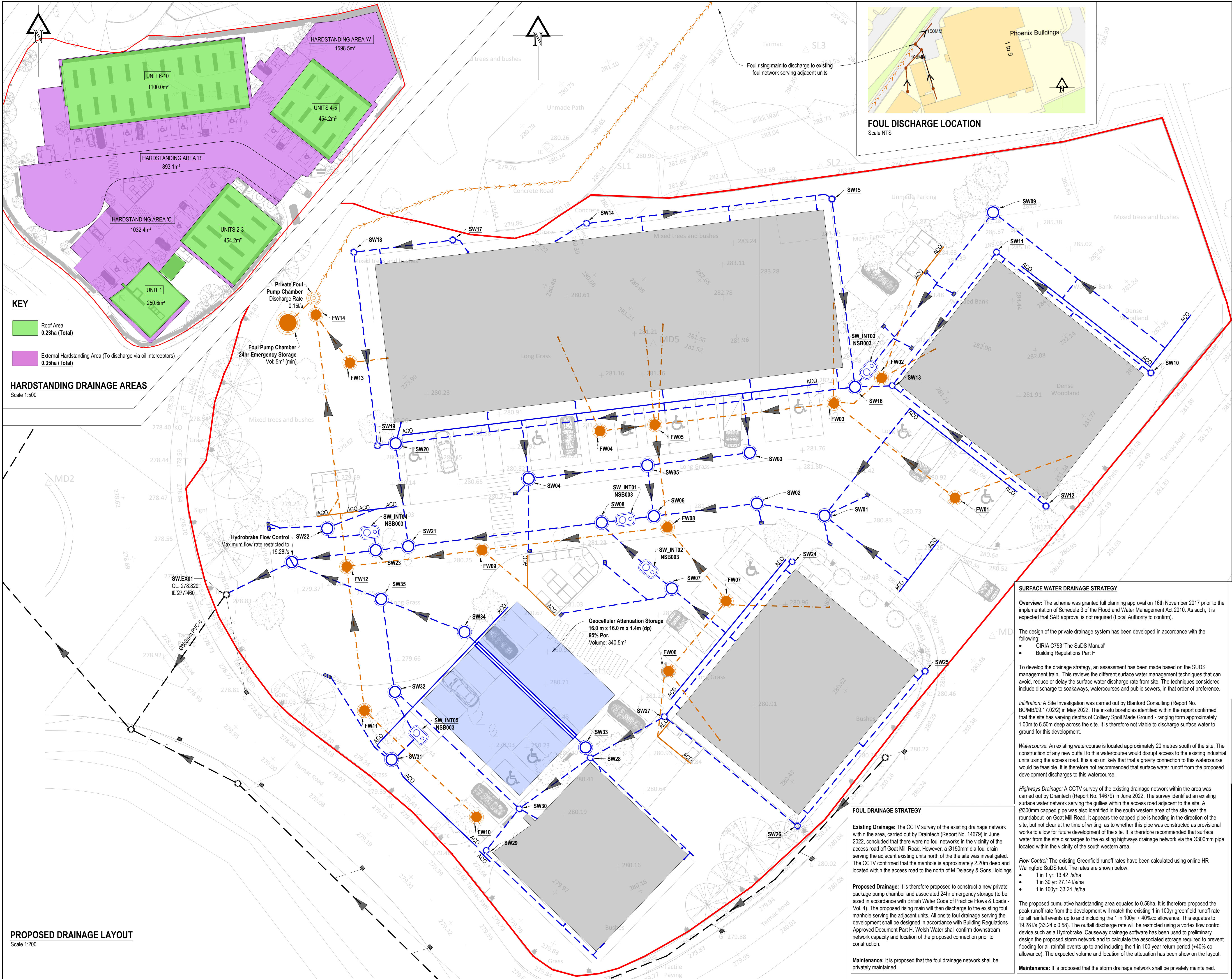




KEY

- Site Boundary
- Existing Highways Drain
- Proposed Private Storm Drain
- Proposed Private Foul Drain
- Proposed Private Foul Pump Chamber
- Proposed Foul Rising Main
- Proposed Class 1 Oil Interceptor

NOTES

- This drawing has been produced for planning information only and should not be used for construction purposes.
- This drawing is to be read in conjunction with other Architect, Engineering and Survey drawings.

KEY

- Roof Area
0.23ha (Total)
- External Hardstanding Area (To discharge via oil interceptors)
0.35ha (Total)

HARDSTANDING DRAINAGE AREAS

Scale 1:500

SURFACE WATER DRAINAGE STRATEGY

Overview: The scheme was granted full planning approval on 16th November 2017 prior to the implementation of Schedule 3 of the Flood and Water Management Act 2010. As such, it is expected that SAB approval is not required (Local Authority to confirm).

The design of the private drainage system has been developed in accordance with the following:

- CIRIA C753 'The SuDS Manual'
- Building Regulations Part H

To develop the drainage strategy, an assessment has been made based on the SuDS management train. This reviews the different surface water management techniques that can avoid, reduce or delay the surface water discharge rate from site. The techniques considered include discharge to soakaways, watercourses and public sewers, in that order of preference.

Infiltration: A Site Investigation was carried out by Blanford Consulting (Report No. BC/MB/09.17.02/2) in May 2022. The in-situ boreholes identified within the report confirmed that the site has varying depths of Colliery Spoil Made Ground - ranging from approximately 1.00m to 6.50m deep across the site. It is therefore not viable to discharge surface water to ground for this development.

Watercourse: An existing watercourse is located approximately 20 metres south of the site. The construction of any new outfall to this watercourse would disrupt access to the existing industrial units using the access road. It is also unlikely that a gravity connection to this watercourse would be feasible. It is therefore not recommended that surface water runoff from the proposed development discharges to this watercourse.

Highways Drainage: A CCTV survey of the existing drainage network within the area was carried out by Draintech (Report No. 14679) in June 2022. The survey identified an existing surface water network serving the gullies within the access road adjacent to the site. A Ø300mm capped pipe was also identified in the south western area of the site near the roundabout on Goat Mill Road. It appears the capped pipe is heading in the direction of the site, but not clear at the time of writing, as to whether this pipe was constructed as provisional works to allow for future development of the site. It is therefore recommended that surface water from the site discharges to the existing highways drainage network via the Ø300mm pipe located within the vicinity of the south western area.

Flow Control: The existing Greenfield runoff rates have been calculated using online HR Wallingford SuDS tool. The rates are shown below:

- 1 in 1 yr: 13.42 l/s/ha
- 1 in 30 yr: 27.14 l/s/ha
- 1 in 100yr: 33.24 l/s/ha

The proposed cumulative hardstanding area equates to 0.58ha. It is therefore proposed the peak runoff rate from the development will match the existing 1 in 100yr greenfield runoff rate for all rainfall events up to and including the 1 in 100yr + 40%cc allowance. This equates to 19.28 l/s (33.24 x 0.58). The outfall discharge rate will be restricted using a vortex flow control device such as a Hydrobrake. Causeway drainage software has been used to preliminary design the proposed storm network and to calculate the associated storage required to prevent flooding for all rainfall events up to and including the 1 in 100 year return period (+40% cc allowance). The expected volume and location of the attenuation has been show on the layout.

Maintenance: It is proposed that the storm drainage network shall be privately maintained.

FOUL DRAINAGE STRATEGY

Existing Drainage: The CCTV survey of the existing drainage network within the area, carried out by Draintech (Report No. 14679) in June 2022, concluded that there were no foul networks in the vicinity of the access road off Goat Mill Road. However, a Ø150mm dia foul drain serving the adjacent existing units north of the site was investigated. The CCTV confirmed that the manhole is approximately 2.20m deep and located within the access road to the north of M Delacey & Sons Holdings.

Proposed Drainage: It is therefore proposed to construct a new private package pump chamber and associated 24hr emergency storage (to be sized in accordance with British Water Code of Practice Flows & Loads - Vol. 4). The proposed rising main will then discharge to the existing foul manhole serving the adjacent units. All onsite foul drainage serving the development shall be designed in accordance with Building Regulations Approved Document Part H. Welsh Water shall confirm downstream network capacity and location of the proposed connection prior to construction.

Maintenance: It is proposed that the foul drainage network shall be privately maintained.

PROPOSED DRAINAGE LAYOUT

Scale 1:200

Rev.	Date.	Details.	By.	Chk.
Amendments				



Bear Structures
Rugged by design

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United Kingdom 029 20 304 979

Project:
**M DELACEY & SONS, GOAT MILL ROAD,
DOWLAIS, MERTHYR TYDFIL**

Title:
PROPOSED DRAINAGE LAYOUT

Drawing Status:
INFORMATION

Drawn:	Checked:	Scale(s) at A1:	Revision
PC	-	AS SHOWN	-
Date:	Job No:	Drawing No:	Revision
29.06.2022	P0379	0050	-