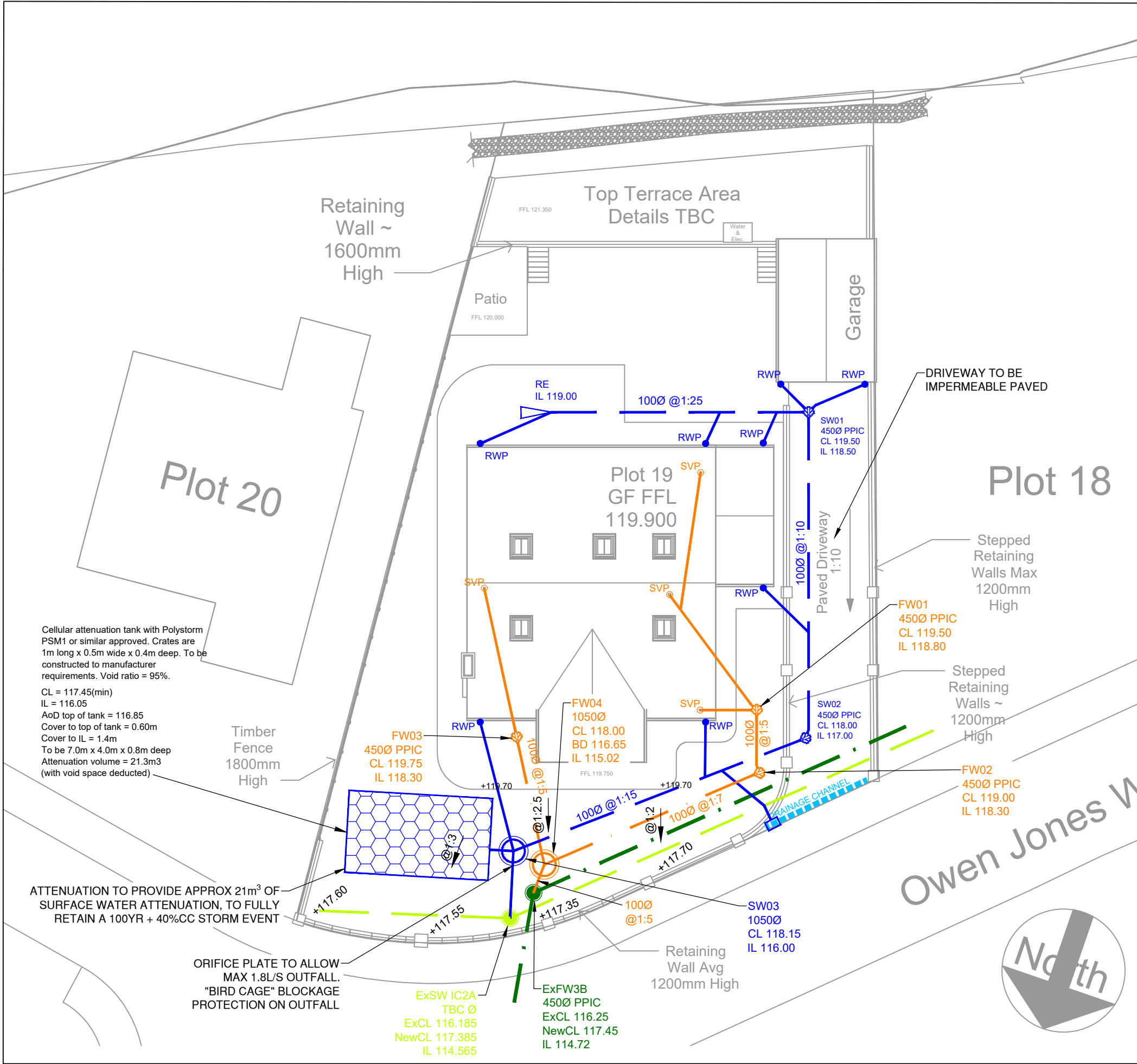




Key.

- Existing Private Foul sewers
- Existing Private Surface water sewers
- Proposed Foul drain (Invert level shown)
- Proposed Surface water drain (Invert level shown)
- Foul (non man accessible) inspection chamber
- Storm Manhole
- Storm (non man accessible) inspection chamber
- Sealed rodding eye.
- Channel Drainage System
ACO CivicDrian or similar approved.
ALL TO BE FITTED WITH SUMP OUTLET UNIT
Heavy duty channels with C250 covers or similar
approved for car park loadings.
- RWP location.
All locations shown are based on indicated points on
latest Architects layout "A119 Rev B"
- Internal FW location. With roddable access point.
All locations shown are based on indicated points on
latest Architects layout "A119 Rev B"
- RLL Proposed level

General Notes

- This drawing is to be read in conjunction with all other relevant Engineering and Architects details.
- All dimensions are in millimeters unless otherwise stated. All levels are in meters unless otherwise stated.
- The Contractor shall be responsible for checking all levels for line and level with existing foul and surface water systems before commencing any works.
- The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found prior to the commencement or continuation of any works.
- All work is to be carried out in accordance with current British Standards, Building Regulations and NRSB Standards.
- All drainage work is to be strictly in accordance with the requirements of the Building Regulations 2000, Approved Document Part H, "Drainage and waste disposal".
- It is the responsibility of the Contractor to execute the works at all times in strict accordance with the requirements of the Health and Safety at Work Act 1974, and the C.M. Regulations 2015. The Contractor will be deemed to have allowed for full compliance, including full liaison with the Principal Designer within his rates.
- All existing land drains encountered on site during construction are to be re-connected.
- Should any departure from the proposed slab or external levels be considered, agreement shall be sought from the Engineer immediately and prior to the commencement or continuation of any works. Proposals should take full account of all restrictions to the slab level.
- Temporary protection to be provided to drainage work during construction as necessary.

Specification Notes

- The following types of pipe may be used unless noted or agreed otherwise:
 - Pipes up to 450mm diameter to be Structured Walled to BS EN 13476, Polypropylene to BS EN 1862 or PVC-U to BS EN 1401.
 - Pipes over 450mm diameter to be Concrete to BS 5911.
- Both Clay and Concrete pipes shall be strength class 120 (100/150mm min crushing strength 28kN/m). Thermoplastic pipes shall have a minimum ring stiffness of 8kN.
- Pipes which run adjacent to buildings shall be installed in strict accordance with Part H, Clauses 2.23 to 2.25.
- All pipes, chambers and fittings shall be installed, bedded and backfilled in accordance with the manufacturers instructions subject to the following minimum requirements:

Pipe Location	Cover to crown	Clay/Concrete Pipe	Building	Plastic Pipe	Backfill
Roads (HGV)	+1.2m	Class B	Class B (Bitard)	Type 1 Granular	
	+1.2m	Class A (Concrete)	Class A (Concrete)		
Driveway	+0.9m	Class B (Bitard)	Class B (Bitard)	Type 1 Granular	
	+0.9m	Class A (Concrete)	Class A (Concrete)		
Foot and soft landscaping	+0.6m	Class B (Bitard)	Class B (Bitard)	Subsidiary as dug	
	+0.6m	Class A (Concrete)	Class A (Concrete)		
- The first flexible joint in pipes adjoining a manhole shall be a maximum length of 600mm from the inside face of the manhole, connecting to a rocker pipe. The length of the rocker pipe shall be as follows:

Pipe diameter	Length of Rocker pipe
150-600mm	600mm
675-750mm	1000mm
over 750mm	1250mm
- All manholes and inspection chambers situated in areas subject to vehicular loading to have class B400 covers and frames to BS EN124 and those not subject to vehicular loading to have class B125 covers and frames.
- Drainage frames must be tied to manhole risers by use of manufacturers ties (eg. Polytype ref FRK300 long kit and FRK301 black ties). The ground works contractor will be held fully responsible for any accidents due to incorrect fitting or failure to use the correct manufacturers fixing equipment.
- All drains in the vicinity of existing or proposed trees to be constructed in accordance with the requirements of NRSB Practice Note 3.
- New substation design will require approval from power supplier along with revised vehicle track modelling to ensure full access requirements are still met.
- Electrical service wayleave noted to site frontage needs to be considered with regards to the construction of the retaining wall.
- All drainage MH cover and frames to be orientated so that they are square and perpendicular to the block paving patterns. MH cover location also to avoid building door opening locations where possible.
- All PPICs in vehicle loaded areas to have full depth concrete surround, min 150mm thick.

RLRE **RODGERS LEASK**
Consulting Civil & Structural Engineers

Client
Gareth Owen Concept Designs

Project
Plot 19, Varteg Fawr, Bryn

Drawing Title
DRAINAGE STRATEGY

Status
PRELIMINARY

Scale
A3@ 1:200

Drawing No.
19238-RLL-19-XX-DR-C-2000

Scale Bar:
1:200 2 4 6 8 10 12 14

Copyright © Rodgers Leask Limited