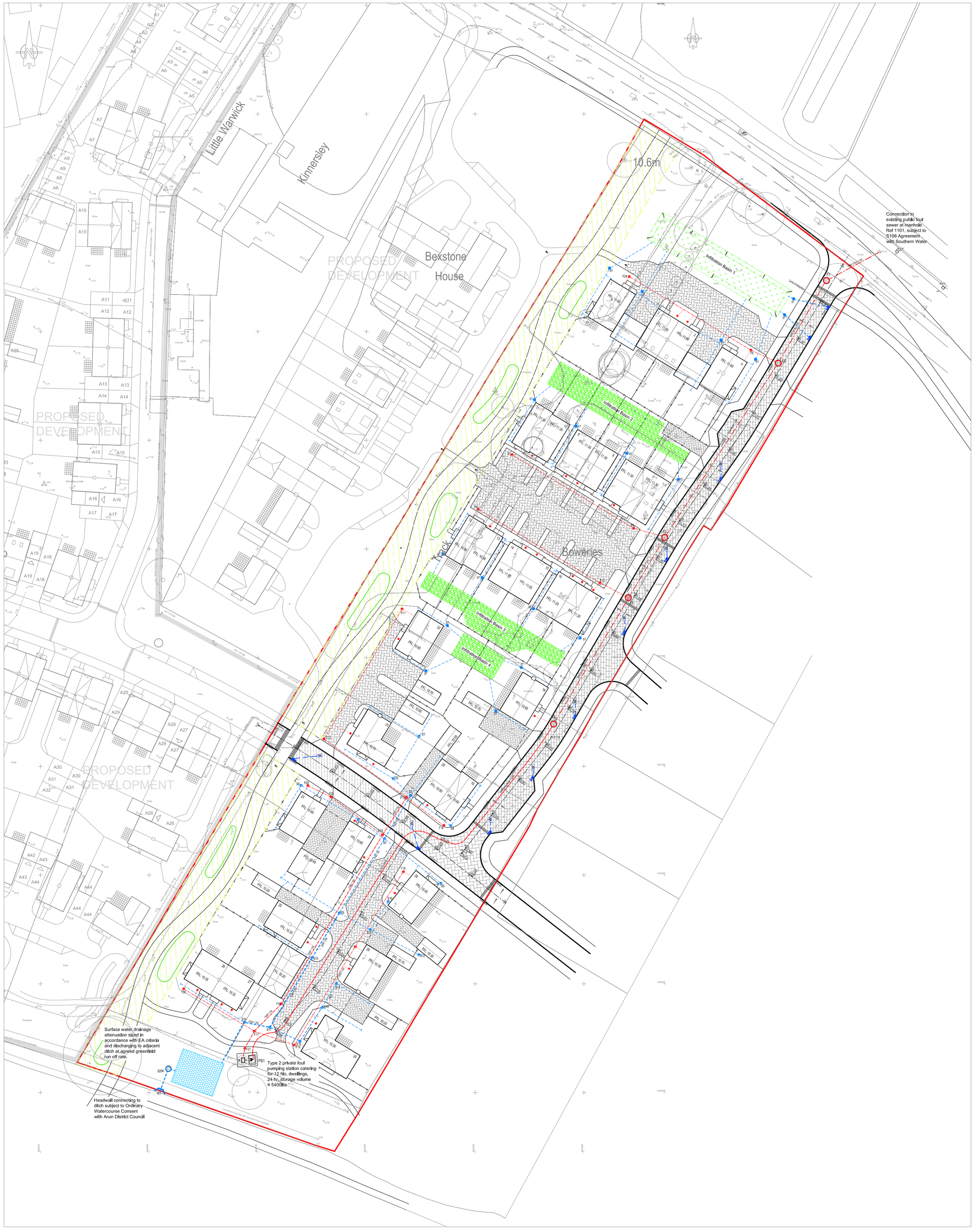

Legend:

- Existing foul water sewer
- Type 2 manhole - 1200mm Ø
- Domestic surface water drain,
- Domestic foul water gravity sewer
- New foul water rising main
- S20H — Manhole with 'Hydro Brake' limiting discharge to agreed 'green field' run off rate
- Type 3 manhole - 450Ø
- Type 4 shallow PPIC inspection chamber - 250Ø
- ST — Silt trap inspection chamber - 450Ø
- Unadopted highway gully with Polypipe Permavoid Diffuser to discharge surface water into the sub grade
- H1 — Headwall discharge to ditch subject to OWC
- PS1 — Type 2 foul drainage pumping station
- Surface water attenuation storage
- Infiltration basin- open shallow pond
- Infiltration basin with open graded granular fill
- Porous block paved access court construction
- Porous block paved drive and parking construction
- Access road construction with open graded granular sub base to provide infiltration for surface water drainage from carriageway
- Green corridor area
- FFL: 11.60 — Proposed Finished Floor Level
- 35.750+ — Proposed Spot Level

Surface Water Drainage Strategy;

1. The proposed development will embrace the SuDS philosophy of sustainable drainage. The initial proposal and investigation is to utilise infiltration methods as the means of surface water disposal where possible. Winter groundwater monitoring has been undertaken and the highest ground water level at various locations across the site has been identified. Infiltration tests in accordance with BRE365 will be undertaken in winter months at locations across the site at proposed soakaway depths and above the measured groundwater levels. Results from the measured groundwater levels show it will not be feasible to install traditional individual domestic soakaways so, were available areas allow, shallow infiltration basins will be utilised. These will either be open or stone filled and be sited a minimum distance of 5.0 metres from foundations and not conflict with any root protection zones. Infiltration methods will drain carriageway and hardstanding areas. All domestic drives and access courts will be constructed in permeable block paving. Drainage for the main access road will discharge into the open graded sub base construction and through to existing ground. All infiltration discharge will be designed in accordance with Environment Agency criteria for the 1 in 100 year storm event with a 40% addition for climate change. An additional 10% of the measured domestic area will be added to any calculations to take into consideration *'urban creep'*. Prior to discharging to any infiltration measures surface water drainage will pass through silt traps or trapped gullies.
2. Due to the restrictions of the site layout infiltration measures cannot be employed across the whole site for domestic drainage discharge, It is therefore proposed to discharge these areas into the existing watercourse that runs from West to East along the southern boundary and which the developer has riperian discharge rights.
3. It is proposed that surface water drainage from areas not capable of utilising infiltration methods will discharge by gravity to an attenuation storage tank with a gravity discharge into the adjacent watercourse. The discharge rate will be set at the greenfield run off rate as agreed with Arun District Council. The volume of storage will be calculated to cater for the 1 in 100 year storm event with a 40% allowance for climate change and a 10% allowance for *'urban creep'*.
4. All surface water drainage features and pollution control measures will be maintained by the site specific management company set up for any site maintenance requirements and which will be funded by an annual payment from residents.

Foul Water Drainage Strategy;

1. North of the site, running along Barnham Road, is a 175mm dia. public foul sewer. Under current legislation Southern Water would have no objections to the foul drainage discharge from the site connecting into this sewer. There is an existing manhole, Ref 1101, situated opposite the site entrance into which the foul discharge from the site can drain to. Connection to the manhole would be subject to a Section 106 Agreement with Southern Water.
2. Due to the topography of the site and the proposed floor levels of the new development it will only be possible to utilise gravity connections into the new foul sewer serving the development for 18 of the new properties. The remaining 12 properties will discharge to the southern end of the site into a privately maintained pumping station. This will then pump the sewerage up to the new on-site foul sewer which will then discharge by gravity to the public foul sewer on barnham Road.

0m 10m 20m 30m 40m 50m
1:500m

SAFETY, HEALTH & ENVIRONMENTAL INFORMATION
CDM Regulations 2015

In addition to the hazards/risks normally associated with the type of work detailed on this drawing note should be made of the following:

- Working in vicinity of live highway
- Services to be located prior to any excavation work being undertaken
- Working on live foul sewers
- Deep excavations

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Contractor is not relieved of any of his obligations under all applicable health and safety regulations.

Rev.	Date	Details	Initials
B	25.08.21	Outfall to ditch and Note 3 amended	KN
A	07.09.20	Initial issue	KN

Drawing Status
PRELIMINARY FOR PLANNING

Project
BOWERIES
BARNHAM ROAD, EASTERGATE

Client
DOMUSEA DEVELOPMENTS

KAZYS NARBUTAS CONSULTING
Civil Engineering Consultant
Unit 5B, Tannery Court, Tannery Lane, East Wellow, Romsey, Hants. SO51 6DP
Telephone: 01794 322905 Email: kazys.n@ntlworld.com

Drawing Title
Engineering Details
Drawing Strategy

Drawn	Checked	Scales	Paper Size	Date
KN		1:500	A1	09.20
Job No.		Drawing No.		Revision
KNC1814		602-01		B

This drawing is the copyright of Kazys Narbutas Consulting and may not be copied, altered or reproduced in any form or passed to a third party without the consent of Kazys Narbutas Consulting. Do not scale from this drawing, use figured dimensions only. Dimensions should be checked and verified on site and any discrepancies should be reported to Kazys Narbutas Consulting as soon as possible.

ARUN DISTRICT COUNCIL 09/2020/PL