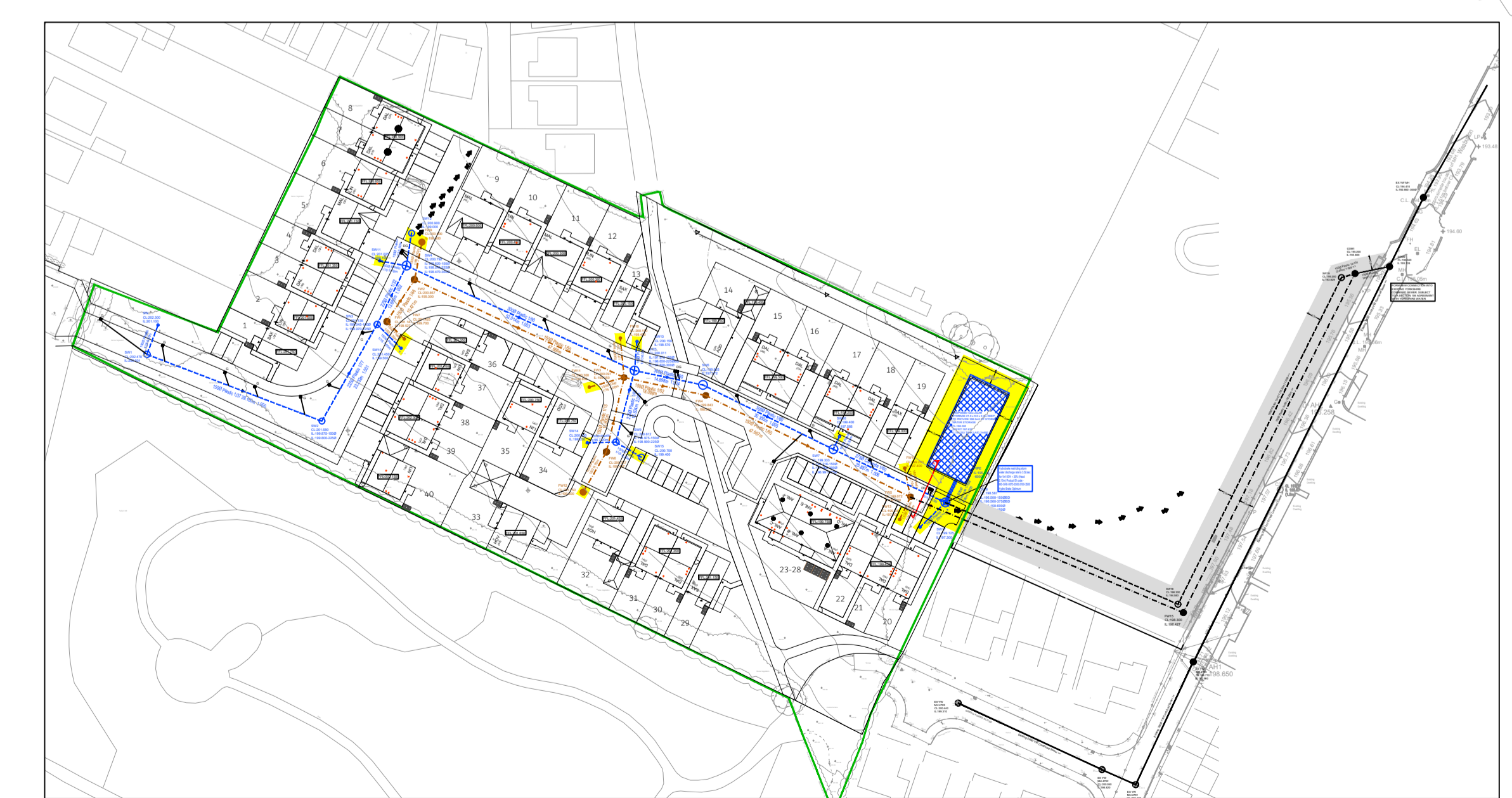


**ICOSA Water Notes**

- All adoptable sewer works and material to be in accordance with Design and Construction Guidance, The Relevant British/European and ICOSA Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- Filled ground must be filled and consolidated under the supervision and the satisfaction of ICOSA Water before any sewer works are carried out.
- ICOSA Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage run-off will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage run-off.
- Cover slabs must carry the BS1 Kitemark or will be rejected by ICOSA Water Inspector. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 600mm x 600mm for the ICOSA Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes.
- Sulphate resistant cement (C20-D2C) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must be laid in Class 'S' Bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in Highways and verges (or less than 900mm in non-vehicular access areas) then a concrete slab should be provided above granular bed and surround.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- ICOSA will accept either brick or concrete Type C manholes in accordance with the details in DCG. A Special Type C manhole may be considered with a single 675 x 675mm cover and frame on a 1200mm diameter concrete chamber. A detail must be provided with a note that the cover should be located above the channel. Step irons required.
- Adoptable plastic sewer pipes to be BS1 Kitemarked (certified to WIS 4-35-01 and BS EN 13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic chamber sections in manholes are not acceptable and ICOSA Water would prefer clayware chamber in manholes. We have found that plastic chambers are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the bedding.
- Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
- Sewers must have 5 metres clearance from trees and hedges or the width of the canopy, at mature height. Please reference to ICOSA Technical Requirements WW-PO-002 for distances between sewers and trees.
- There must be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm. If crossover is near the rocker then the clearance needed may be increased.
- The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40kN/m, 150mm dia. 40kN/m, 225mm dia. 45kN/m and 300mm dia. 75kN/m. The minimum crushing strength for concrete pipes should be: Class 120 to EN 14188:2002. Plastic pipes should conform to WIS 4-35-01 and BS EN 13476.

OVERLAND FLOOD ROUTE

Proposed Section 104 Plan (1:250)



Overall Site Plan (1:1000)

PROPOSED CELLULAR STORAGE: 21 x 9 x 4.5m DEEP TO PROVIDE 388 m<sup>3</sup> OF STORM WATER STORAGE. SOFPI: 197.633. 198.233 TANK LAID 1500. HYDRA-SLAK Optimum

Hydraulic restricting storm water discharge rate to 3.5L/sec for 10/100y - 3% flood. 2.0m Product ID code: MD-SHE-0075-3500-2100-3500 Hydro-Slaka Optimum

REV	DESCRIPTION	DATE	BY
P10	Highways drainage amended	02.09.24	TM
P9	Private drainage updated to parts 21 - 28	22.04.24	TM
P8	Grids amended adjacent to part 34 above facilities	25.03.24	TM
P7	Revised to suit ICOSA comments	18.03.24	TM
P6	Revised to suit ICOSA comments	28.02.24	TM
P5	T10 reference number removed	20.02.24	TM
P4	Reference amended to cross water	07.01.24	TM
P3	Updated to IC unit scheme	29.11.23	TM
P2	Site plan updated and private drainage amended to suit	16.11.23	TM
P1	Preliminary - Initial Issue	12.03.23	TM

**AMA**  
ANDREW MOSELEY ASSOCIATES

Project:  
Residential Development off Wentworth Drive, Emley

Client:  
Newett Homes

Drawing:  
Section 104 Layout

Drawn By: TM Date: 12/09/2023

Checked: GS Scale: 1:250 A1

Drawing No: AMA/23336/D/500 Rev: P10