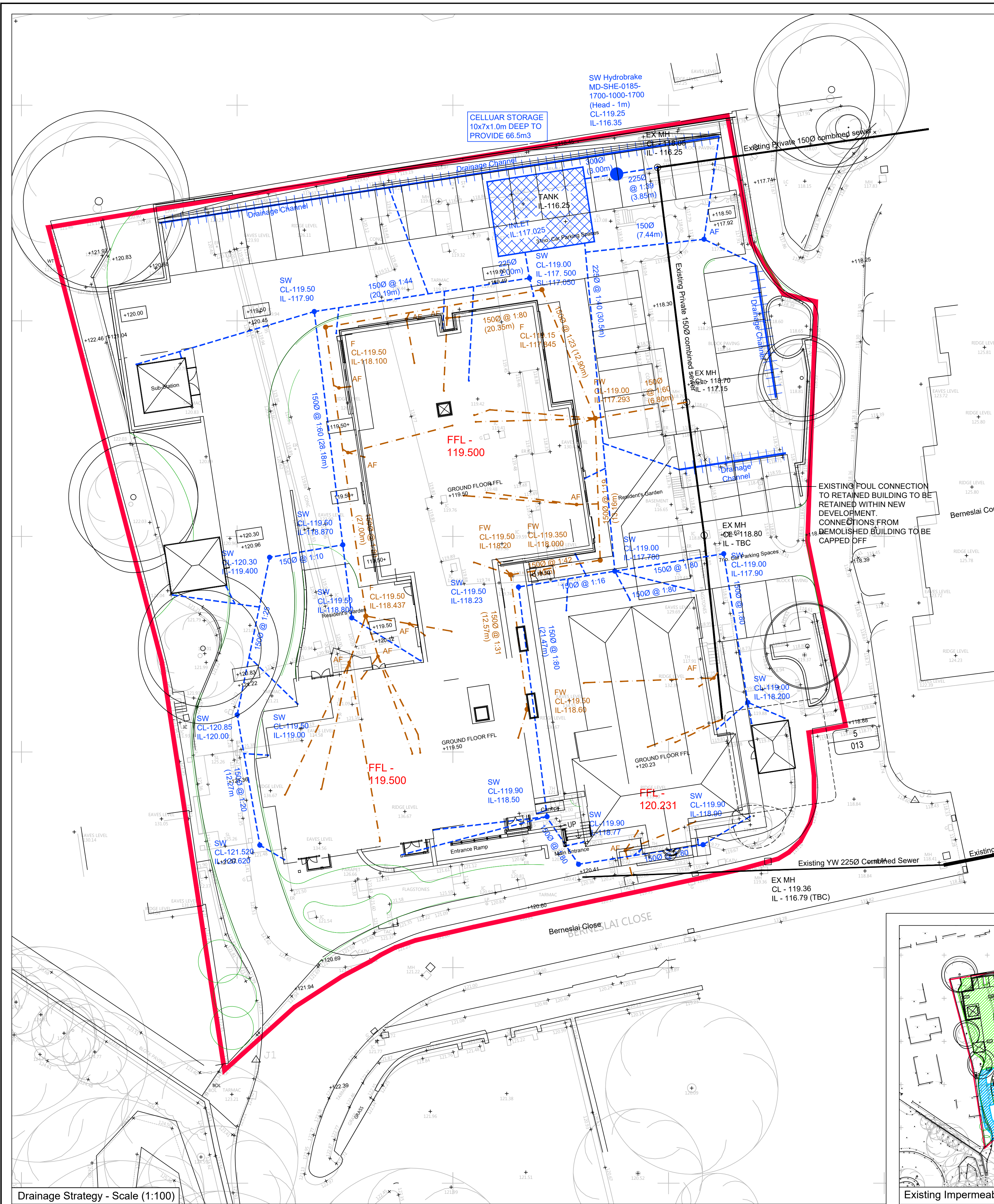




Drainage Strategy - Scale (1:100)

Drainage Strategy

Yorkshire Water records indicate the presence of a 225Ø combined sewer in Berneslai Close.

NPPF guidelines require that surface water arising from a developed site should as far as practicable be managed in a sustainable manner to mimic the surface water flows arising from the site prior to development.

Owing to the lack of watercourses within the site vicinity of the site and the assumptions that soakaways are not an option it is our proposal that the surface and foul water both discharge to the existing private combined manhole within site. A drainage survey has been undertaken which has confirmed the majority of the surface water and all the foul for the existing site drains to this location.

The existing impermeable area outfall into the private sewer to the north is 2255m² and a 1 in 1 year existing flow of 31.3L/s. Assuming a 30% reduction to existing 1 in 1 year flows. Based on this requirement surface water flows will be restricted to 21.9L/s. The existing connection is 150mm diameter therefore in order not to exceed the capacity of the pipe we have further reduced the flow to 17.0L/s

The proposed impermeable area for the development is 2650m².

Based on a flow restriction of 17.0L/s and modelling using micro drainage software the attenuation requirement for a peak return period of 1 in 100 year plus 30% climate change is 10 x 7 x 1m providing 66.5m³ of storage.

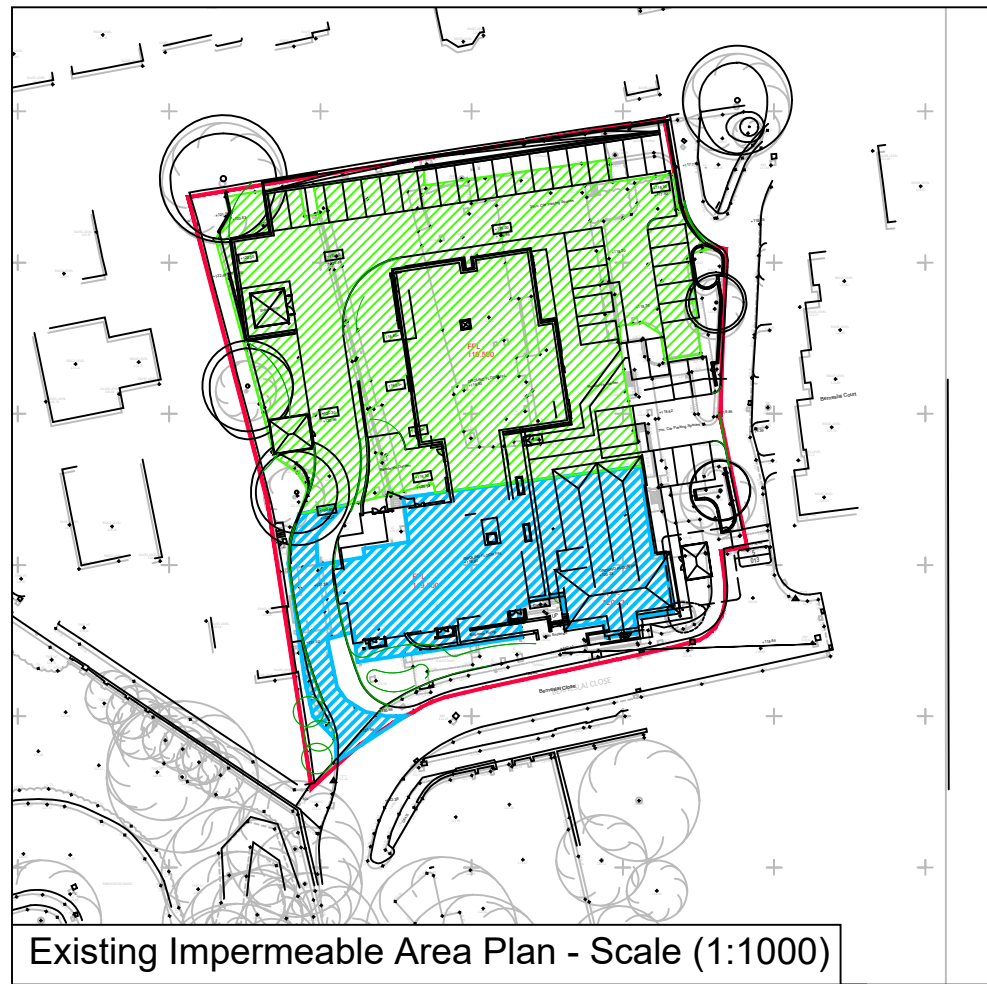
The flows will be attenuated using hydrobrake control device ref MD-SHE-0185-1700-1000-1700 to 17.0L/s.

The foul and surface water from the retained building will remain unchanged.

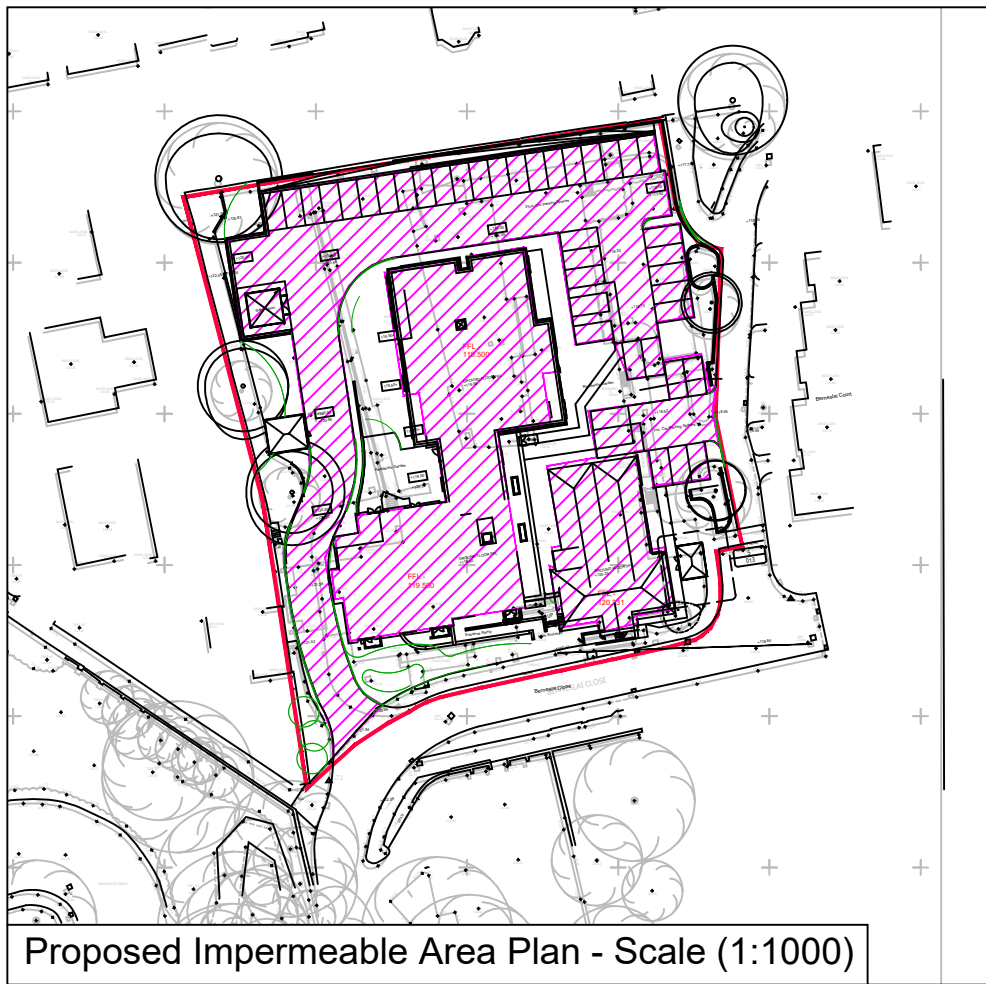
Impermeable Area draining to Berneslai Close - 983m²

Impermeable Area draining to Private Road - 2255m²

Proposed Impermeable Area -2650m²



Existing Impermeable Area Plan - Scale (1:1000)



Proposed Impermeable Area Plan - Scale (1:1000)

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Notes:

1. This drawing is to be read in conjunction with all relevant architect's and engineer's drawings.
2. It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

Key

- Proposed Surface Water Drainage
- Proposed Foul Water Drainage
- Existing Sewer

C	Drainage revised to suit latest site layout	09.02.18	AD
B	Drainage revised to suit YW planning comments	31.01.18	AD
A	Drainage revised in accordance with updated Architects Layout	24.11.17	RTM
No.	Revision	Date	Drwn

Status Preliminary



Client MCCARTHY & STONE

Project Berneslai Close, Barnsley

Drawing title Drainage Strategy

Drawn	AB	Chkd	AD	Date	30.10.17	Scale	1/200
Contract No.	17406	Drg No.	NE-2473-03-DE-001	Revision			C