 MANHOLE COVER & FRAME TO IS EN 124. 150mm DEEP FRAME FOR ROADS & 100mm DEEP FOR FOOTPATHS & GREEN AREAS. NON-SKID DESIGN. CLOSED YARDS, MANUFACTURED FROM SPECIAL GRAFITE CAST IRON (DUCTILE CAST IRON), 600 x 600 (900) CLEAR OPENING. COVER & FRAME COATED IN BITUMEN OR OTHER APPROVED MATERIAL COVER TO HAVE A MINIMUM MASS OF 1400g/m². FRAME BEARING AREA SHALL BE 80000mm² MIN. FRAMES SHALL BE DESIGNED TO PREVENT COVERS FALLING INTO MANHOLE. FRAMES SHALL BE BEDDED ON APPROVED MORTAR TO MANUFACTURERS' INSTRUCTIONS.
- SHORT LENGTH PIPE & PIPE JOINT EXTERNAL TO MANHOLE SHALL NOT EXCEED 600mm FROM THE INNER FACE OF MANHOLE WALL.
- TOE HOLES OF 230mm MINIMUM DEPTH & GALVANISED STEEL SAFETY RAILINGS TO BE PROVIDED IN BENCHING OF SEWERS GREATER THAN 525mm Ø & DEPTH TO INVERT 3m FOR ACCESS TO INVERT.
- A STAINLESS STEEL SAFETY CHAIN IS TO BE PROVIDED ON PIPES THAT EXCEED 450mm IN DIAMETER, CURVING WITH 90° OR EQUIVALENT.
- WHEN DEPTH OF MANHOLES TO INVERT IS GREATER THAN 3.0m LADDERS SHALL BE USED. INSTEAD OF RINGS TO 8.411 OR EQUIVALENT EXCEPT THAT STRINGERS SHOULD BE NOT LESS THAN 65 x 12mm IN SECTION & RINGS 25mm IN DIAMETER. FRIED LADDERS SHALL MEET DIMENSIONAL REQUIREMENTS OF BS 8211 OR EQUIVALENT. DISTANCE FROM THE TOP RUNG OF THE LADDER TO GROUND LEVEL SHOULD NOT EXCEED 500mm.

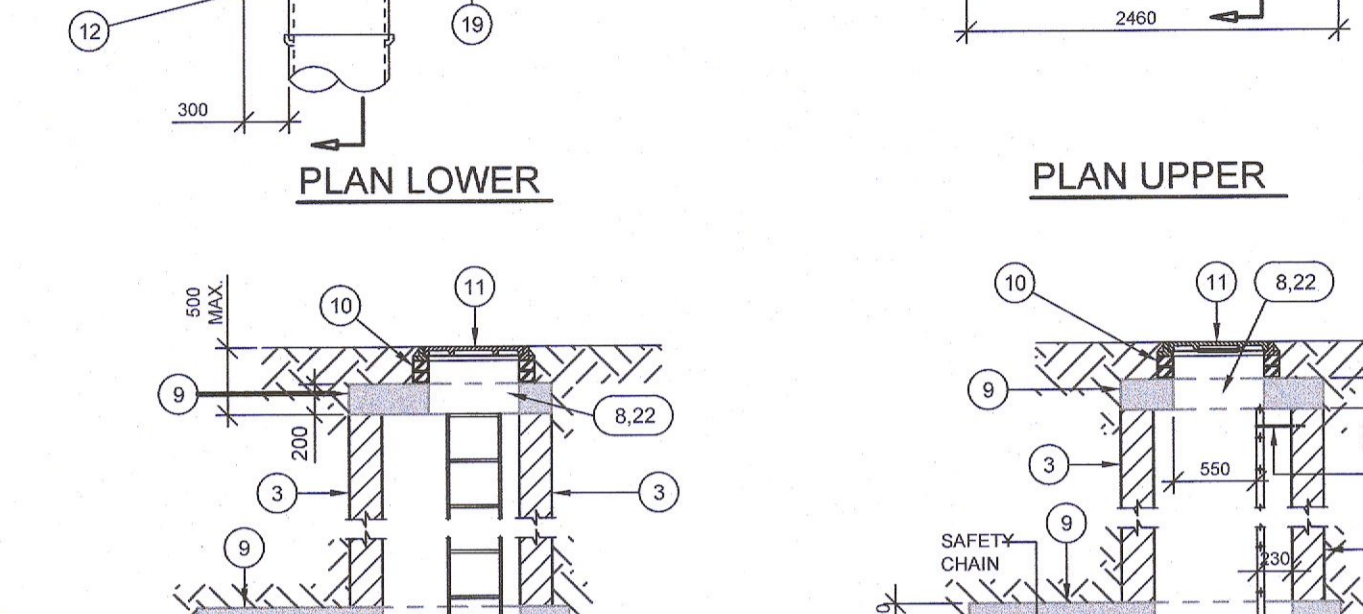
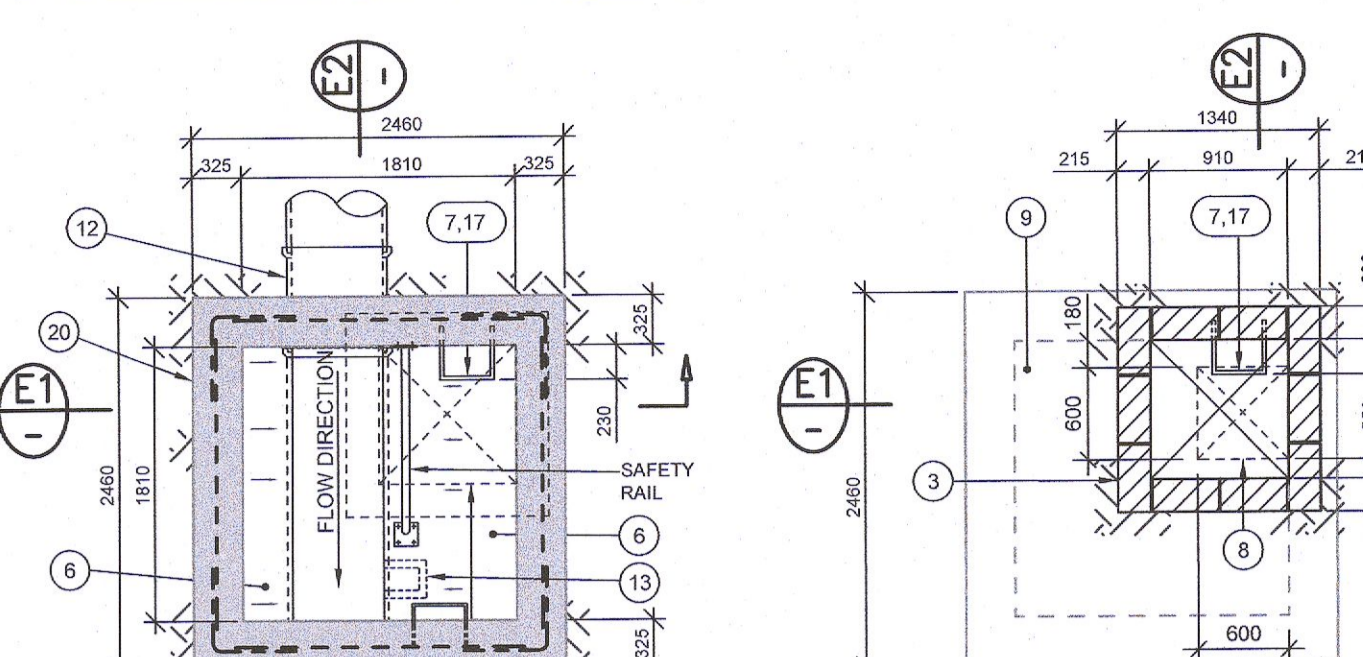
PRECAST MANHOLES NOT PERMITTED WITHIN DCC AREA.



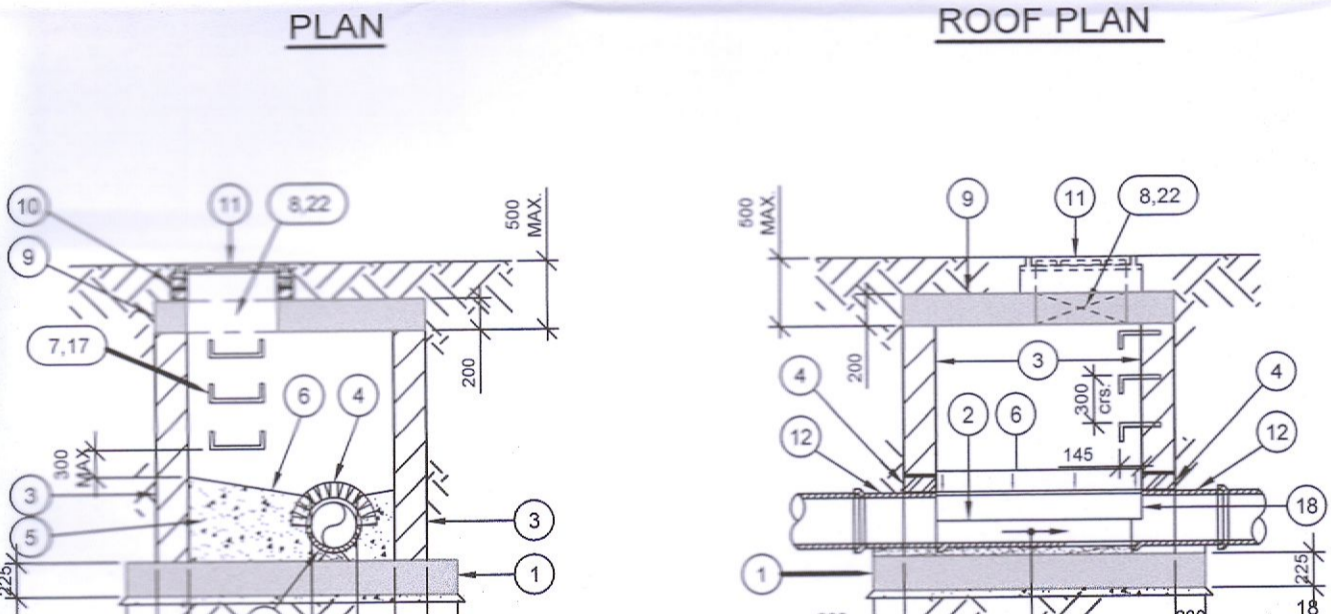
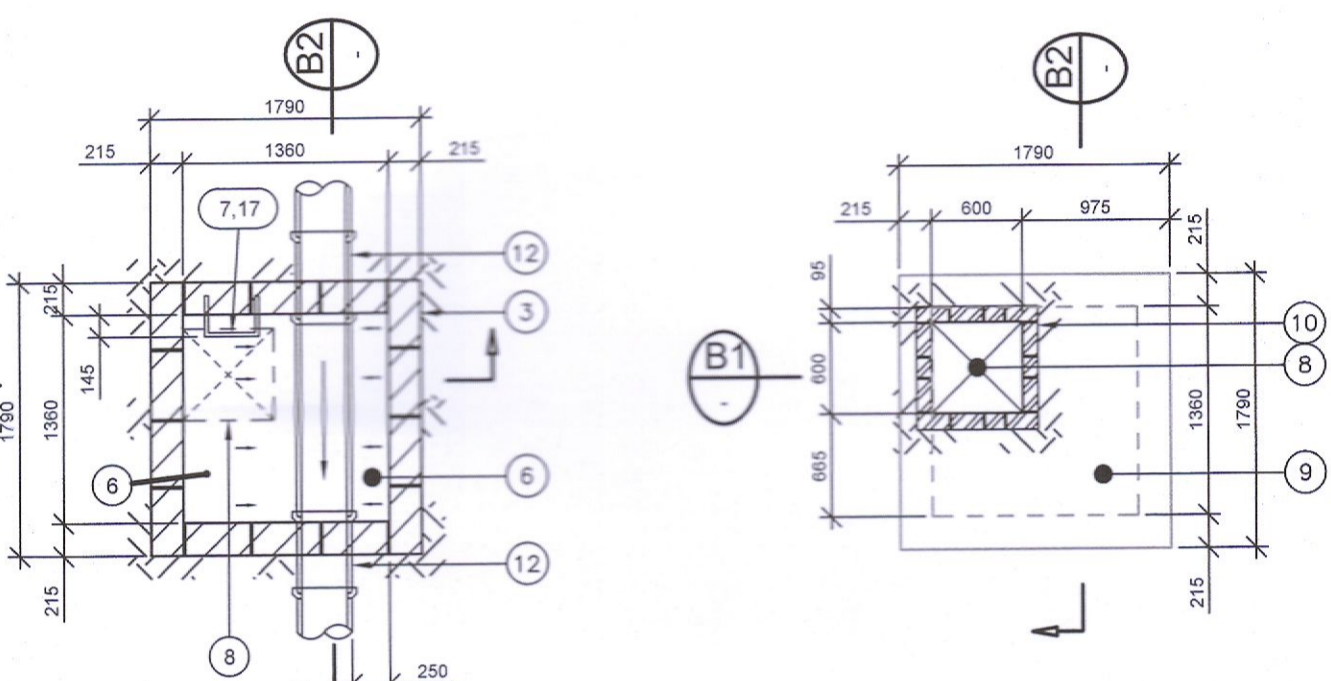
MANHOLE TYPE A (FOR PIPE DIAMETERS 150, 225, 300, 375, 450 mm) DEPTH TO INVERT < 1m



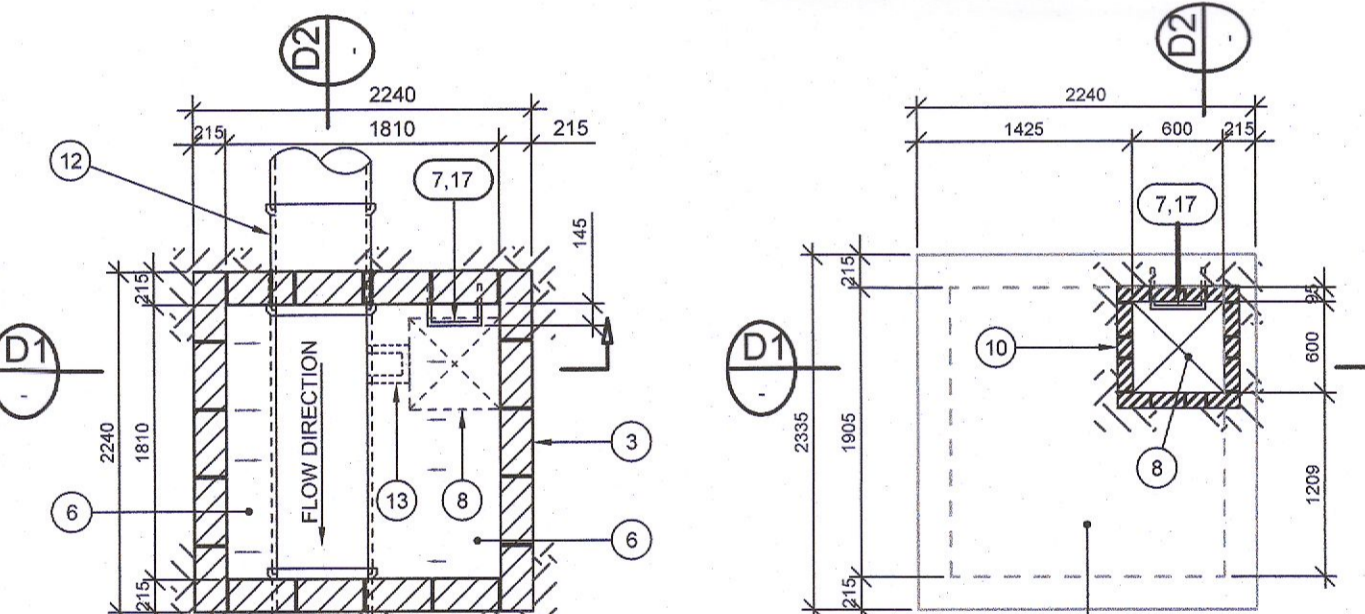
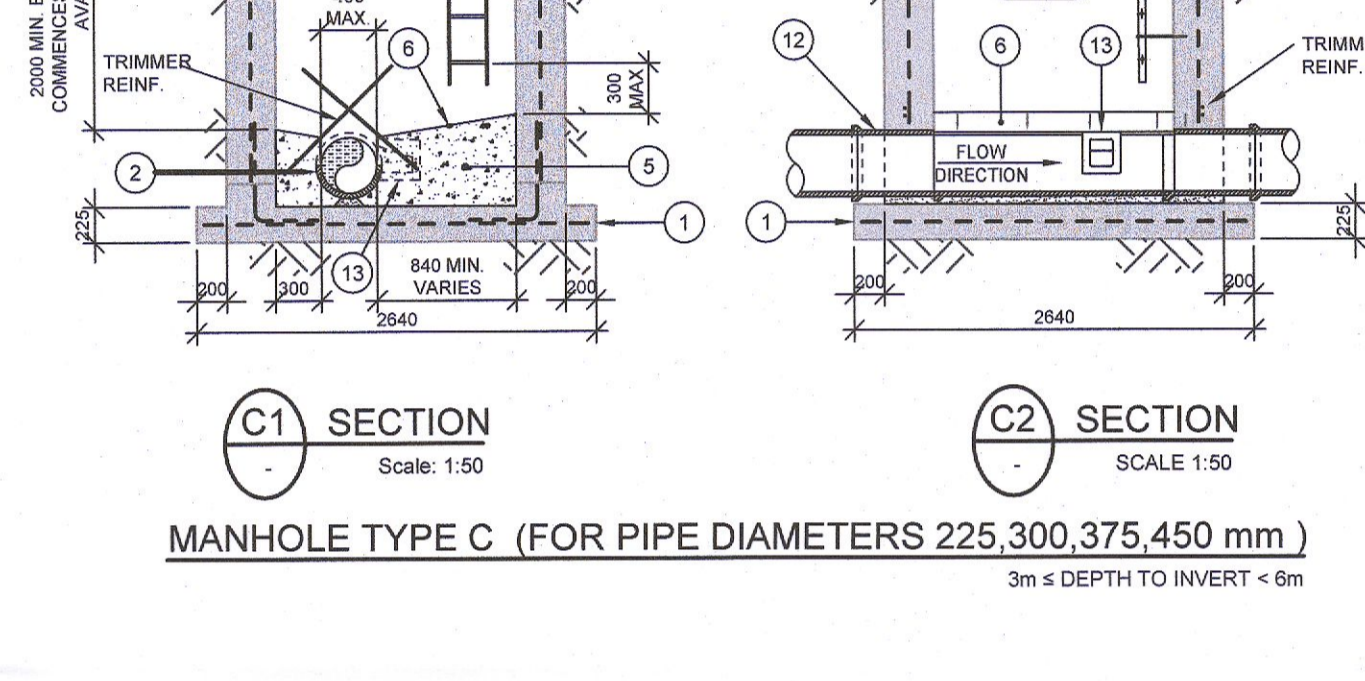
MANHOLE TYPE C (FOR PIPE DIAMETERS 225, 300, 375, 450 mm) 3m < DEPTH TO INVERT < 6m



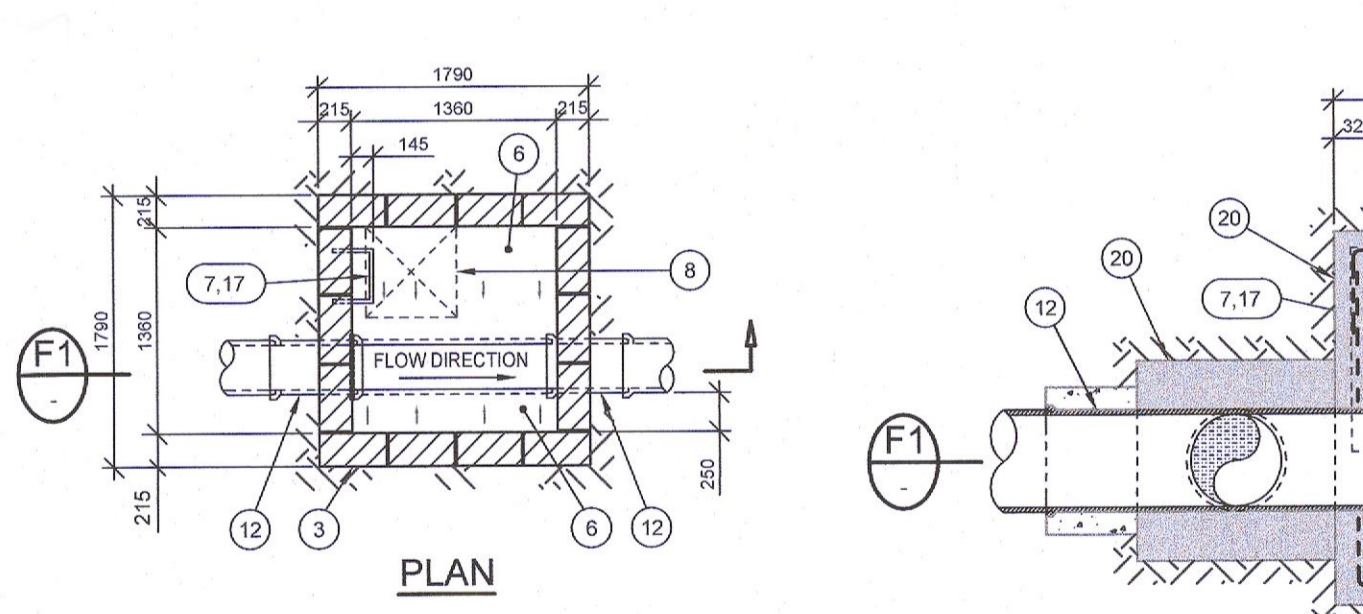
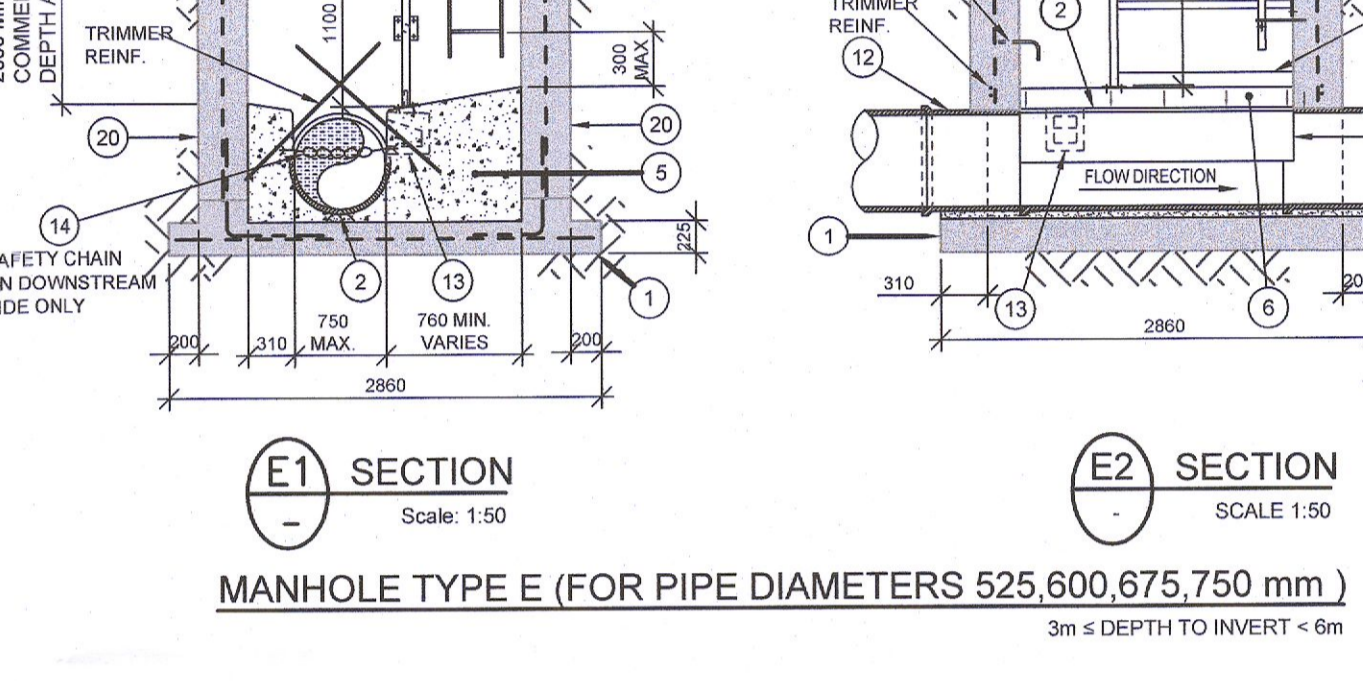
MANHOLE TYPE E (FOR PIPE DIAMETERS 525, 600, 675, 750 mm) 3m < DEPTH TO INVERT < 6m



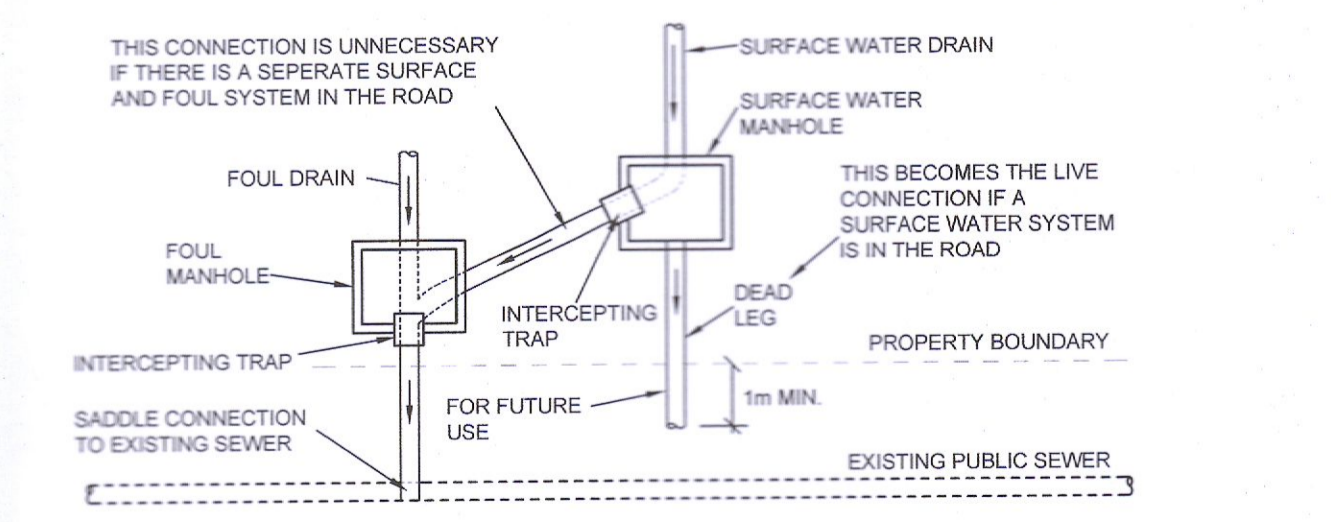
MANHOLE TYPE B (FOR PIPE DIAMETERS 225, 300, 375, 450 mm) 1m < DEPTH TO INVERT < 3m



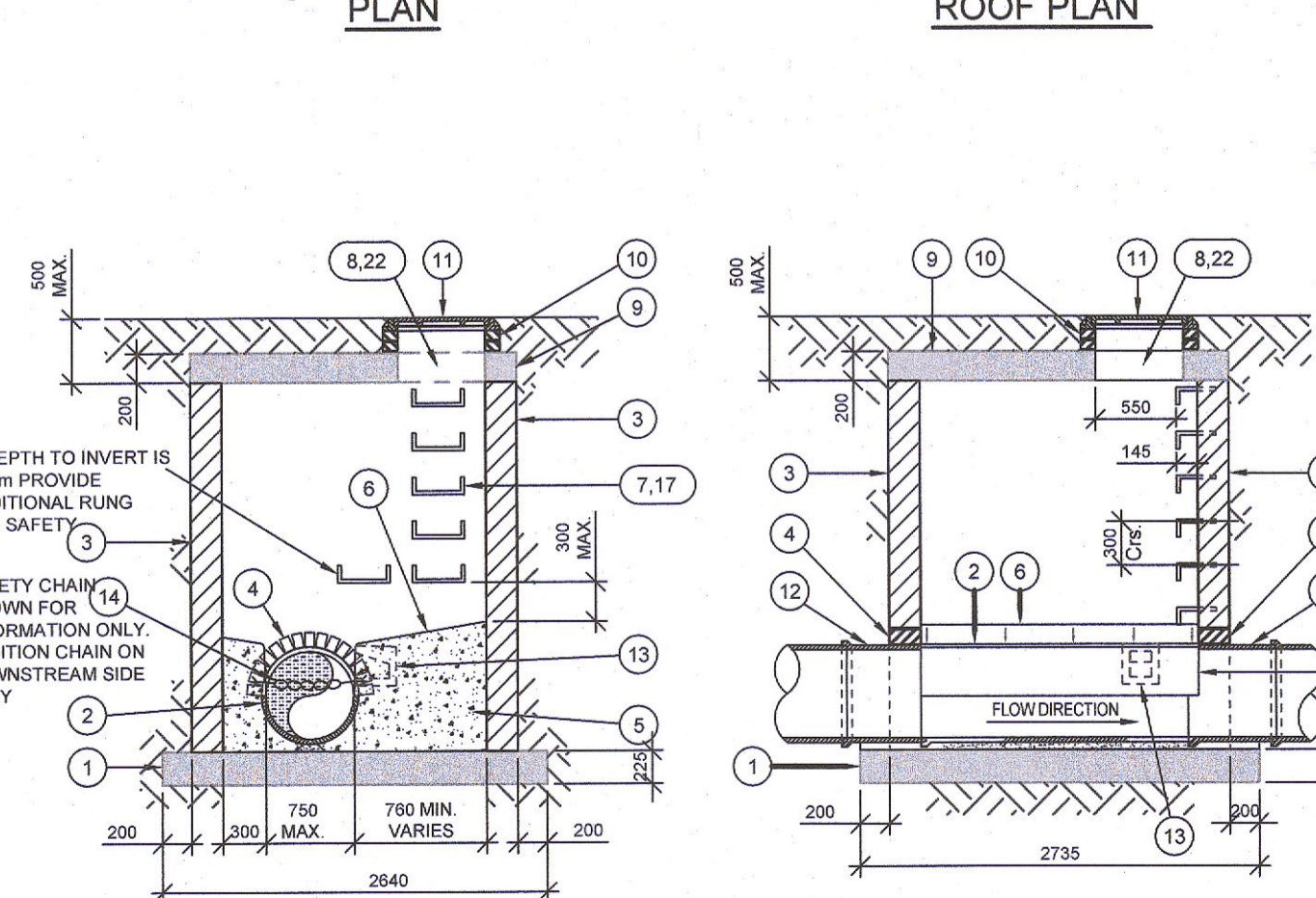
MANHOLE TYPE D (FOR PIPE DIAMETERS 525, 600, 675, 750 mm) 1m < DEPTH TO INVERT < 3m



MANHOLE TYPE F (FOR PIPE DIAMETERS 150-750 mm) RAMP MANHOLE



PLAN OF SEPARATE CONNECTION TO COMBINED SEWER N.T.S.



MANHOLE TYPE G BACKDROP MANHOLE FOR ALL PIPE DIAMETERS 225-750 mm

TABLE F

INLET Ø mm	DEPTH (max) mm
A	H
225	600
300	600
375	750
450	750
525	750
600	750
750	750

WHEN THE DROP 'H' IS GREATER THAN THE MAX VALUE SHOWN USE BACKDROP MANHOLE

MANHOLE TYPE F RAMP MANHOLE (FOR PIPE DIAMETERS 150-750 mm) SCALE 1:50

MANHOLE TYPE G BACKDROP MANHOLE FOR ALL PIPE DIAMETERS 225-750 mm

DROP > 600 FOR 225 & 300 PIPE DIAMETERS
DROP > 750 FOR GREATER PIPE DIAMETERS

Rev	Date	ISSUED FOR PLANNING	AG	IC
P01	07.07.22	ISSUED FOR PLANNING	AG	IC

PROJECT
PROPOSED DWELLING AT
No. 46 LIMELIKN ROAD, DUBLIN 12

CLIENT
JOHN McWEENEY

DRAWING TITLE
MANHOLE DETAILS
SHEET 1 OF 2

drawn by: AG date: 07.07.22 scale: N.T.S. @ A1 chk: IC

LIME - DOW - 00 - XX-DR-CE

Project	Originator	Volume	Level	Type	Role
21019	4000	P01			

S4: SUITABLE FOR PLANNING
Suitability Status: Code - Description

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