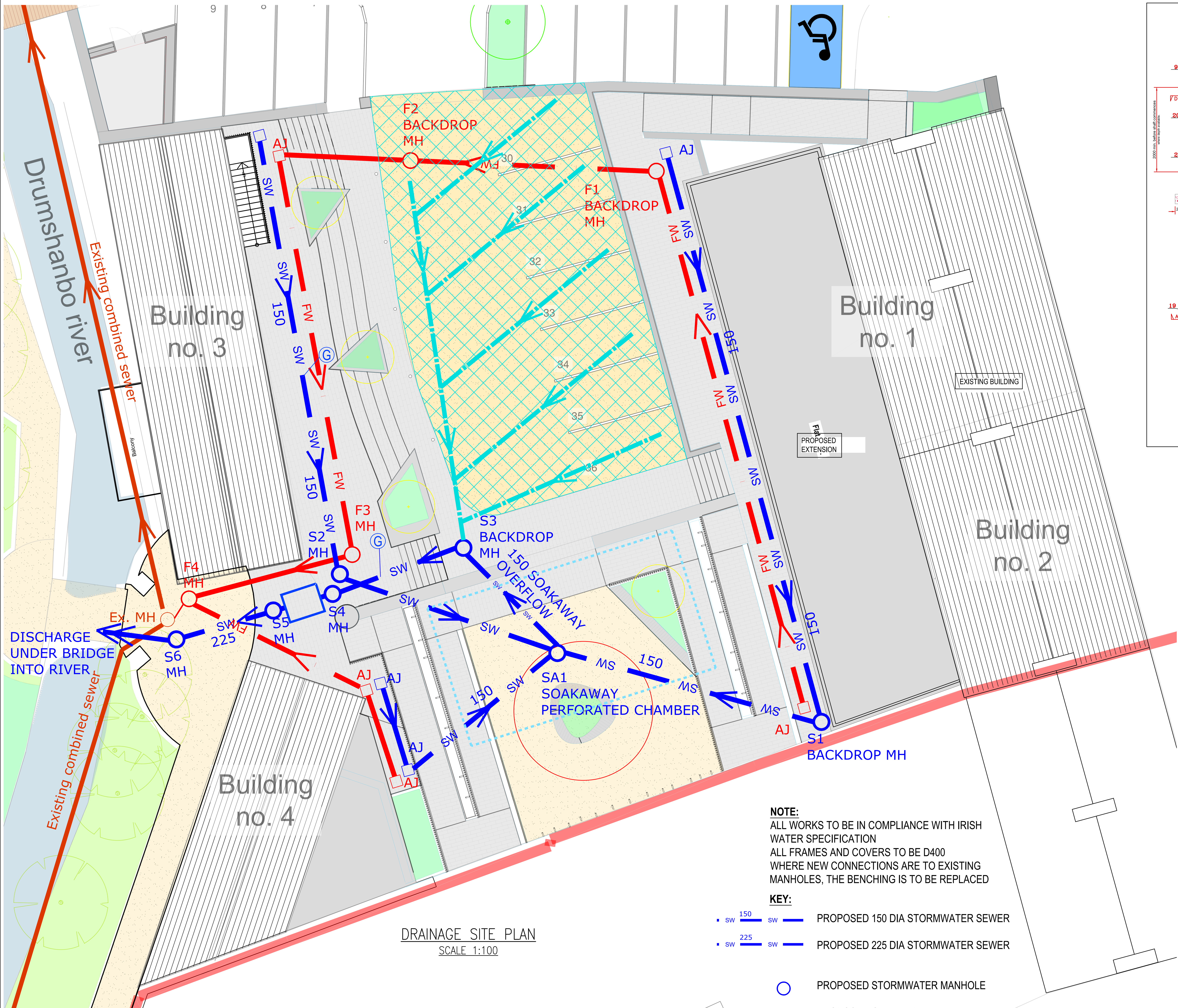


DRAINAGE SITE PLAN
SCALE 1:100

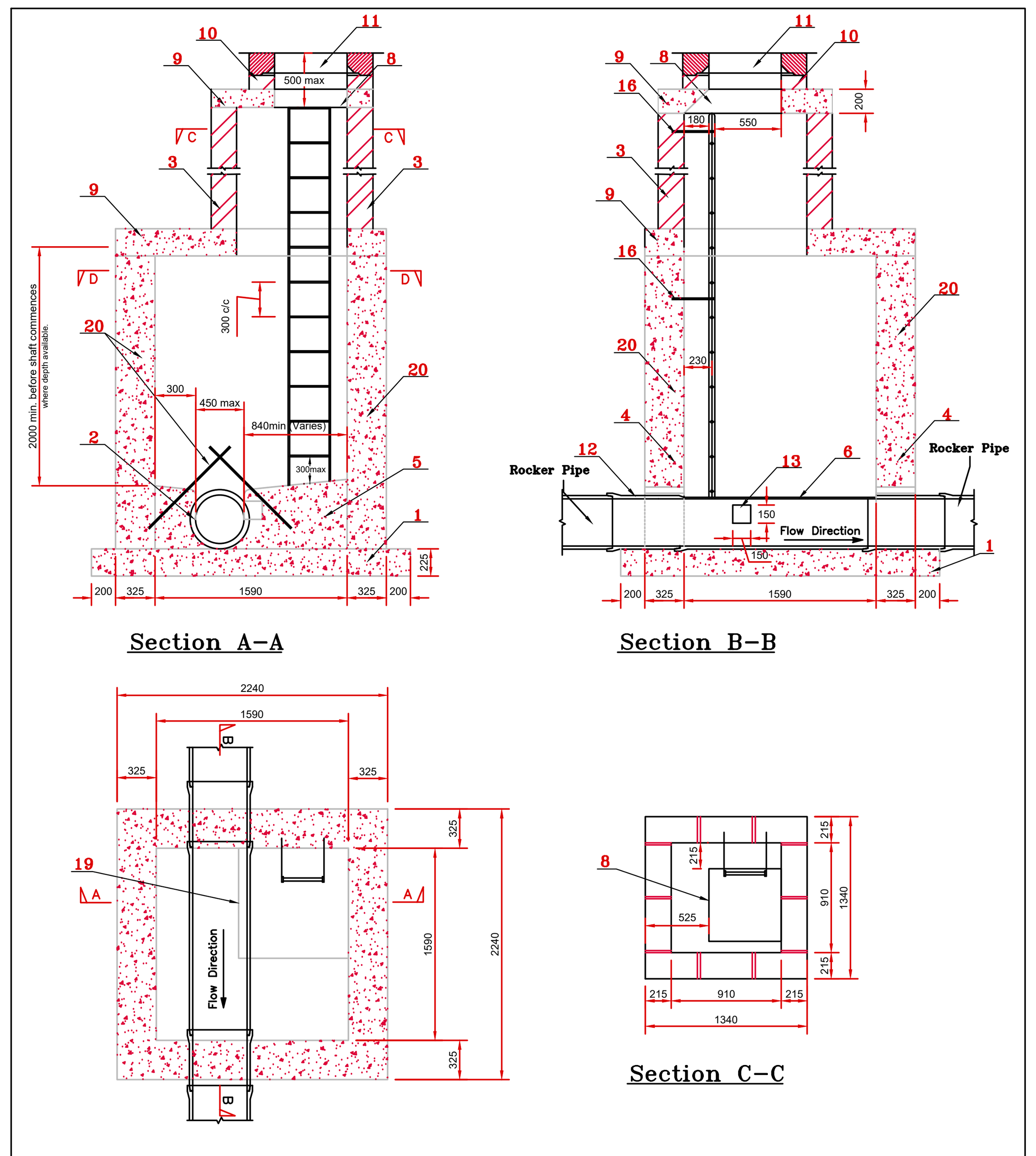
NOTE:
ALL WORKS TO BE IN COMPLIANCE WITH IRISH WATER SPECIFICATION
ALL FRAMES AND COVERS TO BE D400
WHERE NEW CONNECTIONS ARE TO EXISTING MANHOLES, THE BENCHING IS TO BE REPLACED

KEY:

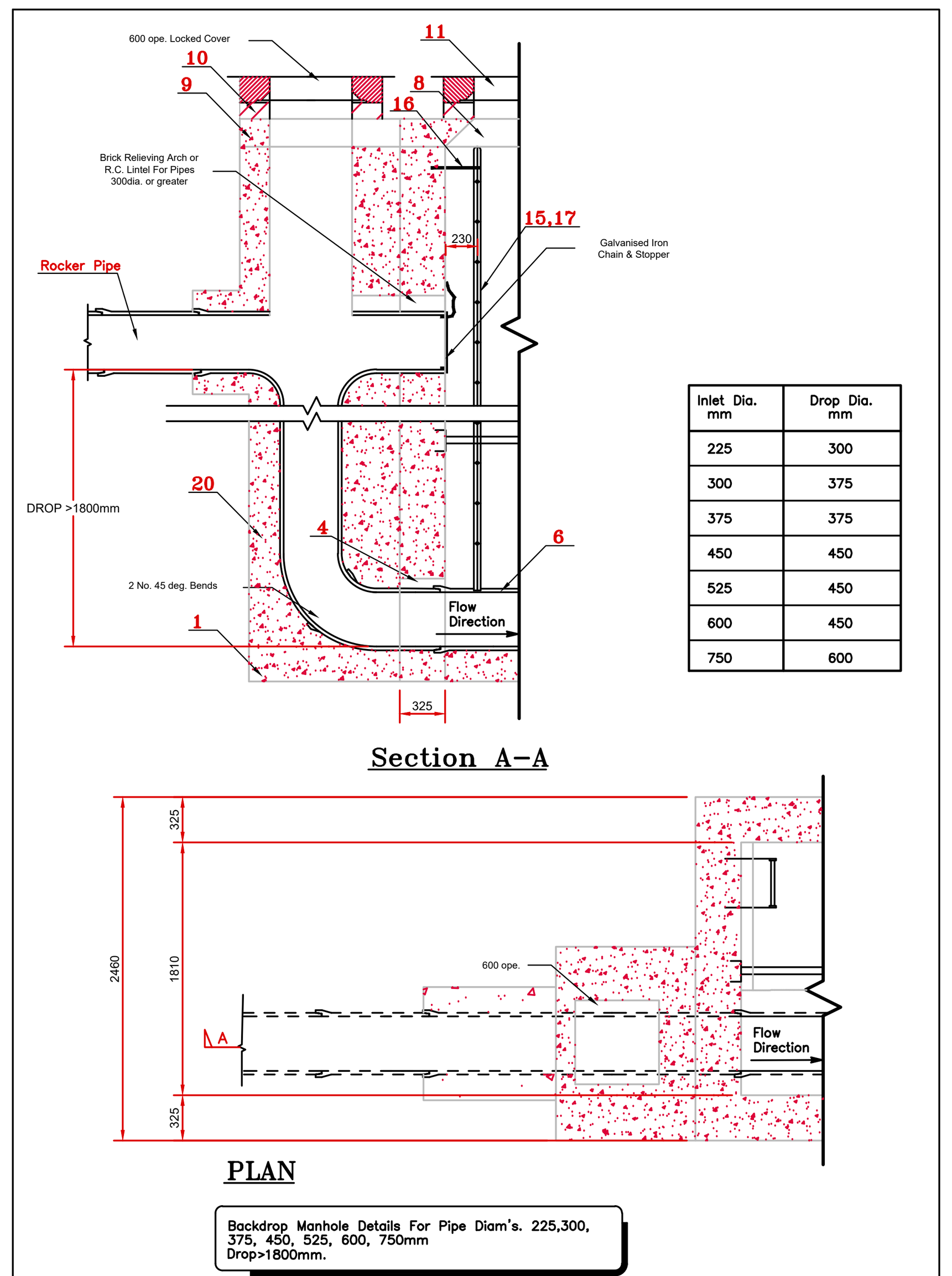
- PROPOSED 150 DIA STORMWATER SEWER
- PROPOSED 225 DIA STORMWATER SEWER
- PROPOSED STORMWATER MANHOLE
- PROPOSED GULLY WITH D400 PEDESTRIAN FRIENDLY GRATING
- PROPOSED CLASS 1 INTERCEPTOR
- PROPOSED 150 DIA FOUL SEWER
- PROPOSED FOUL MANHOLE
- PROPOSED AREA OF SOAKAWAY
- PROPOSED 150 DIA PERFORTED PIPE

DENOTES: CARPARKING AREA TO BE CONSTRUCTED WITH PERMEABLE MACADAM WITH PERFORATED PIPES UNDER AS SHOWN LAID OVER IMPERMEABLE LINER

NOTE: ALL PAVING SHOWN TO BE PERMEABLE PAVING



TYPICAL MANHOLE
SCALE N.T.S



TYPICAL BACKDROP MANHOLE
SCALE N.T.S

1) 225mm Thick CL 20/20 Mass Concrete Foundations
2) Preformed 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 futher than 600mm from the inner face of the manhole wall.
3) – For Surface Water Manholes high density blocks to Cl.s10 of I.S.20 Part 1: 1987 or Cl. 30/20 insitu concrete
   – Blockwork shall be bedded and jointed using mortar designation three to I.S.406. Beds and 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 insitu concrete for 1 metre above Benching Level.
   – Brick to be bonded to Blockwork using English Garden Wall Bond.
4) Reliving arch formed by 215X103X65 brick as per drawing. Relieving arches used in brick or blockwork manholes to extend over full thickness of wall. Double arches to be formed for pipe diameters greater than 600mm.
5) Benching and pipe channel pipe surround – Cl. 20/20 concrete
6) Benching finished in 2:1 sand–cement mortar with a smooth trowel finish, at 1 in 30 slope towards channel
7) Standard rungs at 300c/c vertically and galvanised to BS 729
8) 600mm square ope. in roof slab
9) 150thk. Precast R.C. Roof slab in Cl.30/20 Concrete. Cover to steel shall be 40mm.
10) 1 to 2 No. Engineering Bricks Class B to I.S.91: 1983 set in 1:3 (cement sand mortar)
11) Class D400 manhole cover and frame to IS/EN 124. 150mm deep frame for roads, 100m deep for footpaths and green areas. Non–rock design, closed keyways, manufactured from spheroidal graphite cast iron (ductile cast iron), 600 x 600 (or (600diam) clear opening, cover & frame coated in bitumen or other approved material, cover to have a minimum mass of 140 kg/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 manufacture constructions.
12) Short length pipe, pipe joint external to manhole shall not exceed 600mm from the inner face of manhole wall.
13) Toe holes of 230mm min. depth and galvanised steel safety railings to be provided and benching and sewers greater than 525mm diameter, and depth to invert >3m for access to invert.
14) Safety chain to be provided in manholes >450mm. Mild steel safety chain shall be 10mm nominal size grade M(H) non calibrated chain, type 1, complying with BS: 4942 Part 2.
15) When depth of manholes to invert is greater than 3.0m ladders shall be used, instead of rungs, to BS. 4211 except that stringers should be not less than 65 x 12mm in section and rungs 25mm in diameter. Fixed ladders should meet the dimensional requirements of BS 4211.
16) 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.
17) All ladders, rungs, handrails, safety chains etc.. shall be hot dip galvanised to B.S.729.
18) Socket of pipe should be cut flush with the inside surface of the manhole wall.
19) Position of 910 square ope in intermediate roof slab.
   – All Manholes shall be watertight to the satisfaction of the Engineer.
   – Formwork to reinforcement Concrete and Mass Concrete. shall comply to Class 2, Section 6.2.7, BS8110: Part 1: 1997
   – Finish to the top of slabs shall comply to Type A, Section 6.2.7, BS8110: Part 1:1997.
   – Plan dimensions of manholes are based on blockwork having a co–ordinating size of 450x225x100.
   – Manholes are designed to B.S.8005 and wall thicknesses to I.S.325 Blockwork design code taking granular fill pressure and H.B. surcharge.
   – Reinforcement to slabs to Engineers details.
20) For manholes >3m depth to invert use 30N/20 in–situ concrete. Reinforcing mesh Ref. A393 @ 6.16kg/m to be fixed at mid point of wall. Additional reinforcement to be supplied over pipe crown.

All brick to be Engineering Brick.

REV.	AMENDMENT	BY	DATE

DRAWN:	ST	TECH. CHECK:	ST
SCALE @ A1:	1:100	ENG. CHECK:	C.O'C
DATE:	01/12/23	APPROVED:	C.O'C
STAGE:	PLANNING		

JOB TITLE: DRUMSHANBO TOWN CENTRE REGENERATION PROJECT, Co LEITRIM

DRAWING TITLE: PROPOSED DRAINAGE DRAWING

CLIENT: LEITRIM COUNTY COUNCIL

DRAWING No: 122-195-001 REV: P1

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