M40, JUNCTION 10

WATER SUPPLY STATEMENT

REQUIREMENT

This Statement has been prepared to address comments from the Fire and Rescue Service and Thames Water in relation to the existing water infrastructure capacity and the provision of adequate firefighting water supply and hydrant flow/ pressures to service Albion Land's proposed development at 'land to the west of the A43 and south of the B4100' and at 'land to the east of the A43 and south of the B4100'.

This statement relates to planning applications – 21/03267/OUT, 21/03268/OUT, and 21/03266/F.

Comments Raised	Response
"It is taken that these works will be subject to a Building Regulations application and subsequent statutory consultation with the fire service, to ensure compliance with the functional requirements of The Building Regulations 2010.	The works will be subject to building regulation application and subsequent statutory consultation with the fire and rescue service to ensure compliance with the functional requirements of the building regulations 2010.
Due to the remoteness of the site, we have a concern on the provision of an adequate firefighting water supply and adequate hydrant flow/pressures to the industrial site. This will require resolution prior to occupation / site development."	Regarding fire hydrants, ideally the Thames Water infrastructure will provide domestic, and the firefighting water supplies with hydrants located to comply with building regulations, all subject to the Thames Water infrastructure modelling and the resulting requirement for any reinforcement works. We have also included for a private hydrant connection which will have separate hydrant tank and pumps extended to serve the individual units. Refer to the document summary for further detail.
Thames Water comments: Thames Water have also expressed concerns with the existing water network infrastructure not being able to accommodate the needs of the development.	We are aware Thames Water will undertake a network modelling exercise to review the existing infrastructure, this may require offsite reinforcement works which will be completed as part of this development to ensure water service can be provided.
Thames Water have contacted the developer in an attempt to agree a position on water networks but have been unable to do so in the time available and as such Thames Water request that the following condition be added to any planning permission.	ESC has been liaising with Thames Water on the developer's behalf and have received Correspondence regarding the application refer to Appendix 1.

Comments Raised	Response
No development shall be occupied until confirmation has been provided that either:- all water network upgrades required to accommodate the additional flows to serve the development have been completed; or - a development and infrastructure phasing plan has been agreed with Thames Water to allow development to be occupied.	Please refer to the mitigation measures detailed below.

MITIGATION

The site of the proposed development is greenfield land and currently does not require, or draw, a water load. The new development will draw water from the Thames Water infrastructure for public health and firefighting use as a minimum.

A pre-planning application enquiry was made to Thames Water on 11th June 2021 based on the layout shown in the Applicant's indicative Scheme. Thames Water issued a response to the Applicant's pre-application enquiry on the 25th June 2021, which confirmed that the initial point of connection (at which the water supply serving the site will be connected) will be located on the B4100 as shown in Figure 1 below. Extracts of the Applicant's correspondence with Thames Water are included in Appendix 1.

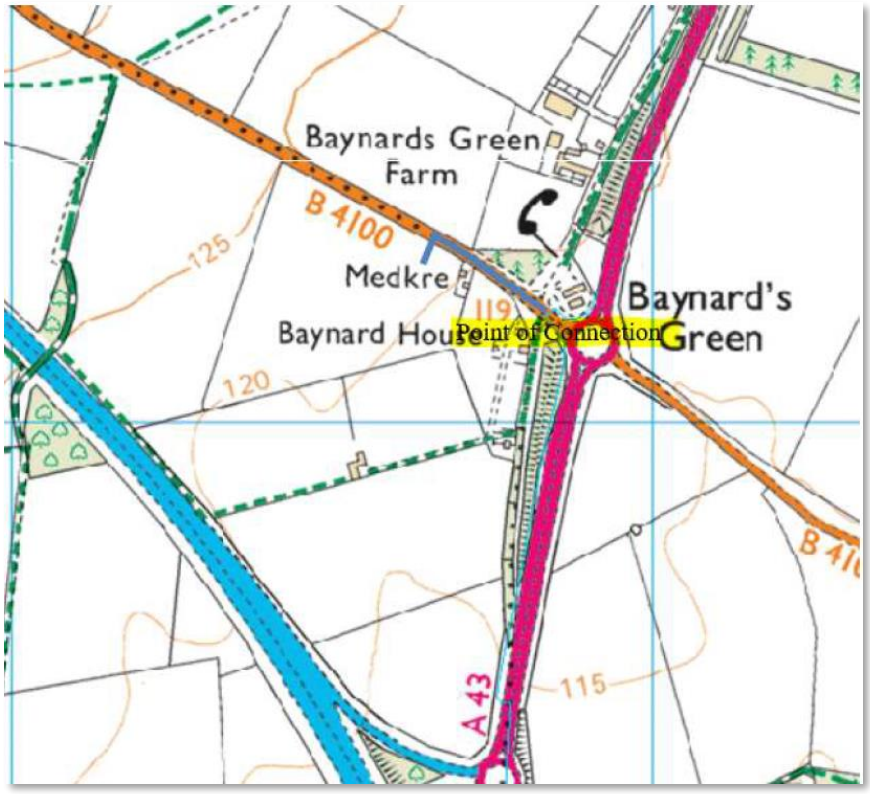


Fig 1 – Initial Point of Connection

A water supply application was made to an independent utility provider, Moreland Utilities Ltd for a mains cold water connection, Sprinkler connection and separate hydrant tank connection per building.

The application was made to ascertain that water services could be provided to service the development. It was confirmed within the quotation received that water services could be provided to service the development subject to the Thames Water modelling.

It is normal practice for Thames Water to undertake a network modelling exercise to review the existing infrastructure, this may require offsite reinforcement works which will be completed as part of this development to ensure water service can be provided.

Please note Sprinkler services will be subject to the individual tenants' requirements. The purpose of this application was to ensure the site had the capability of being served with water services The application was based on the proposals shown in Figure 2 below:-

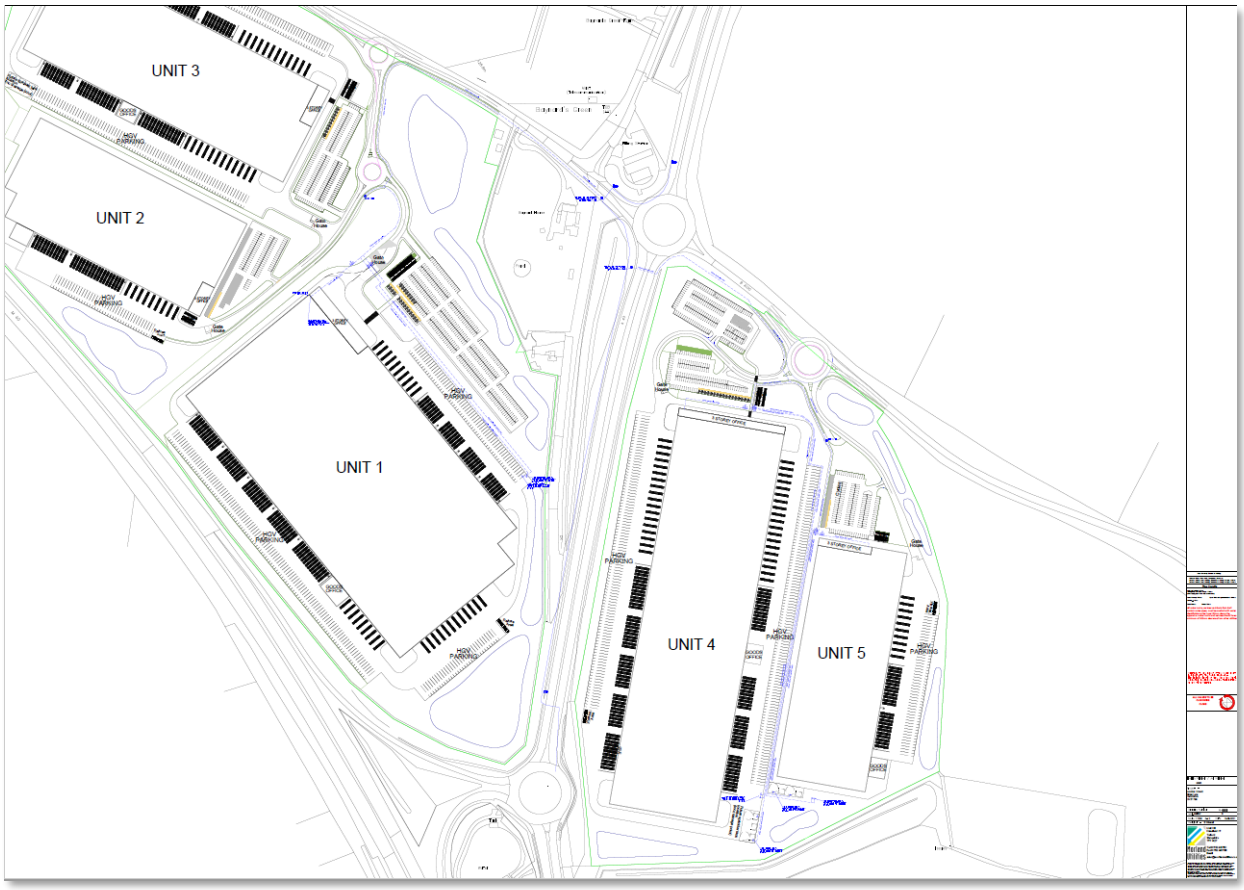


Fig 2 - Site Layout showing the proposed water services (Separate Copy of the drawing is attached)

The works will be subject to building regulation application and subsequent statutory consultation with the fire and rescue service to ensure compliance with the functional requirements of the building regulations 2010.

With reference to the provision of fire fighting facilities a separate sprinkler supply will be provided as part of the on-site water service installation for the installation of sprinklers by the individual tenants per unit.

Regarding fire hydrants, ideally the Thames Water infrastructure will provide domestic, and the firefighting water supplies with hydrants located to comply with building regulations, all subject to the Thames Water infrastructure modelling and the resulting requirement for any reinforcement works.

We have also made provision within Figure 2 above for a private hydrant connection which will be extended to serve the individual units please the extract following (Figure 3 & 4):-

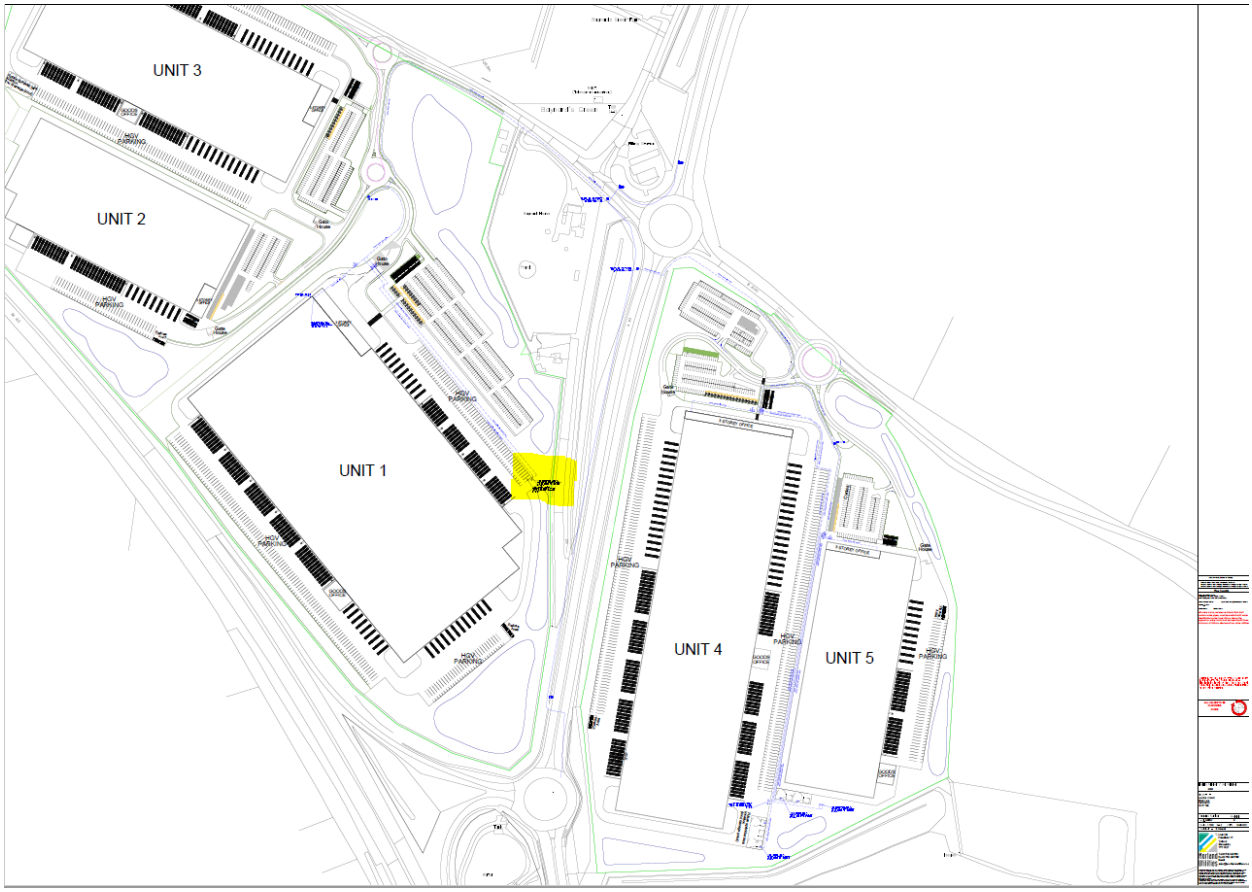


Fig 3 - Site Layout Highlighting the extract shown in Figure 4 below.

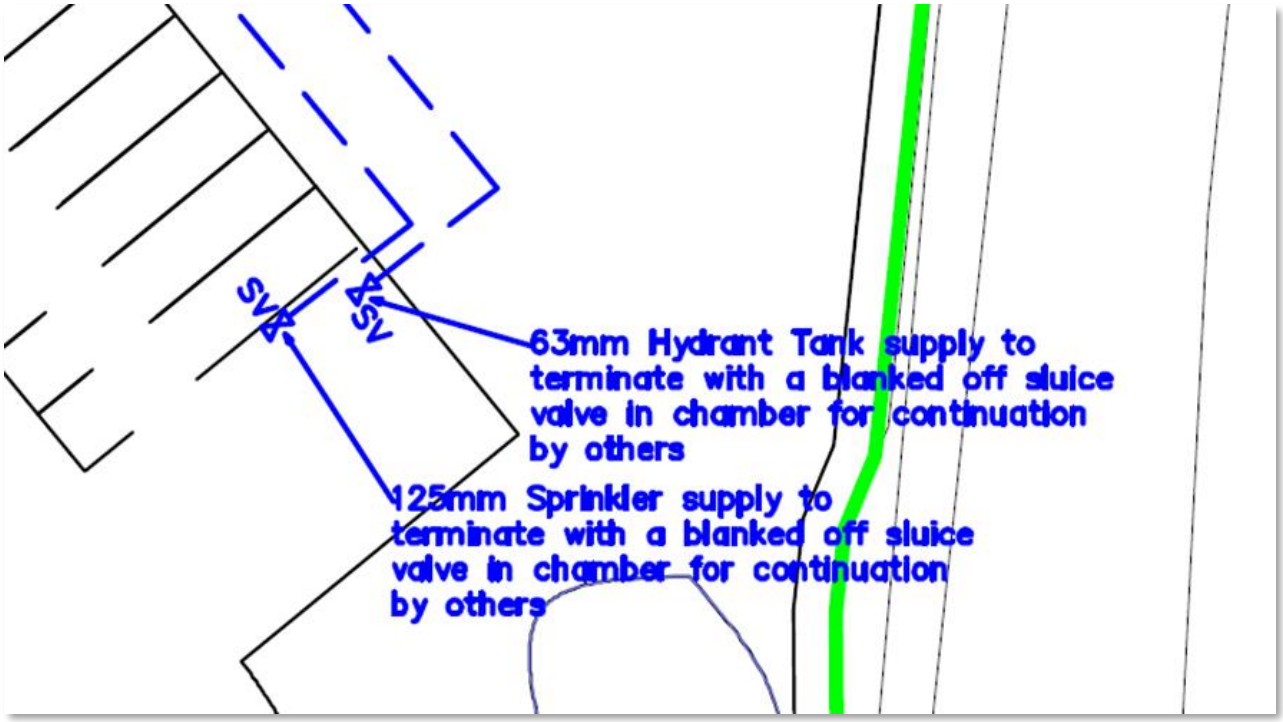


Fig 4 - Site Layout Extract

Should a private fire hydrant system be required, the pipework shall run below ground from the connection point to serve the fire hydrant main. Underground hydrants with isolation valves either side of the hydrant shall be installed, as required by current statutory regulations, with hydrants and valves located more than 6m away from the face of the building in areas unlikely to be obscured by parked vehicles and equally spaced at 90m intervals in a ring main arrangement.

Hydrant flow rates will be designed in accordance with current British standards and statutory requirements.

SUMMARY

As part of the due diligence for the development, contact was made with the local utility provider Thames Water and a supply application and quotation has been received from an independent utility provider (Morland Utilities Ltd) to service the development.

It was confirmed within the quotation received that water services could be provided to service the development subject to the Thames Water modelling.

It is normal practice for Thames Water to undertake a network modelling exercise to review the existing infrastructure, this may require offsite reinforcement works which will be completed as part of this development to ensure water service can be provided.

With regards to firefighting water supply and adequate hydrant flow/pressures, this has also been considered with mitigation measures in place should Thames Water infrastructure not be capable of providing firefighting water supplies.

The mitigation measures will be the installation of a private fire hydrant system. The pipework shall run below ground from the connection point to serve the fire hydrant main. Underground hydrants with isolation valves either side of the hydrant shall be installed, as required by current statutory regulations, with hydrants and valves located more than 6m away from the face of the building in areas unlikely to be obscured by parked vehicles and equally spaced at 90m intervals in a ring main arrangement.

Hydrant flow rates will be designed in accordance with current British standards and statutory requirements with a separate Hydrant tank and pumps for each building.

Engineering Services Consultancy Ltd

18 February 2022

APPENDIX 1

Clean Water

Your reference: DS6085214

Your site address: Land off Junction 10 M40 (A43), Bicester OX27 7SS

Mr Kim Nguyen
Engineering Services Consultancy Ltd
Griffin House
19 Ludgate Hill
Birmingham
B3 1DW

Clean water capacity report

Status: Capacity concerns
Date: 25th June 2021
Validity: Valid until 24th June 2022 or for the duration of your Local Authority planning permission when this report is used to support your application.

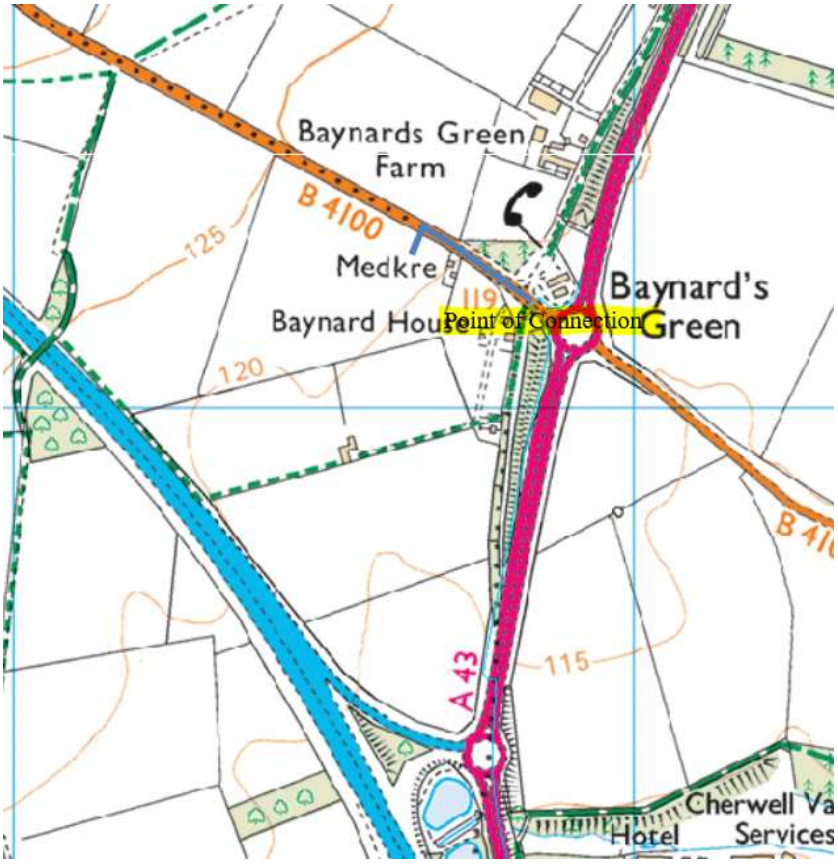
We're unable to confirm capacity for your whole development consisting of 277,281m^2 of warehouse space without further investigation. How to make a request for us to progress with network modelling activity is listed in the accompanying email.

Please be aware that this report is based upon the details and drawings provided. If there are any subsequent changes to these, then the contents of this report will become invalid and a new assessment will be needed.

Please note that the below POC is based on desktop study and it might change after capacity check study or site-specific survey.

Nearest point of connection / Your preferred point of connection

90mm main on B4100.



Contaminated land

If your site is on contaminated land, any new water pipes laid should be barrier pipe which is more expensive. If you think this is not the case you will need to provide a soil report when applying for new mains and services.

Diversions

From our records we don't anticipate that any clean water assets need to be diverted to accommodate your proposals.

Building water

It's important that you apply for a building water supply before you start using water on site even if you believe your supply is already metered. We need to ensure your account is properly set up and you have the correct meter for your supply or fines maybe imposed. Apply here.

Fire hydrant and sprinkler demand

Please note that we cannot confirm whether a fire hydrant or sprinkler demand can be accommodated on a new connection. You'll need to contact an independent consultant or specialist company for hydrant testing for fire-fighting purposes. Valve operations must be carried out by our Network Service Technician which can be booked on 0800 316 9800.

Asset location search

If you need help in identifying the location of existing water mains and sewers, you can get this information from any property search provider. We have a Property Searches team who will carry out an asset location search, which provides information on the location of known Thames Water clean and/or wastewater assets, including details of pipe sizes, direction of flow and depth (for which a fee is payable). You can find out more online or by calling us on 0845 070 9148.

Issued on behalf of the Clean Water Pre-Planning team, Developer Services, Thames Water, Clearwater Court, Vastern Road, Reading, RG1 8DB