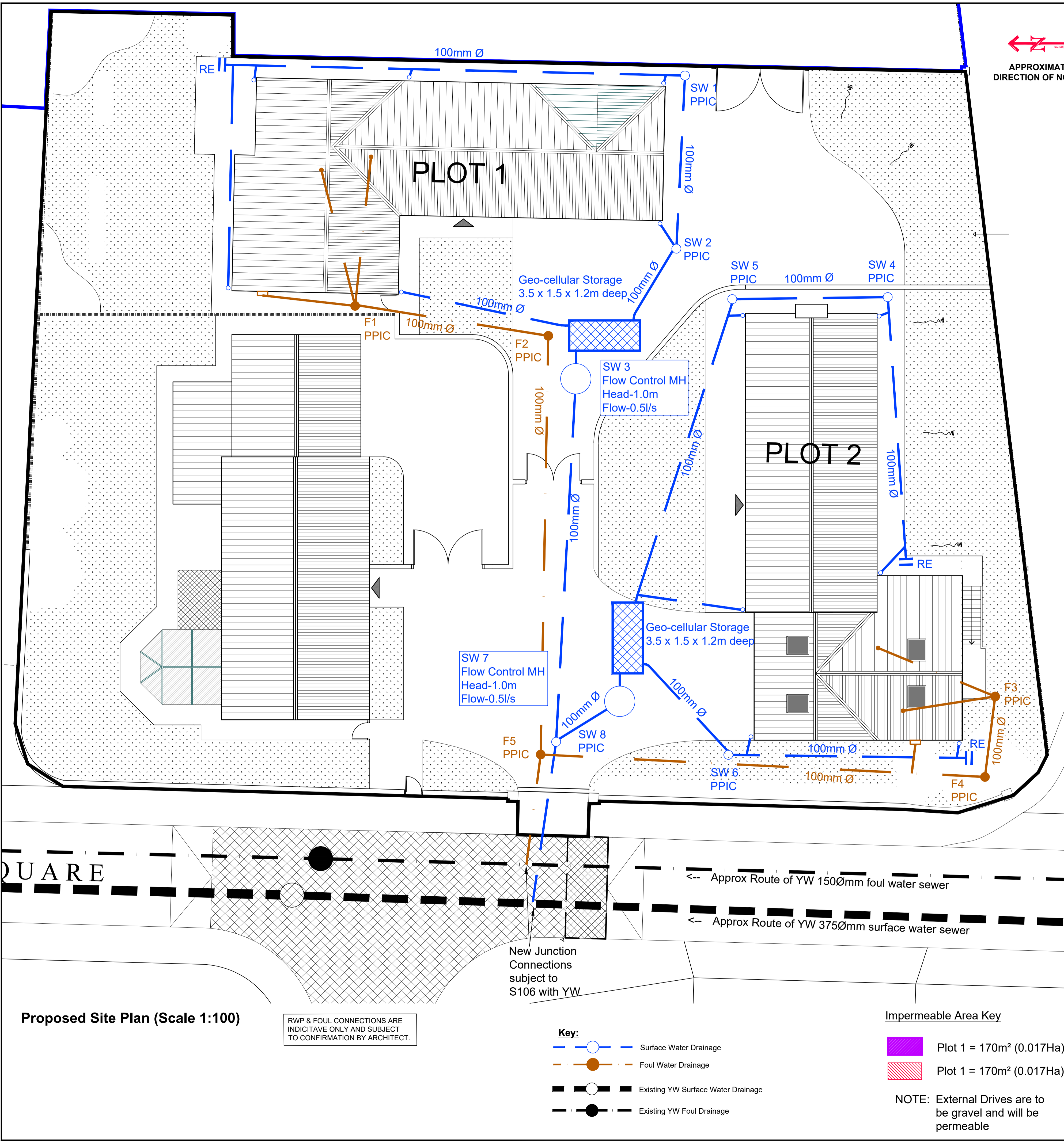


Notes:
1. This drawing is to be read in conjunction with all relevant Architects and Engineers Drawings.
2. It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement.



← Z
APPROXIMATE
DIRECTION OF NORTH

Drainage Strategy

The site is located within flood zone 1 with a low risk of flooding from rivers or the sea and is less than 1 hectare, therefore a site specific flood risk assessment should not be required.

The site is currently Greenfield, Plot 1 has an area of 620m² and Plot 2 has an area of 518m². The planning authority have stipulated a 1.4l/s/ha for surface water flows.

Under SuDs guidance the first point of discharge for surface water is percolation via soakaway. For the purpose of this strategy it is assumed that ground conditions are not suitable for soakaways. Geological maps show the site is in an area of mudstone and the adjacent land is a former land fill site. As infiltration is assumed to not be viable on this site, connection is proposed to the Yorkshire Water sewer in Redmayne Square to the west of the site.

Yorkshire Water sewer records indicate that four sewers are located to the west of site in Redmayne Square and it is assumed the site foul flows will discharge to this location, subject to a S106 agreement with YW.

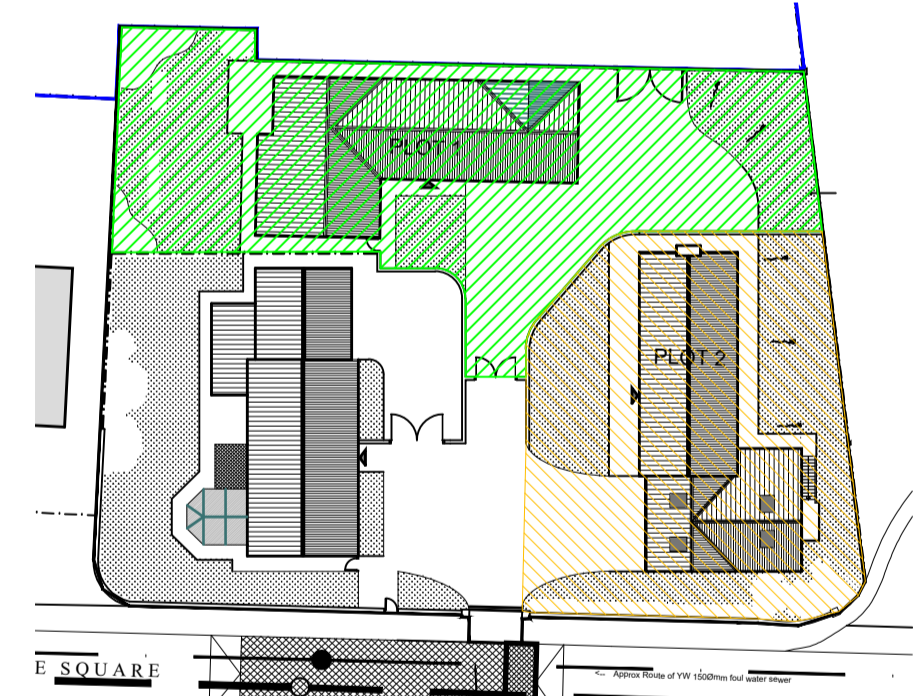
NPPF guidelines require that surface water arising from a developed site should as far as practicable be managed in a sustainable manner to mimic the surface water flows arising from the site prior to development.

The planning authority have stipulated a flow restriction of 1.4l/s/ha, which equates to 0.14l/s flow restriction on this site, 0.14l/s is 7mm which would present a significant risk of blockage and flooding of the SW sewer system. As such we have proposed a flow restriction of 0.5l/s be imposed on the site to achieve a 31mm hydrobrake diameter.

The proposed impermeable area for each plot is 170m². Based on a flow restriction of 0.5l/s and modelling using Micro Drainage software the attenuation requirement for a peak return period of 1 in 100year plus 30% climate change is **6.1 m³ per plot**.

Attenuation to be provided via **3.5 x 1.5 x 1.2m depth geo-cellular tank**

The flows will be attenuated using a 31mm Hydrobrake control device ref MD-SHE-0031-5000-1200-5000



Existing Site Area Key
 Plot 1 Site Area = 620m² (0.062Ha)
 Plot 2 Site Area = 518m² (0.052Ha)

Existing Site Greenfield Run Off (Scale 1:500)



Proposed Impermeable Areas (Scale 1:500)

Proposed Site Plan (Scale 1:100)

RWP & FOUL CONNECTIONS ARE INDICATIVE ONLY AND SUBJECT TO CONFIRMATION BY ARCHITECT.

Key:
 Surface Water Drainage
 Foul Water Drainage
 Existing YW Surface Water Drainage
 Existing YW Foul Drainage

Impermeable Area Key
 Plot 1 = 170m² (0.017Ha)
 Plot 2 = 170m² (0.017Ha)

NOTE: External Drives are to be gravel and will be permeable

P2	Reduction of discharge rate	29.02.24	OG
No.	Revision	Date	Drwn

Status



Windsor House, Cornwall Road
Harrogate, HG1 2PW
T: 01423 622 293
W: www.topping-engineers.com
E: info@topping-engineers.com

Client			
Mr Sean Leaf			
Project			
2 Redmayne Square, Strensall			
Drawing title			
Drainage Strategy			
Drawn	CR	Chkd	AD
Date	Feb 17	Scale	As Shown @ A1
Contract No.	17059	Drig No.	DR-C-50
Revision			P2