

Appendix C.2

SOUTHERN WATER





WSP
Mountbatten House
Basing View
Basingstoke
Hampshire
RG21 4HJ

Your ref 70049200
Our ref 358834
Date 08 November 2019
Contact searches@southernwater.co.uk
Tel 0845 272 0845
0330 303 0276
Fax 01634 844514

Attention: Emiliya Stoykova

Dear Customer

Re: Provision of public sewer and water main record extract

Location: Crown Quay Lane, Sittingbourne, Kent, ME10 3HX

Thank you for your order regarding the provision of extracts of our sewer and/or water main records. Please find enclosed the extracts from Southern Water's records for the above location.

We confirm payment of your fee in the sum of £49.92 and enclose a VAT receipt for your records.

Customers should be aware that there are areas within our region in which there are neither sewers nor water mains. Similarly, whilst the enclosed extract may indicate the approximate location of our apparatus in the area of interest, it should not be relied upon as showing that further infrastructure does not exist and may subsequently be found following site investigation. Actual positions of the disclosed (and any undisclosed) infrastructure should therefore be determined on site, because Southern Water does not accept any responsibility for inaccuracy or omission regarding the enclosed plan. Accordingly it should not be considered to be a definitive document.

Should you require any further assistance regarding this matter, please contact the LandSearch team.

Yours faithfully

LandSearch

VAT receipt

Ordered by:

WSP
Basing View
Basingstoke
Hampshire
RG21 4HJ

VAT registration number: 813 0378 56
Order reference: 358834
Your reference: 70049200

Receipt for provision of an extract from the public sewer and/or water main records.

Location	Costs
Crown Quay Lane Sittingbourne Kent ME10 3HX	£41.60
Net total	£41.60
VAT	£8.32
Total	£49.92
Paid	Paid in full

Thank you for your payment:

Received on: 7 November 2019

For enquiries regarding the information provided in this receipt, please contact the LandSearch team:

Tel: 0845 270 0212
0330 303 0276 (individual consumers)

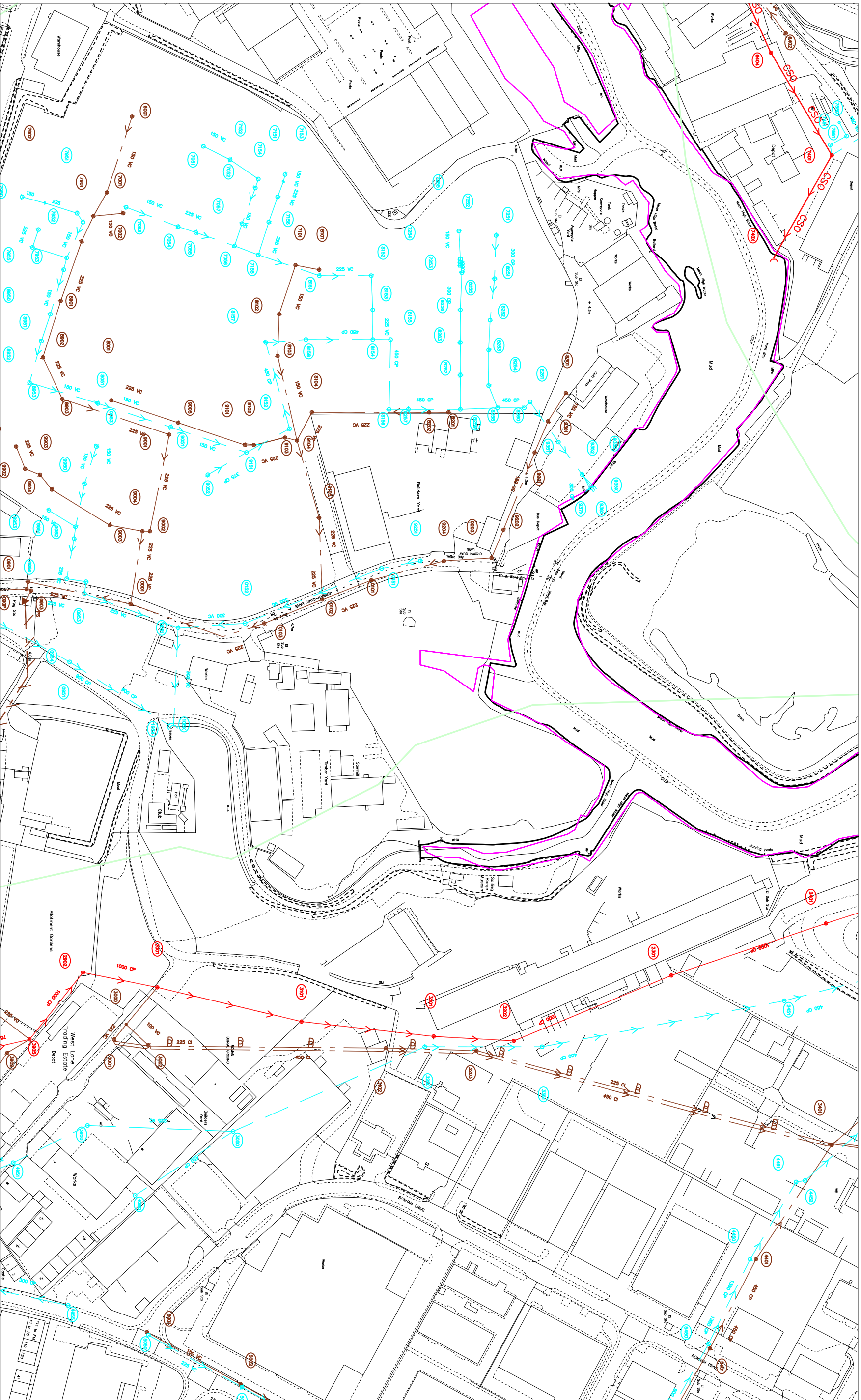
Email: searches@southernwater.co.uk

Web: www.southernwater.co.uk

LandSearch
Southern Water Services
Southern House
Capstone Road
Chatham
Kent
ME5 7QA



164514



163936

O.S. REF.
TQ9164SW

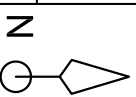
Title: 358834_Crown Quay Lane, Sittin

Drawn by: rohandas
 Scale: 1:2500

Date: 08/11/2019

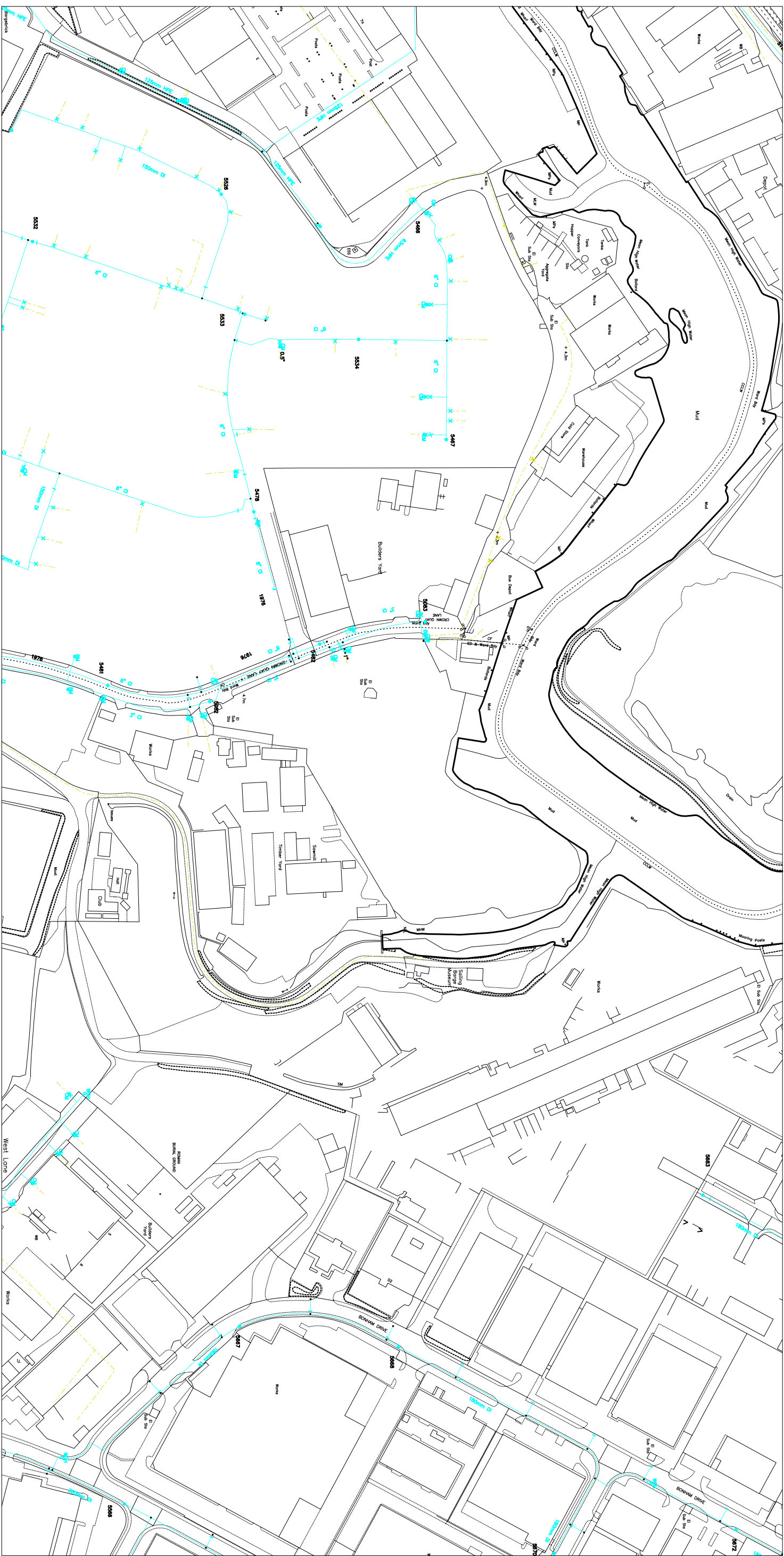
The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy.
 The actual positions should be determined on site.
WARNING: BAC pipes are constructed of Bonded Asbestos Cement
WARNING: Unknown (UK) materials may include Bonded Asbestos Cement

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591564

590624



LEGEND - MAINS

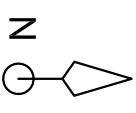
MATERIALS

- | | | | | | |
|---|--|---|------------------------------------|---|----------------------------|
| — | Distribution Main / Communication pipe | — | Clockwise closing valve | □ | Dialysis machine |
| — | Trunk Main | — | Fire Hydrant | ■ | Break pressure tank |
| — | Raw water main | — | Washout | — | Change node |
| — | Non potable | — | Washout hydrant | — | Pumping station |
| — | Abandoned main | — | Meier | — | Booster station |
| — | Proposed Main | — | Capped end | — | Insertion Flow Meter Point |
| — | Fire main | — | Emptying plug | — | Water tower |
| — | Non SWS | — | Stopcock | — | Service reservoir |
| — | Slice valve | — | Leak Noise Correlator Survey Point | — | Water Supply Works |
| — | Closed valve | — | Anode | — | Bore hole / Well |
| — | Air valve | — | Telemetry cable | — | Intake |
| — | Butterfly valve | — | Access point / hatchbox | — | Customer site |
| — | Pressure reducing valve | | | — | Swab insertion point |
| — | Reflex valve | | | | |
| — | Motorised valve | | | | |
-
- | | | |
|---|------------------------------------|-----|
| — | Alkathene | AK |
| — | Cast iron | CI |
| — | Span (grey) iron | SI |
| — | Concrete | CO |
| — | Ductile iron | DI |
| — | Bonded Asbestos Cement | BAC |
| — | Glass reinforced plastic | GRP |
| — | Glass reinforced epoxy | GRE |
| — | (Unplasticised) Polyvinyl chloride | PVC |
| — | Polyethylene | PE |
| — | Steel | ST |
| — | Concrete segments bolted | CSB |
| — | Concrete segments unbolted | CSU |
| — | Galvanised iron | GI |
| — | Ductile sleeve | DS |
| — | Concrete pre-stressed | CPS |
| — | High performance polyethylene | HPE |
| — | Unknown | ?? |

WARNING: BAC pipes are constructed of Bonded Asbestos Cement

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement

Drawn by: rohandas	O.S.Ref: TQ9164SW
Scale: 1:2500	TITLE: 358834_Crown Quay Lane, Sittin
Date: 08/11/2019	
<p>The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd. accept no responsibility in the event of inaccuracy. The actual positions of pipes should be determined on site.</p>	
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Emiliya Stoykova
WSP
Mountbatten House
Basing View
Basingstoke
Hampshire
RG21 4HJ

Your ref

Our ref
DS_CC_PDE-113864

Date
26 November 2019

Contact

Tel 0330 303 0119

Dear Ms Stoykova,

Site: Land off Crown Quay Lane, Sittingbourne, Kent, ME10 3JB.

We have completed the capacity check for the above development site and the results are as follows:

Foul Water

Following initial investigations, there is currently adequate capacity in the local sewerage network to accommodate a foul flow for the above development at/downstream of manhole reference TQ91640103. Please note that no surface water flows (existing or proposed) can be accommodated within the existing foul sewerage system.

It should be noted that this information is only a hydraulic assessment of the existing sewerage network and does not grant approval for a connection to the public sewerage system. A formal S106 connection application is required to be completed and approved by Southern Water Services. Please see the link below:

<https://developerservices.southernwater.co.uk/ConnectiontoPublicSewer/ApplicationForm>

Should you require any further information, please contact us at the above mentioned phone number or address shown in the footer.

Yours sincerely,



Tim Peacock-Bjurström
Technical Delivery Lead
Business Channels

Please note: - The information provided above does not grant approval for any designs/drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.

Appendix C.3

KENT COUNTY COUNCIL



**WSP**

Mountbatten House,
Basing View,
Basingstoke,
RG21 4HJ

Flood and Water Management

Invicta House
Maidstone
Kent
ME14 1XX

Website: www.kent.gov.uk/flooding
Email: suds@kent.gov.uk
Tel: 03000 41 41 41
Our Ref: NON/2019/076410
Date: 3 December 2019

Application No: N/A

Location: Crown Quay Lane, Eden Village, Swale, Kent, South East, England, ME10 3ST

Proposal: Residential development.

Our understanding from your email is that you wish to utilise an outfall which is associated with a culvert beneath your development site. No information was provided as to whether the culvert is a culverted watercourse or serves a land drainage function. Within the attachments provided, we could not find any information on the culvert position.

In principle we would accept unattenuated discharge through an outfall location to the tidal stream, with the expectation that water quality considerations will be adequately dealt with and that no changes are occurring to any existing outfall or no new outfalls require consenting.

This response is caveated in that you have not provided full and detailed information in relation to the culvert location and any drainage contributions to the culvert. Any further submission would need to provide:

- a) Information in relation to the exact location of the existing culvert with a survey of its condition and determination of its catchment and whether there are any existing connections to the culvert from the site area.
- b) If the culvert is a previously culverted watercourse consideration will need to be given to any inflows into the existing system and this will need to be fully assessed. If the culvert is entirely within the land ownership of your client and does not serve any other land area excepting your client's land, then the responsibility for that culvert would be with the landowner.
- c) If the culvert is providing wider drainage function for a larger catchment, then there may be consenting requirements in relation to any works on the culvert. It is important that this is fully assessed.

- d) The capacity of the proposed outfall will need to be confirmed and an assessment undertaken as to any new contributions occurring to the culvert as well as any existing contributions.
- e) It is noted that the ownership of the culvert is uncertain. This will need to be determined as there needs to be surety that maintenance will occur in the future to maintain a free discharge and culvert repair.

This response has been provided using the best knowledge and information submitted as part of the planning application at the time of responding and is reliant on the accuracy of that information.

Yours faithfully,

Bronwyn Buntine

Sustainable Drainage Team Leader
Flood and Water Management

Appendix C.4

PINNACLE CONSULTANT
ENGINEERS



☐ Mercury House
Broadwater Road
Welwyn Garden City
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T: 01707 527 630

☐ Pinnacle House
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Norfolk
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■ Prudential Buildings
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10 Victoria Street
Bristol
BS1 6BN
T: 0117 214 0860

☐ Grosvenor Court
67a Patrick Street
Dun Laoghaire
Co Dublin
T: +353 1231 1041

☐ Woolverstone House
61 Berners Street
London
W1T 3NJ
T: 0207 299 8299

PROJECT: Eurolink Way, Sittingbourne

PROJECT REF: 150610

TITLE: Flood risk discussions with the Environment Agency

DATE: 11th December 2015

1 Introduction

Pinnacle Consulting Engineers have been commissioned by Tesco Stores Ltd to provide flood risk advice for the 'Eurolink Way' site located off Eurolink Way, Sittingbourne, Kent, ME10 4PB.

As part of Pinnacle's commission, we have proposed a strategy for raising ground levels at the site, in order to remove areas from the high risk flood zone (Flood Zone 3). This will allow some parts of the site currently in Flood Zone 3, to be removed from this high risk flood zone, allowing future residential development to take place.

Pinnacle have consulted with the Environment Agency (EA) regarding the proposed development and raising land in order to reduce flood risk to an acceptable level for residential development.

Consultation has taken place in the form of telephone conversations followed up with email confirmation as shown below and detailed in Appendix A.

2 Details of Environment Agency Consultation

Site specific flood level data was purchased from the EA as shown in Appendix B.

It was agreed with the EA that a flood level of 5.74m AOD (corresponding to the 200 year defended scenario including an allowance for climate change to 2115) is to be used for ground raising. An appropriate freeboard is 300mm for living units and 600mm for sleeping units. (See Appendix A, email dated 9th November 2015 from Frank Heeley, Sustainable Places Team Leader at the Environment Agency to Jane Pitten at Pinnacle Consulting Engineers).

See Table 2.1 below for a summary of the agreed raised ground levels.

Table 2.1: Proposed levels as discussed with the Environment Agency

Proposed Development	Minimum proposed level m (AOD)
External areas (access roads, footpaths etc.)	5.74
Finished floor level of living units	6.04
Finished floor level sleeping units	6.34

Although it is proposed to raise ground levels, due to the tidal nature of the flood risk, no flood compensation storage will be required on the site. (See Appendix A, email dated 28th October 2015 from Frank Heeley Sustainable Places Team Leader at the Environment Agency to Paul Mennell at Pinnacle Consulting Engineers).

It was also agreed that raising ground levels will be acceptable without the need for bespoke flood risk modelling at the site. (See Appendix A, email dated 14th October 2015 from Frank Heeley Sustainable Places Team Leader at the Environment Agency to Paul Mennell at Pinnacle Consulting Engineers).

<input type="checkbox"/> Mercury House Broadwater Road Welwyn Garden City Hertfordshire AL7 3BQ T: 01707 527 630	<input type="checkbox"/> Pinnacle House 3 Meridian Way Norwich Norfolk NR7 0TA T: 01603 327 170	<input checked="" type="checkbox"/> Prudential Buildings 1st Floor 10 Victoria Street Bristol BS1 6BN T: 0117 214 0860	<input type="checkbox"/> Grosvenor Court 67a Patrick Street Dun Laoghaire Co Dublin T: +353 1231 1041	<input type="checkbox"/> Woolverstone House 61 Berners Street London W1T 3NJ T: 0207 299 8299
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3 Potential developable areas

Figure 3.1 below shows the site's existing flood risk zones.

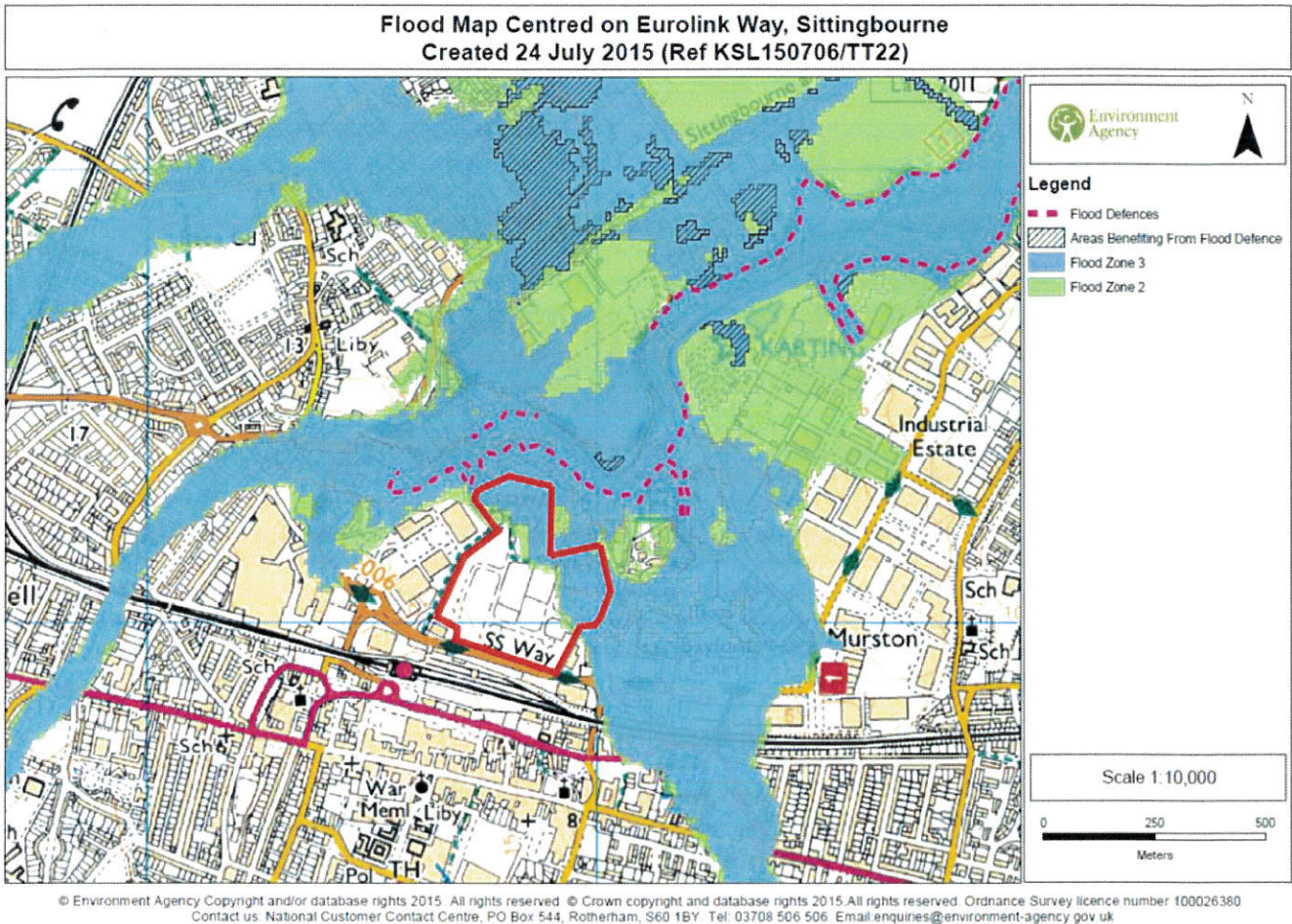


Figure 3.1 Environment Agency flood map

The areas in blue shown as Flood Zone 3 could be raised to a minimum level of 5.74m OD (and higher for finished floor levels as shown in Table 2.1) in order to remove this part of the site from the Flood Zone 3 higher category of flood risk.

As shown in Appendix C, this area is currently at a level of approximately 4m AOD to 5.5m AOD. In order for residential development to go ahead in this area, it would have to be raised by a range of 0.24m to 1.74m. See Appendix C for an indication of areas that would require raising, based on the topographical levels on the site. Further raising would be required for finished floor levels as shown in Table 2.1, depending on what type of use the floor would have.

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Appendix A: Correspondence with the Environment Agency

☐ Mercury House
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Hertfordshire
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London
W1T 3NJ
T: 0207 299 8299

4 Compensatory Flood Risk

The flood risk to the site is tidal in nature. The site also benefits from flood defences. During initial discussions with the EA, as shown in Appendix A, there was discussion regarding carrying out flood modelling on the site and assessing the effects of raising land and discussions regarding providing flood storage compensation. Pinnacle submitted the drawing as shown in Appendix C showing land raising that could be required. The EA confirmed (email 14th October) that a bespoke model was not required for the site if proposing land raising, the EA further confirmed (email 28th October) that flood storage impacts do not need to be considered.

It is therefore considered, due to the tidal nature of the flood risk, that any land raising would not displace flood risk elsewhere.