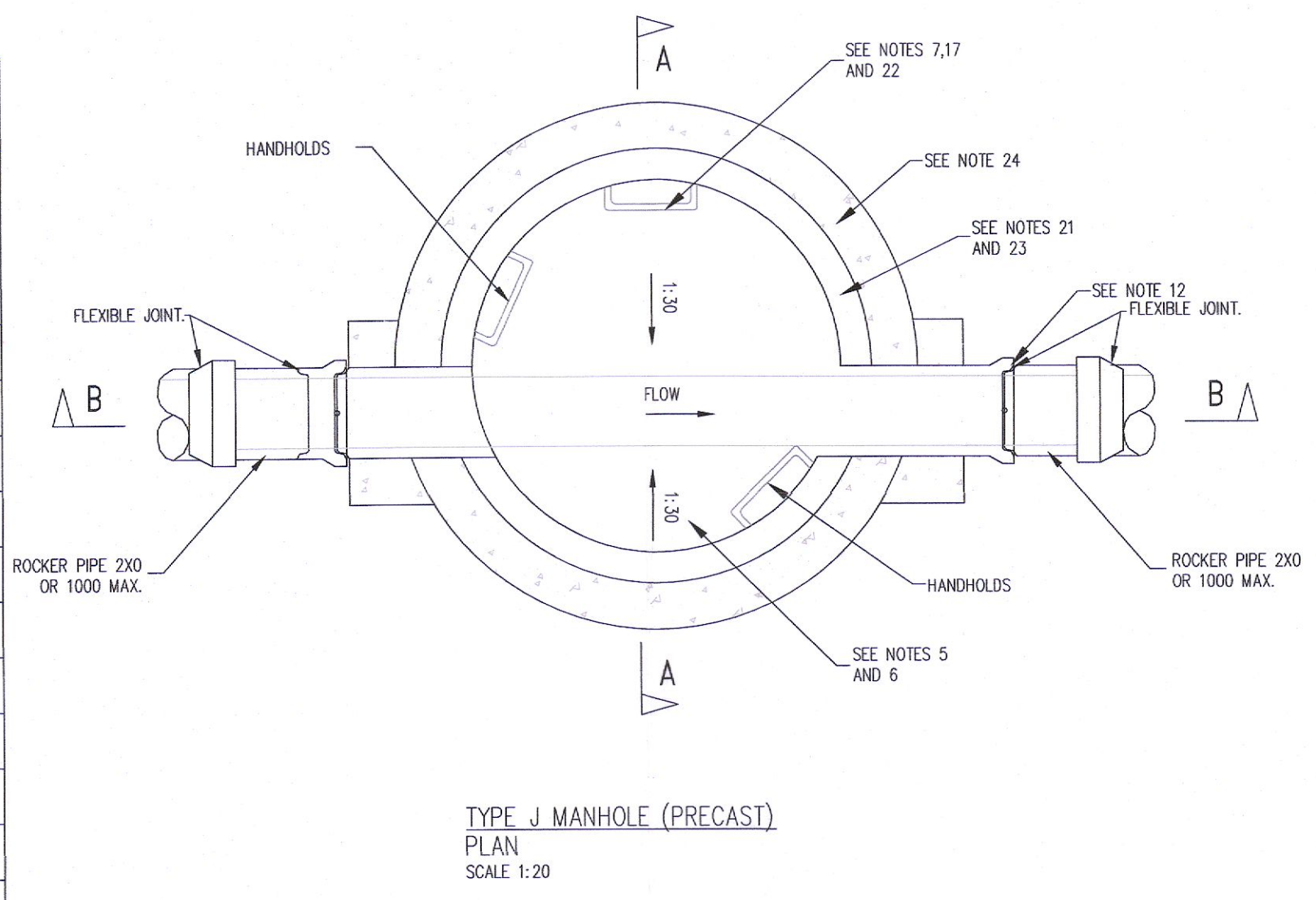


TYPE J MANHOLE (PRECAST)
SECTION A-A
SCALE 1:20

TYPE J MANHOLE (PRECAST)
SECTION B-B
SCALE 1:20

- NOTES :**
- 225mm C30/37 MASS CONCRETE FOUNDATIONS.
 - PERFORMED HALF CIRCLE CHANNEL PIPES. THE PIPELINE MAY, WHERE PRACTICABLE, BE LAID THROUGH THE MANHOLE AND 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.
 - MANHOLE CONSTRUCTION.
 - FOR SURFACE WATER MANHOLE HIGH DENSITY BLOCKS TO C.1510 OF IS.20 PART 1:1987 OR C. C25/30 INSITU CONCRETE.
 - BLOCK WORK SHALL BE BEDDED AND JOINTED WITH MORTAR TO IS406. BEDS AND VERTICAL JOINTS SHALL BE COMPLETELY FILLED WITH MORTAR AS THE BLOCKS ARE LAID.
 - JOINTS SHALL BE FLUSH POINTED AS THE WORK PROCEEDS.
 - BRICK TO BE BEDDED TO BLOCK WORK USING ENGLISH GARDEN WALL BOND.
 - RELIEVING ARCH FORMED BY 215x105x65 SOLID ENGINEERING BRICK CLASS A OR B AS PER DRAWING. 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 AND PIPE CHANNEL PIPE SURROUND C16/20 CONCRETE.
 - BENCHING FINISHED IN 2:1 SAND-CEMENT MORTAR WITH A SMOOTH TROWEL FINISH, AT 1:13 SLOPE TOWARDS CHANNEL.
 - STANDARD RINGS AT 300 CENTRES VERTICALLY AND GALVANISED TO THE LATEST VERSION OF B.S.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 CLASS C25/30, WITH 40mm COVER TO STEEL.
 - 1 TO 2 COURSES OF SOLID ENGINEERING BRICKS CL.B TO I.S.97:1983 SET IN 1:3 (CEMENT AND MORTAR).
 - CLASS D400 OR E600 MANHOLE COVER AND FRAME TO IS/EN 124. 150mm DEEP FRAME FOR ROADS AND 100mm DEEP FOR FOOTPATHS AND GREEN AREAS. NON-ROCK DESIGN, CLOSED KEYWAYS, MANUFACTURED FROM SPHEROIDAL GRAPHITE CAST IRON (DUCTILE CAST IRON), 600x600 (600mm) CLEAR OPENING, COVER AND FRAME COATED IN BUTENOL OR OTHER APPROVED MATERIAL. COVER TO HAVE A MINIMUM MASS OF 140KG/m². FRAME BEARING AREA SHALL BE 80,000mm² MIN. FRAMES SHALL BE DESIGNED TO PREVENT COVERS FALLING INTO MANHOLE. FRAMES SHALL BE BEDDED ON APPROVED MORTAR TO MANUFACTURERS INSTRUCTIONS.
 - SHORT LENGTH PIPE AND PIPE JOINT EXTERNAL TO MANHOLE SHALL NOT EXCEED 600mm FROM THE INNER FACE OF MANHOLE WALL.
 - THE HOLES OF 230mm MINIMUM DEPTH AND GALVANISED STEEL SAFETY RAILINGS TO BE PROVIDED IN BENCHING OF SENSERS GREATER THAN 525mm DIAMETER AND DEPTH TO INVERT >3m FOR ACCESS TO INVERT.
 - A SAFETY CHAIN IS TO BE PROVIDED ON PIPES THAT EXCEED 450mm IN DIAMETER. MILD STEEL SAFETY CHAIN SHALL BE 10mm NOMINAL SIZE GRADE M(H) NON-CALIBRATED CHAIN, TYPE 1, COMPLYING WITH B.S.4942 PART 2 OR EQUIVALENT.
 - WHEN DEPTH OF MANHOLES TO INVERT IS GREATER THAN 3.0m LADDERS SHALL BE USED INSTEAD OF RUNGS TO B.S.4211 OR EQUIVALENT EXCEPT THAT STRINGERS SHOULD BE NOT LESS THAN 65x12mm IN SECTION AND RINGS 25mm IN DIAMETER. FIXED LADDERS SHOULD MEET THE DIMENSIONAL REQUIREMENTS OF B.S.4211 OR EQUIVALENT.
 - LADDER STRINGERS SHOULD BE ADEQUATELY SUPPORTED FROM THE MANHOLE WALL AT INTERVALS OF NOT MORE THAN 2.0m. STRINGERS SHOULD BE BOLTED TO CLEATS TO FACILITATE RENEWAL.
 - ALL LADDERS, RUNGS, HANDRAILS, SAFETY CHAINS ETC. SHALL BE HOT DIP GALVANISED TO B.S.729 OR EQUIVALENT.
 - PIPE SHOULD BE CUT FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE WALL SO THAT THE CHANNEL EXTENDS THE FULL LENGTH OF THE MANHOLE (EXCEPT FOR PRECAST MANHOLES).
 - POSITION OF 910 SQUARE OPE IN INTERMEDIATE ROOF SLAB.
 - ALL MANHOLES SHALL BE WATER TIGHT TO THE SATISFACTION OF THE ENGINEER.
 - FORMWORK TO REINFORCED CONCRETE AND MASS CONCRETE SHALL COMPLY WITH CLASS 2, SECTION 6.2.7, B.S.8110:PART 1:1997.
 - FINISH TO THE TOP OF SLABS SHALL COMPLY WITH TYPE A, SECTION 6.2.7, B.S.8110: PART 1:1997.
 - PLAN DIMENSIONS OF MANHOLE ARE BASED ON BLOCK WORK HAVING A COORDINATING SIZE OF 450x225x100.
 - MANHOLES ARE DESIGNED TO B.S.8005 AND WALL THICKNESS TO I.S.325 BLOCK WORK DESIGN CODE TAKING GRANULAR FILL PRESSURE AND H.B. SURCHARGE.
 - REINFORCEMENT TO SLABS TO ENGINEERS DETAILS
 - FOR MANHOLES >3m DEPTH TO INVERT USE 30N/20mm INSITU CONCRETE. REINFORCING MESH REF. A3536 @ 180G/m² TO BE FIXED AT MID POINT OF WALL. ADDITIONAL REINFORCEMENT TO BE SUPPLIED OVER PIPE CROWN.
 - FOR PRECAST MANHOLES, CHAMBER WALLS AND COVER SLAB TO BE CONSTRUCTED TO IS EN 1917 AND IS 420 2004.
 - MANHOLE OPENINGS TO BE SITUATED FURTHEST FROM THE NEAREST CARRIAGEWAY. MANHOLE STEPS/ACCESS TO BE POSITIONED TO ALLOW WEAVING OF ONCOMING TRAFFIC.
 - FOR BEDDING AND SEALING OF CHAMBER RINGS, THE TOP RING (TO PRECAST COVER SLAB AND BOTTOM RING TO BE BEDDED WITH CEMENT MORTAR. FOR INTERMEDIATE RINGS, JOINTS TO BE SEALED WITH APPROVED PRE-FORMED JOINTING STRIP.
 - PRECAST MANHOLES TO BE SURROUNDED WITH A MINIMUM OF 150mm THICK CLASS C20/40 CONCRETE.
 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION.
 - DO NOT SCALE FROM THIS DRAWING USE STATED DIMENSIONS ONLY. IF IN DOUBT CONSULT THE ENGINEER.
 - LEVELS REFER TO O.S. DATUM MALIN HEAD.

MINIMUM SURFACE WATER MANHOLE DIAMETERS "D"	
MANHOLE PIPE DIAMETER	CHAMBER INTERNAL DIAMETER
225mm ϕ	1200mm ϕ
300mm ϕ	1200mm ϕ
375mm ϕ	1200mm ϕ
450mm ϕ	1200mm ϕ
525mm ϕ	1200mm ϕ
600mm ϕ	1200mm ϕ
675mm ϕ	1350mm ϕ
750mm ϕ	1350mm ϕ
900mm ϕ	1500mm ϕ
1050mm ϕ	2100mm ϕ
1200mm ϕ	2100mm ϕ



TYPE J MANHOLE (PRECAST)
PLAN
SCALE 1:20

SURFACE WATER MANHOLES TO SOUTH DUBLIN COUNTY COUNCIL SPECIFICATIONS
SCALE 1:20

COMPLIANCE
SD21A/0327

- NOTES**
- For setting out refer to Architect's drawings.
 - This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and Specifications.
 - DO NOT SCALE THIS DRAWING. Use figured dimensions only.
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Rev. No.	Date	REVISION NOTE	Dr. By	Chkd. By
	18.08.2022	DRAFT COMPLIANCE ISSUE	SC	NB
C1	18.08.2022	ISSUED FOR COMPLIANCE	SC	NB
C2	08.09.2022	ISSUED FOR COMPLIANCE	SC	NB

Client	GREENWALK DEVELOPMENTS LTD
Project	PROPOSED RESIDENTIAL DEVELOPMENT AT GORDON PARK
Title	Drainage Details for Compliance
Dwg. No.	G104-CSC-ZZ-XX-DR-C-0026
Date	AUG 2022
Dim by	SC
Chkd by	FDB
Apprd by	NB
Scale	AS SHOWN @ A1
Revision	C2

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I.S. EN ISO 50001:2011
OHSAS 18001:2007