## **Appendix C:** Thames Water Asset Plans

# Asset location search

Property Searches

| | |
|---|---|
| **Search address supplied** | Land West Of The A10<br>Buntingford<br>SG9 9ER |
| **Your reference** | N/A |
| **Our reference** | ALS/ALS Standard/2023_4799812 |
| **Search date** | 27 March 2023 |

**Notification of Price Changes**

From 1st April 2023 Thames water Property Searches will be increasing the prices of its CON29DW, CommercialDW Drainage & Water Enquiries and Asset Location Searches. Historically costs would rise in line with RPI but as this currently sits at 14.2%, we are capping it at 10%.

Customers will be emailed with the new prices by January 1st 2023.

Any orders received with a higher payment prior to the 1st April 2023 will be non-refundable. For further details on the price increase please visit our website at www.thameswater-propertysearches.co.uk

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW

searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk

0800 009 4540

# Asset location search

Property Searches

**Search address supplied:** Land West Of The A10, Buntingford, SG9 9ER

Dear Sir / Madam

**An Asset Location Search is recommended when undertaking a site development.**It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This searchprovides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

**Contact Us**

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk
Web: www.thameswater-propertysearches.co.uk

## Waste Water Services

**Please provide a copy extract from the public sewer map.**

The following quartiles have been printed as they fall within Thames' sewerage area:

TL3529NE
TL3530NE
TL3529SW
TL3629NW
TL3628NW
TL3629SW
TL3529SE
TL3530SE
TL3630SW
TL3528NE
TL3529NW

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

The following quartiles have not been printed as they contain no assets:

TL3429NE
TL3528NW
TL3430NW
TL3429SW
TL3430NE
TL3428NE
TL3428NW
TL3530SW
TL3530NW
TL3430SW
TL3630NW

TL3429SE
TL3429NW
TL3430SE

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

**Clean Water Services**

**Please provide a copy extract from the public water main map.**

Following examination of our statutory maps, Thames Water has been unable to find any plans of water mains within this area. If you require a connection to the public water supply system, please write to:

New Connections / Diversions
Thames Water
Network Services Business Centre
Brentford
Middlesex
TW8 0EE

Tel: 0845 850 2777
Fax: 0207 713 3858
Email: developer.services@thameswater.co.uk

The following quartiles have not been printed as they are out of Thames' water catchment area. For details of the assets requested please contact the water company indicated below:

| | |
|---|---|
| TL3429NE | Affinity Water |
| TL3528NW | Affinity Water |
| TL3430NW | Affinity Water |
| TL3429SW | Affinity Water |
| TL3529NE | Affinity Water |
| TL3530NE | Affinity Water |
| TL3430NE | Affinity Water |
| TL3428NE | Affinity Water |
| TL3529SW | Affinity Water |
| TL3428NW | Affinity Water |

| | |
|---|---|
| TL3629NW | Affinity Water |
| TL3530SW | Affinity Water |
| TL3530NW | Affinity Water |
| TL3628NW | Affinity Water |
| TL3629SW | Affinity Water |
| TL3430SW | Affinity Water |
| TL3529SE | Affinity Water |
| TL3630NW | Affinity Water |
| TL3530SE | Affinity Water |
| TL3630SW | Affinity Water |
| TL3429SE | Affinity Water |
| TL3429NW | Affinity Water |
| TL3528NE | Affinity Water |
| TL3430SE | Affinity Water |
| TL3529NW | Affinity Water |

Affinity Water Ltd
Tamblin Way
Hatfield
AL10 9EZ

Tel: 0345 3572401

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

**Payment for this Search**

A charge will be added to your suppliers account.

## Further contacts:

### Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

### Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Based on the Ordnance Survey Map with the sanction of the Controller of H.M Stationary Office License Number 10019345

# ALS/ALS Standard/2023_4799812




The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified before any works are undertaken. Crown copyright Reserved

| | |
|---|---|
| **Scale:** | 1:1791 |
| **Width:** | 500m |
| **Printed By:** | Skrishna1 |
| **Print Date:** | 27/03/2023 |
| **Map Centre:** | 535750,229750 |
| **Grid Reference:** | TL3529NE |

**Comments:**

# ALS/ALS Standard/2023_4799812

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

| REFERENCE | COVER LEVEL | INVERT LEVEL |
|---|---|---|
| 98ZK | | |
| 97PM | | |
| 97WK | | |
| 98HH | | |
| 98HF | | |
| 98XD | | |
| 97WA | | |
| 96XA | | |
| 97WF | | |
| 97WG | | |
| 97HJ | | |
| 97HI | | |
| 97HL | | |
| 97HG | | |
| 98HA | | |
| 87NA | | |
| 98HE | | |
| 97HQ | | |
| 97HZ | | |
| 97HP | | |
| 97HO | | |
| 97HB | | |
| 97HD | | |
| 97HF | | |
| 9601 | 103.62 | 100.62 |
| 9604 | 2.21 | |
| 90NA | | |
| 99WD | | |
| 99WB | | |
| 99WH | | |
| 9651 | 102.82 | 101.61 |
| 9650 | 102.08 | 100.98 |
| 98HX | | |
| 98HW | | |
| 98HU | | |
| 98AA | | |
| 88HC | | |
| 98ZC | | |
| 98ZE | | |
| 98ZA | | |
| 98HL | | |
| 98HK | | |
| 98HO | | |
| 98HR | | |
| 98HQ | | |
| 98HT | | |
| 98ZH | | |
| 6703 | 111.79 | 108.39 |
| 6702 | 112.09 | 108.12 |
| 6701 | 112.35 | 107.85 |
| 6753 | 110.62 | 108.82 |
| 6552 | 109.62 | 106.92 |
| 6553 | 110.24 | 109.09 |
| 67HE | | |
| 68HE | | |
| 68HD | | |
| 68HB | | |
| 66HF | | |
| 6603 | 111.71 | 109.81 |
| 6551 | 109.77 | 106.17 |
| 68HA | | |
| 58HZ | | |
| 58HA | | |
| 57HA | | |
| 57HC | | |
| 67HC | | |
| 67HF | | |
| 6550 | 106.68 | 104.83 |
| 6750 | 112.65 | 108.15 |
| 6504 | 110.49 | 106.69 |
| 65HE | | |
| 65HL | | |
| 66TB | | |
| 66HV | | |
| 66HE | | |
| 66HB | | |
| 67HG | | |
| 67HI | | |
| 79NE | | |
| 78NA | | |
| 79NB | | |

| REFERENCE | COVER LEVEL | INVERT LEVEL |
|---|---|---|
| 98ZG | | |
| 97WI | | |
| 98HI | | |
| 98HZ | | |
| 98HJ | | |
| 98HC | | |
| 97WB | | |
| 97XD | | |
| 97WH | | |
| 97WE | | |
| 97HH | | |
| 97HK | | |
| 99HA | | |
| 97HA | | |
| 88NA | | |
| 97WJ | | |
| 97HS | | |
| 97HT | | |
| 97HN | | |
| 97HM | | |
| 97HV | | |
| 97HC | | |
| 97HE | | |
| 9750 | 104.44 | 103.55 |
| 9652 | 103.68 | 102.38 |
| 99NC | | |
| 99WF | | |
| 99WA | | |
| 99WG | | |
| 98HB | | |
| 9605 | 102.42 | 100 |
| 9501 | 101.89 | 99.89 |
| 98HY | | |
| 98HG | | |
| 98HD | | |
| 88HB | | |
| 98ZD | | |
| 98ZF | | |
| 98ZB | | |
| 98HN | | |
| 88HA | | |
| 98HM | | |
| 98HP | | |
| 98HS | | |
| 98xU | | |
| 98HV | | |
| 6752 | 111.89 | 108.54 |
| 6653 | 112.57 | 107.78 |
| 6704 | 110.65 | 108.55 |
| 6654 | 112.48 | 111.13 |
| 6604 | 112.27 | 107.52 |
| 6502 | 108.22 | 105.75 |
| 66HC | | |
| 58HD | | |
| 68HI | | |
| 68HC | | |
| 661A | | |
| 6651 | 111.76 | 107.36 |
| 6650 | 111.43 | 107.06 |
| 6652 | 111.68 | 108.83 |
| 67HA | | |
| 58HB | | |
| 57HE | | |
| 57HB | | |
| 67HB | | |
| 67HD | | |
| 67HH | | |
| 6501 | 106.19 | 104.56 |
| 6601 | 111.25 | 106.87 |
| 6503 | 109.78 | 106.63 |
| 75HH | | |
| 66TA | | |
| 66TC | | |
| 66HW | | |
| 66HA | | |
| 67HK | | |
| 67HJ | | |
| 79NC | | |
| 79ND | | |
| 79NA | | |
| 67HO | | |

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# ALS/ALS Standard/2023_4799812

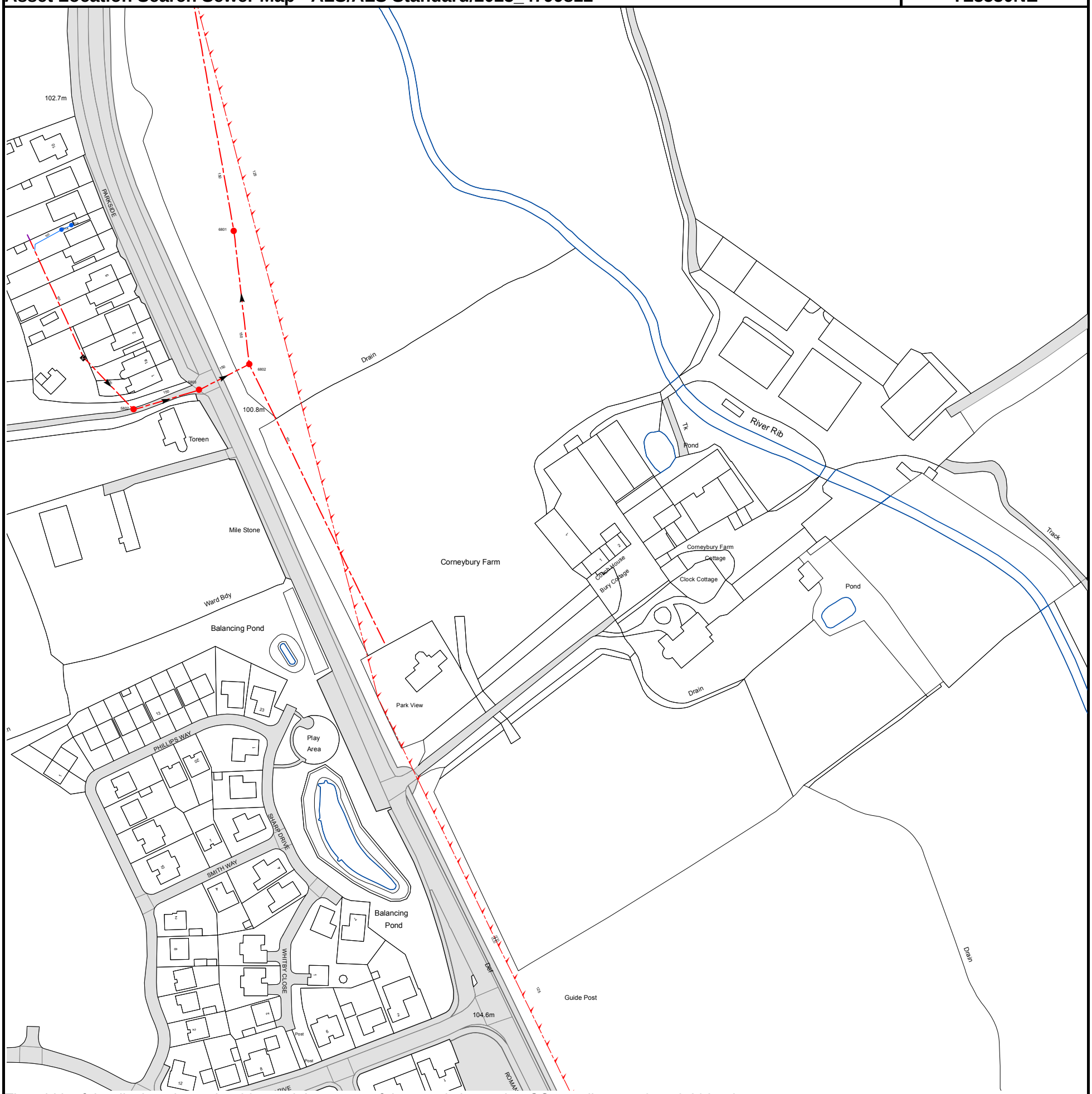
NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

| REFERENCE | COVER LEVEL | INVERT LEVEL |
|---|---|---|
| 67HM | | |
| 66HZ | | |
| 66HU | | |
| 75HC | | |
| 75HF | | |
| 65HC | | |
| 66HL | | |
| 65HO | | |
| 65HN | | |
| 65HJ | | |
| 65HA | | |
| 65HI | | |
| 66HK | | |
| 66HH | | |
| 75HA | | |
| 75HB | | |
| 66HT | | |
| 66HQ | | |
| 66HG | | |
| 66HX | | |
| 6605 | | |
| 9603 | 103.72 | 101.42 |
| 9602 | 103.87 | 101.77 |
| 9607 | | |
| 66HD | | |
| 65HB | | |
| 991K | | |

| REFERENCE | COVER LEVEL | INVERT LEVEL |
|---|---|---|
| 66HY | | |
| 66HS | | |
| 75HD | | |
| 75HE | | |
| 65XA | | |
| 65HD | | |
| 66HO | | |
| 6505 | | |
| 65HM | | |
| 65HH | | |
| 65HK | | |
| 66HI | | |
| 66HJ | | |
| 76HA | | |
| 76HB | | |
| 6751 | 111.85 | 108.46 |
| 66HR | | |
| 66HP | | |
| 67HL | | |
| 66HM | | |
| 85NA | | |
| 6602 | 111.7 | 107.05 |
| 9606 | | |
| 66XE | | |
| 661B | | |
| 671O | | |
| 791F | | |

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| Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812 | TL3530NE |
|---|---|




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535750,230750

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

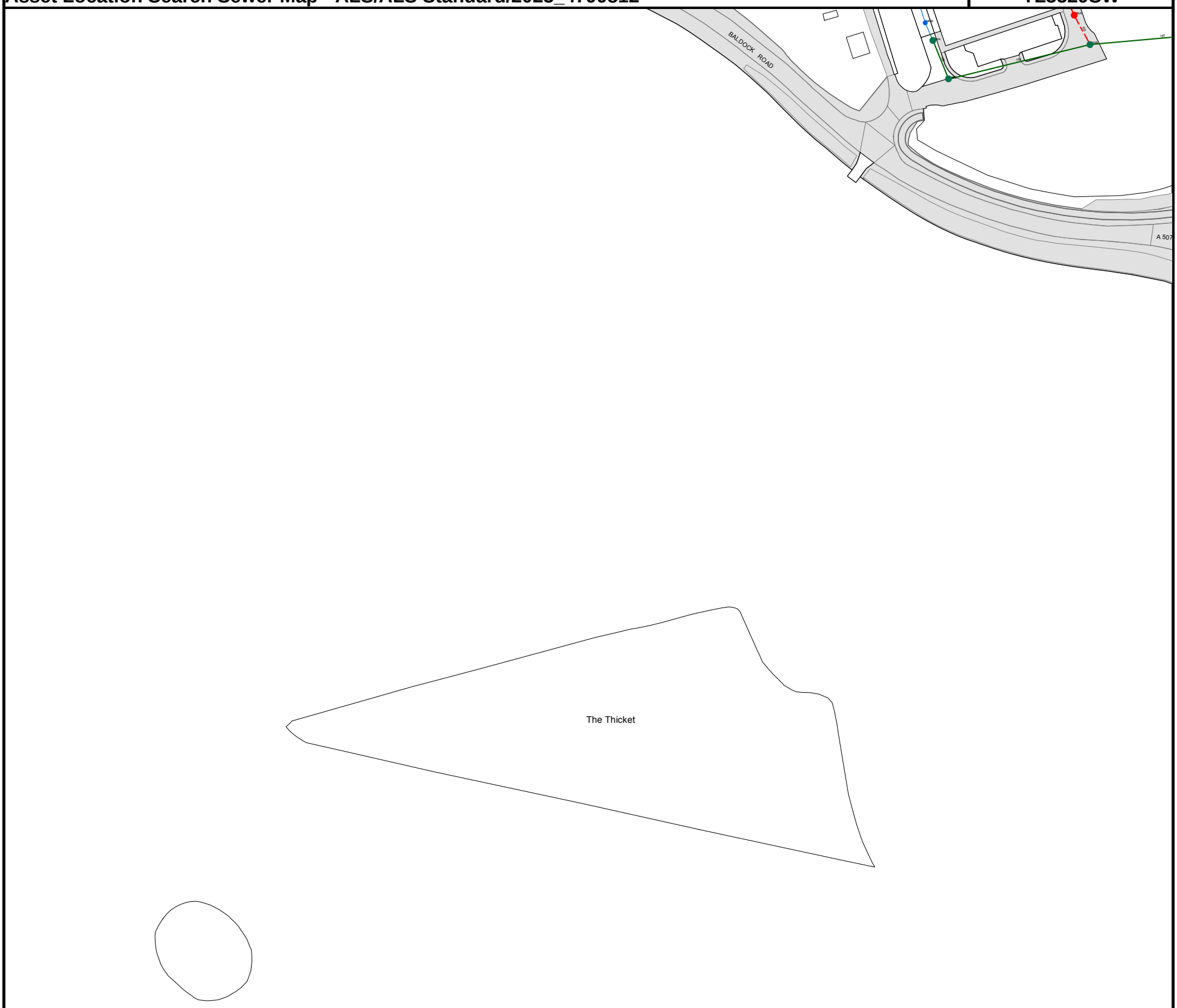
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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 5802 | 101.76 | 100.75 |
| 5803 | 100.78 | 99.83 |
| 6802 | 100.05 | 99.25 |
| 6801 | 100.86 | 99.1 |
| 581A | n/a | n/a |
| 581B | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

**Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812** | **TL3529SW**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535250,229250

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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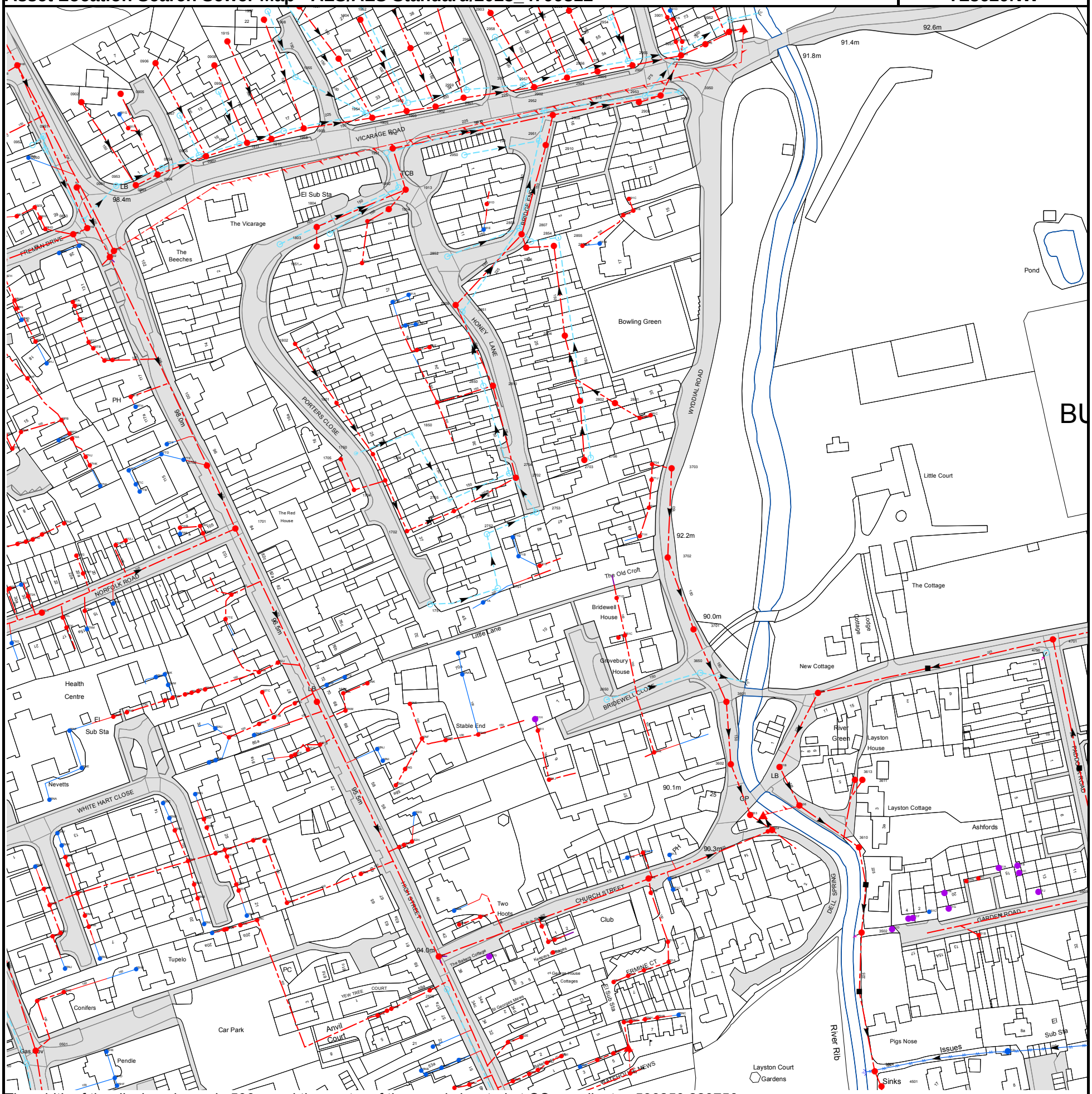
NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 34NB | n/a | n/a |
| 34NA | n/a | n/a |
| 44NC | n/a | n/a |
| 44NA | n/a | n/a |
| 44NB | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3629NW**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 536250,229750

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 451A | n/a | n/a |
| 451B | n/a | n/a |
| 451F | n/a | n/a |
| 451C | n/a | n/a |
| 451G | n/a | n/a |
| 451K | n/a | n/a |
| 451J | n/a | n/a |
| 451H | n/a | n/a |
| 451I | n/a | n/a |
| 461C | n/a | n/a |
| 461A | n/a | n/a |
| 461B | n/a | n/a |
| 4750 | 95.14 | 94.44 |
| 4701 | 95.07 | 92.72 |
| 351C | n/a | n/a |
| 35NC | n/a | n/a |
| 3701 | 90.38 | 89.6 |
| 3650 | 90.2 | 89.3 |
| 3601 | 89.83 | 89.33 |
| 3602 | 89.89 | 89.29 |
| 3603 | 90.41 | 88.91 |
| 3604 | n/a | n/a |
| 361B | n/a | n/a |
| 3606 | 89.829 | 88.629 |
| 3608 | 90.2 | 89.07 |
| 3613 | n/a | n/a |
| 3610 | 89.61 | 88.54 |
| 3502 | 89.44 | 88.39 |
| 3611 | n/a | n/a |
| 3504 | 89.35 | 88.25 |
| 4501 | 90.63 | 88.19 |
| 451D | n/a | n/a |
| 451E | n/a | n/a |
| 251C | n/a | n/a |
| 251B | n/a | n/a |
| 25NC | n/a | n/a |
| 25ND | n/a | n/a |
| 251F | n/a | n/a |
| 351D | n/a | n/a |
| 2502 | 90.67 | 89.37 |
| 261B | n/a | n/a |
| 361A | n/a | n/a |
| 261A | n/a | n/a |
| 261J | n/a | n/a |
| 261K | n/a | n/a |
| 26ND | n/a | n/a |
| 261I | n/a | n/a |
| 261H | n/a | n/a |
| 2650 | 92.25 | 91.63 |
| 26NA | n/a | n/a |
| 27NA | n/a | n/a |
| 271E | n/a | n/a |
| 261C | n/a | n/a |
| 271A | n/a | n/a |
| 271D | n/a | n/a |
| 2751 | n/a | n/a |
| 271C | n/a | n/a |
| 3702 | 91.86 | 91.06 |
| 271B | n/a | n/a |
| 271G | n/a | n/a |
| 271H | n/a | n/a |
| 25NT | n/a | n/a |
| 25NZ | n/a | n/a |
| 25NM | n/a | n/a |
| 25NL | n/a | n/a |
| 251J | n/a | n/a |
| 25NK | n/a | n/a |
| 25NE | n/a | n/a |
| 25NJ | n/a | n/a |
| 251E | n/a | n/a |
| 25HD | n/a | n/a |
| 25NI | n/a | n/a |
| 25HC | n/a | n/a |
| 252F | n/a | n/a |
| 252E | n/a | n/a |
| 25NF | n/a | n/a |
| 25NG | n/a | n/a |
| 25NH | n/a | n/a |
| 25HB | n/a | n/a |
| 251Q | n/a | n/a |
| 251P | n/a | n/a |
| 251R | n/a | n/a |
| 351A | n/a | n/a |
| 252G | n/a | n/a |
| 251D | n/a | n/a |
| 251A | n/a | n/a |
| 351B | n/a | n/a |
| 16TF | n/a | n/a |
| 16TG | n/a | n/a |
| 16NJ | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 16TH | n/a | n/a |
| 26NB | n/a | n/a |
| 16NF | n/a | n/a |
| 161D | n/a | n/a |
| 16XA | n/a | n/a |
| 16NJ | n/a | n/a |
| 161A | n/a | n/a |
| 161B | n/a | n/a |
| 16NM | n/a | n/a |
| 16NE | n/a | n/a |
| 161C | n/a | n/a |
| 1601 | 95.88 | 93.9 |
| 16NL | n/a | n/a |
| 16TC | n/a | n/a |
| 06NT | n/a | n/a |
| 06NU | n/a | n/a |
| 161F | n/a | n/a |
| 16NK | n/a | n/a |
| 161E | n/a | n/a |
| 16TA | n/a | n/a |
| 162J | n/a | n/a |
| 17TE | n/a | n/a |
| 1751 | 94.8 | 93.86 |
| 17TI | n/a | n/a |
| 15NC | n/a | n/a |
| 15NG | n/a | n/a |
| 25NA | n/a | n/a |
| 15NC | n/a | n/a |
| 05NB | n/a | n/a |
| 1501 | n/a | n/a |
| 05NA | n/a | n/a |
| 1502 | n/a | n/a |
| 15NK | n/a | n/a |
| 1602 | n/a | n/a |
| 06ND | n/a | n/a |
| 16NB | n/a | n/a |
| 162I | n/a | n/a |
| 162D | n/a | n/a |
| 162H | n/a | n/a |
| 16NA | n/a | n/a |
| 16ND | n/a | n/a |
| 06NE | n/a | n/a |
| 06NF | n/a | n/a |
| 162G | n/a | n/a |
| 06NG | n/a | n/a |
| 16NH | n/a | n/a |
| 16NG | n/a | n/a |
| 06NI | n/a | n/a |
| 16NI | n/a | n/a |
| 16NH | n/a | n/a |
| 16TE | n/a | n/a |
| 05HF | n/a | n/a |
| 05HD | n/a | n/a |
| 15WC | n/a | n/a |
| 15NB | n/a | n/a |
| 25WD | n/a | n/a |
| 0550 | 98.89 | 97.53 |
| 05HE | n/a | n/a |
| 0501 | 98.78 | 97.41 |
| 15NA | n/a | n/a |
| 151A | n/a | n/a |
| 151B | n/a | n/a |
| 05HA | n/a | n/a |
| 05HC | n/a | n/a |
| 151D | n/a | n/a |
| 2550 | n/a | n/a |
| 05HB | n/a | n/a |
| 05NJ | n/a | n/a |
| 05NF | n/a | n/a |
| 2501 | 94.12 | 91.998 |
| 05NM | n/a | n/a |
| 05ND | n/a | n/a |
| 05NI | n/a | n/a |
| 15HA | n/a | n/a |
| 15HB | n/a | n/a |
| 05NE | n/a | n/a |
| 15ND | n/a | n/a |
| 05NC | n/a | n/a |
| 07XG | n/a | n/a |
| 07XM | n/a | n/a |
| 07XI | n/a | n/a |
| 07XL | n/a | n/a |
| 0701 | 100.73 | 98.58 |
| 07XO | n/a | n/a |
| 07XP | n/a | n/a |
| 072K | n/a | n/a |
| 07WJ | n/a | n/a |
| 072J | n/a | n/a |
| 072I | n/a | n/a |
| 07WF | n/a | n/a |
| 07WG | n/a | n/a |
| 07WH | n/a | n/a |
| 07HB | n/a | n/a |

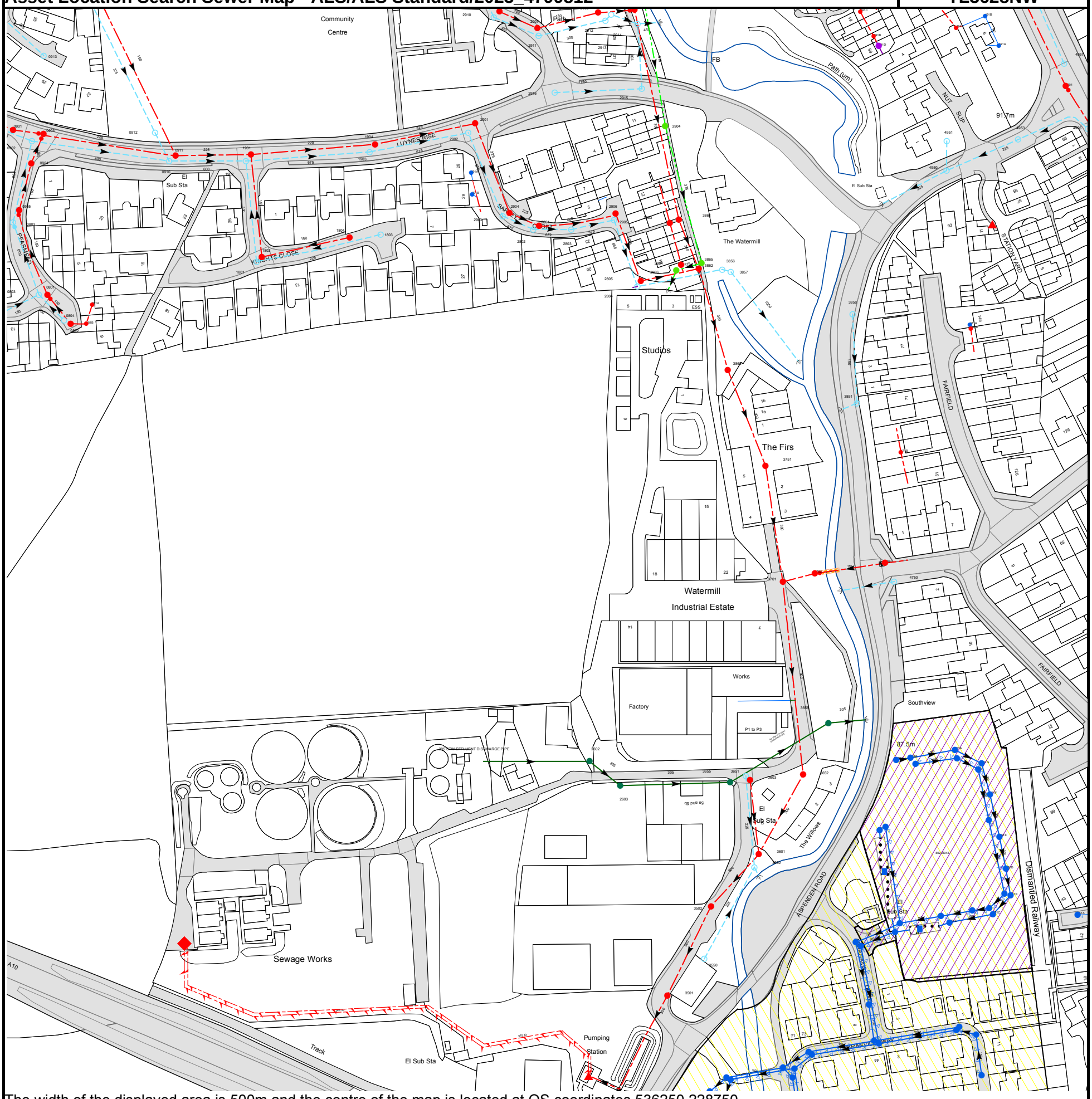
| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 07HC | n/a | n/a |
| 07ZJ | n/a | n/a |
| 07HD | n/a | n/a |
| 05NG | n/a | n/a |
| 05NH | n/a | n/a |
| 05ND | n/a | n/a |
| 06NP | n/a | n/a |
| 06NZ | n/a | n/a |
| 05NY | n/a | n/a |
| 06NY | n/a | n/a |
| 05NX | n/a | n/a |
| 05NW | n/a | n/a |
| 06NV | n/a | n/a |
| 06NB | n/a | n/a |
| 06ND | n/a | n/a |
| 06NC | n/a | n/a |
| 06NA | n/a | n/a |
| 06NE | n/a | n/a |
| 06NF | n/a | n/a |
| 06NP | n/a | n/a |
| 06NO | n/a | n/a |
| 06NQ | n/a | n/a |
| 06NN | n/a | n/a |
| 06NR | n/a | n/a |
| 06NS | n/a | n/a |
| 06NM | n/a | n/a |
| 06NL | n/a | n/a |
| 06NK | n/a | n/a |
| 2904 | 92.18 | 89.52 |
| 2956 | 92.15 | 90.4 |
| 2906 | n/a | n/a |
| 2905 | 91.92 | 89.32 |
| 2954 | 91.91 | 90.74 |
| 2955 | 91.79 | 89.99 |
| 2907 | 91.73 | 89.23 |
| 2908 | 91.75 | 89.95 |
| 2953 | 91.62 | 89.94 |
| 3906 | 91.65 | 88.95 |
| 3901 | n/a | n/a |
| 391D | n/a | n/a |
| 391A | n/a | n/a |
| 391F | n/a | n/a |
| 391B | n/a | n/a |
| 3950 | 91.62 | 90.52 |
| 3902 | 91.717 | 88.737 |
| 391C | n/a | n/a |
| 3951 | 91.81 | 89.11 |
| 391E | n/a | n/a |
| 3904 | 91.611 | 88.201 |
| 3952 | 91.74 | 89.34 |
| 1904 | 94.24 | 93.26 |
| 1952 | n/a | n/a |
| 1954 | 94.72 | 92.36 |
| 1905 | 94.72 | 91.72 |
| 1903 | n/a | n/a |
| 1953 | n/a | n/a |
| 1901 | n/a | n/a |
| 1902 | 93.41 | 90.61 |
| 2960 | 92.73 | 91.78 |
| 2901 | 92.86 | 90.44 |
| 2959 | 92.82 | 91.22 |
| 2903 | 92.12 | 90.3 |
| 2958 | 92.21 | 91.36 |
| 2957 | 92.34 | 90.64 |
| 2902 | 92.34 | 89.84 |
| 2952 | 92.23 | 90.48 |
| 2909 | 92.64 | 89.94 |
| 1803 | 96.04 | 94.54 |
| 1851 | 95.93 | 94.98 |
| 1852 | 95.56 | 94.11 |
| 1804 | 95.59 | 94.39 |
| 0953 | 98.28 | 97.05 |
| 0903 | 98.04 | 95.64 |
| 0904 | 97.65 | 95.15 |
| 0954 | 97.47 | 96.24 |
| 0907 | n/a | n/a |
| 0955 | n/a | n/a |
| 1959 | 96.59 | 94.24 |
| 1911 | 96.34 | 93.55 |
| 1910 | 95.95 | 93.24 |
| 1958 | 95.78 | 93.56 |
| 1909 | 95.48 | 92.68 |
| 091H | n/a | n/a |
| 0957 | 96.97 | n/a |
| 091G | n/a | n/a |
| 0905 | 97.3 | 96.59 |
| 0956 | 96.78 | 95.22 |
| 1955 | n/a | n/a |
| 0908 | n/a | n/a |
| 0906 | 96.87 | 95.98 |
| 1906 | n/a | n/a |
| 1915 | 95.54 | 94.42 |
| 1908 | 95.26 | 94.21 |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 1957 | 95.14 | 93.51 |
| 1907 | 94.67 | 93.99 |
| 1956 | 94.85 | 94.05 |
| 0802 | 98.63 | 96.834 |
| 08HK | n/a | n/a |
| 0801 | 98.63 | 96.878 |
| 08HL | n/a | n/a |
| 08HM | n/a | n/a |
| 08HD | n/a | n/a |
| 08HB | n/a | n/a |
| 0850 | 98.7 | 96.91 |
| 09HC | n/a | n/a |
| 09HA | n/a | n/a |
| 09ZB | n/a | n/a |
| 0901 | 98.64 | 97.64 |
| 50NA | n/a | n/a |
| 0950 | 98.81 | 97.56 |
| 0952 | 99.01 | 98.31 |
| 0951 | 98.83 | 97.63 |
| 0902 | 97.72 | 96.33 |
| 09HB | n/a | n/a |
| 181H | n/a | n/a |
| 181I | n/a | n/a |
| 1951 | 94.13 | 92.93 |
| 1914 | 94.74 | 93.57 |
| 1912 | 94.08 | 92.43 |
| 181B | n/a | n/a |
| 1950 | 94.45 | 93.4 |
| 181D | n/a | n/a |
| 1913 | 94.42 | 93.07 |
| 181A | n/a | n/a |
| 181C | n/a | n/a |
| 2852 | 94.11 | 92.71 |
| 2809 | 94.04 | 91.24 |
| 2851 | 94.04 | 91.54 |
| 2950 | 94.33 | 92.88 |
| 281E | n/a | n/a |
| 291D | n/a | n/a |
| 2853 | 93.31 | 91.51 |
| 2807 | 93.31 | 90.71 |
| 2806 | 93.52 | 90.92 |
| 2854 | 93.46 | 91.56 |
| 2951 | 92.57 | 90.87 |
| 2910 | 92.59 | 90.24 |
| 2805 | 93.73 | 90.99 |
| 2855 | 93.68 | 91.6 |
| 281A | n/a | n/a |
| 281B | n/a | n/a |
| 291A | n/a | n/a |
| 291C | n/a | n/a |
| 291B | n/a | n/a |
| 2752 | 94.26 | 93.2 |
| 1702 | 95.12 | 92.52 |
| 2753 | 93.85 | 93 |
| 2701 | n/a | n/a |
| 271I | n/a | n/a |
| 2755 | n/a | n/a |
| 1703 | 94.99 | 93.29 |
| 271J | n/a | n/a |
| 2702 | 94.23 | 92.33 |
| 2754 | n/a | n/a |
| 3703 | 92.04 | 91.39 |
| 2704 | 92.53 | 91.56 |
| 2703 | 93.53 | 92.11 |
| 2756 | 93.49 | 92.51 |
| 1706 | 95.14 | 93.48 |
| 1850 | 95.05 | 93.1 |
| 281D | n/a | n/a |
| 281C | n/a | n/a |
| 2801 | 92.7 | 91.92 |
| 181E | n/a | n/a |
| 2802 | 93.42 | 91.85 |
| 2850 | 94.05 | 92.11 |
| 2810 | 93.93 | 91.68 |
| 181E | n/a | n/a |
| 181F | n/a | n/a |
| 2804 | 93.28 | 91.53 |
| 08TD | n/a | n/a |
| 07HJ | n/a | n/a |
| 08TC | n/a | n/a |
| 07HK | n/a | n/a |
| 08TB | n/a | n/a |
| 07HI | n/a | n/a |
| 081A | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3628NW**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 536250,228750

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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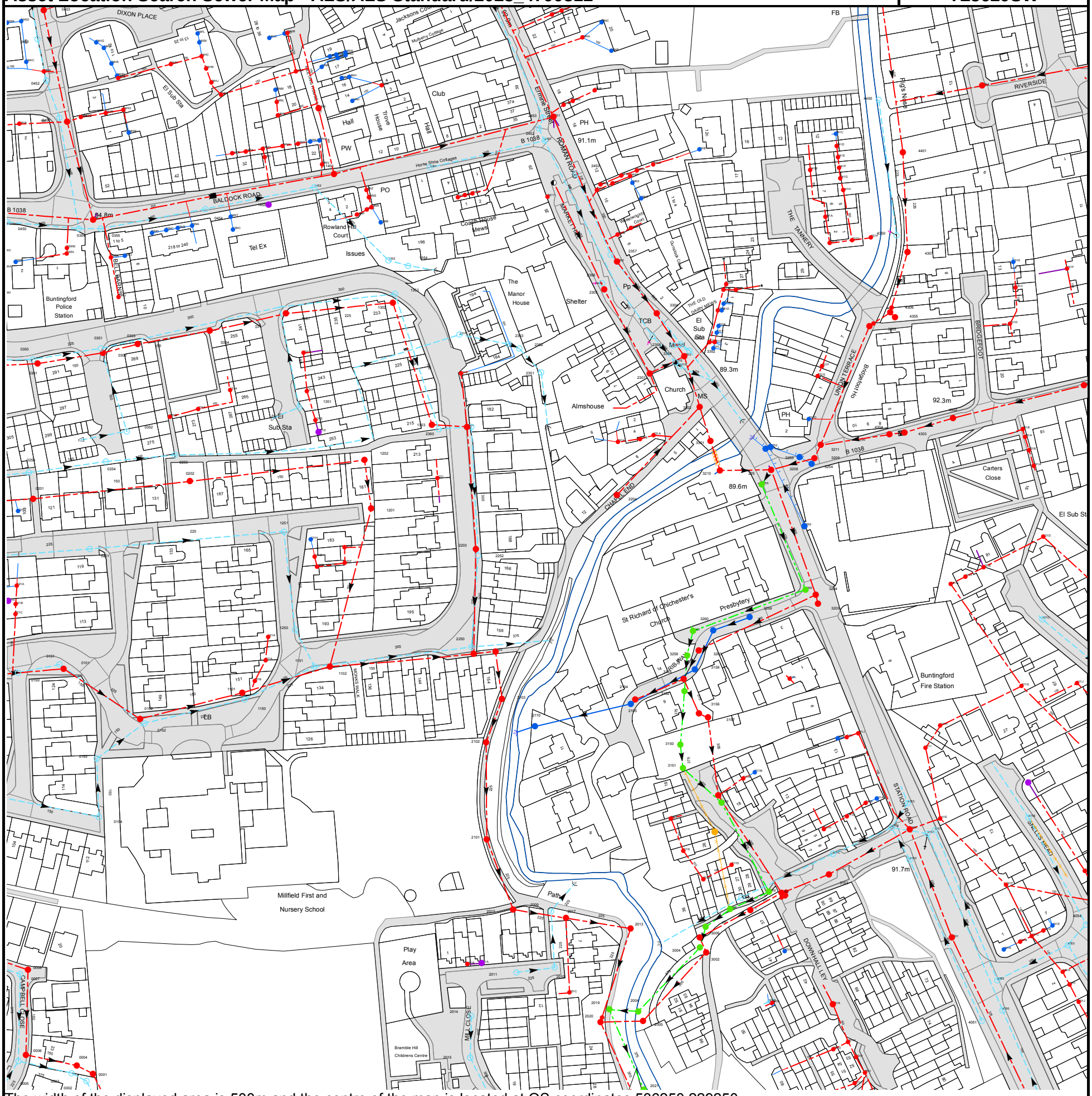
NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 491A | n/a | n/a |
| 4953 | 91.65 | 90.3 |
| 4957 | 92.91 | 91.93 |
| 4901 | 92.96 | 89.95 |
| 4956 | 93.2 | 92.2 |
| 1901 | 93.96 | 89.63 |
| 1903 | 92.1 | 89.17 |
| 1904 | 92.03 | 88.66 |
| 2902 | 90.82 | 88.3 |
| 2901 | 90.83 | 87.8 |
| 2916 | n/a | n/a |
| 2911 | 90.07 | 88.49 |
| 2907 | 90.14 | 88.14 |
| 2912 | 89.47 | 87.66 |
| 2910 | 90.44 | 88.73 |
| 2913 | 89.41 | 87.58 |
| 2909 | 89.49 | 87.42 |
| 2908 | 90.39 | 88.44 |
| 0901 | 99.41 | 95.35 |
| 0904 | 98.48 | 94.69 |
| 0902 | 98.69 | 95.12 |
| 0903 | 98.65 | 94.64 |
| 0913 | 98.12 | 96.48 |
| 0912 | 96.32 | 93.57 |
| 0910 | 95.92 | 93.05 |
| 0911 | 95.91 | 92.5 |
| 1902 | 94.02 | 90.09 |
| 2917 | 89.52 | 84.97 |
| 2914 | 89.51 | 87.36 |
| 2915 | 88.32 | 86.94 |
| 3904 | 88.301 | 86.851 |
| 391A | n/a | n/a |
| 391C | n/a | n/a |
| 391B | n/a | n/a |
| 491D | n/a | n/a |
| 4950 | 90.61 | 89.31 |
| 4951 | 91.01 | 90.17 |
| 491C | n/a | n/a |
| 491B | n/a | n/a |
| 3701 | 86.04 | 84.15 |
| 4750 | 87.71 | 86.54 |
| 3702 | 86.68 | 84.68 |
| 4701 | 87.53 | 86.26 |
| 3751 | n/a | n/a |
| 471B | n/a | n/a |
| 3851 | 87.52 | 86.83 |
| 3860 | n/a | n/a |
| 481B | n/a | n/a |
| 481A | n/a | n/a |
| 3850 | 88.26 | 87.52 |
| 3857 | 86.5 | 84.16 |
| 3866 | n/a | n/a |
| 3856 | 86.5 | 84.93 |
| 3862 | 88.01 | 85.11 |
| 3864 | n/a | n/a |
| 3865 | 87.5 | 86.64 |
| 3861 | 87.7 | 84.6 |
| 0803 | 98.85 | 95.3 |
| 0905 | 98.89 | 94.89 |
| 0803 | 98.85 | 95.3 |
| 0801 | 97.97 | 95.15 |
| 0804 | 97.48 | 95.52 |
| 0802 | 97.36 | 95.26 |
| 081B | n/a | n/a |
| 081A | n/a | n/a |
| 1801 | 94.32 | 90.69 |
| 1802 | 94.2 | 89.95 |
| 1804 | 92.75 | 90.52 |
| 1803 | 92.15 | 90.98 |
| 291A | n/a | n/a |
| 291B | n/a | n/a |
| 2903 | 89.82 | 87.62 |
| 2904 | 89.73 | 87.02 |
| 2802 | 89.28 | 87.18 |
| 2801 | 89.23 | 86.66 |
| 2803 | 89.02 | 87.02 |
| 2602 | n/a | n/a |
| 2905 | 88.33 | 86.44 |
| 2906 | 88.34 | 86.09 |
| 2603 | n/a | n/a |
| 2804 | 87.961 | 85.751 |
| 2805 | 88.01 | 85.41 |
| 3863 | n/a | n/a |
| 461D | n/a | n/a |
| 3650 | 85.85 | 83.85 |
| 3601 | 85.88 | 83.73 |
| 461E | n/a | n/a |
| 461H | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 461F | n/a | n/a |
| 3655 | n/a | n/a |
| 3603 | 85.99 | 84.56 |
| 3651 | 86.27 | 84.44 |
| 3652 | 85.57 | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| 461G | n/a | n/a |
| 461C | n/a | n/a |
| n/a | n/a | n/a |
| 461B | n/a | n/a |
| 461A | n/a | n/a |
| 3656 | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| 451E | n/a | n/a |
| n/a | n/a | n/a |
| 451A | 94.12 | 93.12 |
| 451C | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| 451B | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a | n/a | n/a |
| n/a

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3629SW**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 536250,229250

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 341D | n/a | n/a |
| 341E | n/a | n/a |
| 341F | n/a | n/a |
| 341G | n/a | n/a |
| 341H | n/a | n/a |
| 331Q | n/a | n/a |
| 3305 | 90.18 | 87.37 |
| 331P | n/a | n/a |
| 4450 | 89.52 | 88.05 |
| 4304 | 90.18 | 88.63 |
| 4306 | 91.32 | 87.51 |
| 4305 | 91.32 | 89.22 |
| 4350 | 89.89 | 87.91 |
| 4401 | 90.13 | 87.88 |
| 4303 | 90.43 | 88.85 |
| 4307 | 91.18 | 87.65 |
| 4302 | 91.34 | 89.59 |
| 441A | n/a | n/a |
| 431D | n/a | n/a |
| 431E | n/a | n/a |
| 431C | n/a | n/a |
| 431B | n/a | n/a |
| 431A | n/a | n/a |
| 431F | n/a | n/a |
| 4301 | 94.01 | 91.18 |
| 3252 | 89.856 | 87.836 |
| 3211 | 89.282 | 87.182 |
| 3301 | 88.6 | 87.57 |
| 331O | n/a | n/a |
| 3302 | 89.32 | 87.72 |
| 331G | n/a | n/a |
| 331R | n/a | n/a |
| 331F | n/a | n/a |
| 331S | n/a | n/a |
| 3303 | 89.27 | 87.83 |
| 3352 | 89.2 | 88.29 |
| 331L | n/a | n/a |
| 3354 | 89.32 | 88.48 |
| 3353 | 89.24 | 88.39 |
| 331E | n/a | n/a |
| 331A | n/a | n/a |
| 331I | n/a | n/a |
| 331K | n/a | n/a |
| 3359 | n/a | n/a |
| 331D | n/a | n/a |
| 331J | n/a | n/a |
| 331M | n/a | n/a |
| 331N | n/a | n/a |
| 3358 | n/a | n/a |
| 331H | n/a | n/a |
| 341A | n/a | n/a |
| 341B | n/a | n/a |
| 34HE | n/a | n/a |
| 341C | n/a | n/a |
| 2204 | 88.98 | 88.1 |
| 221A | n/a | n/a |
| 221B | n/a | n/a |
| 231A | n/a | n/a |
| 2301 | 90.11 | 88.04 |
| 2358 | 89.44 | 88.54 |
| 3304 | 89.38 | 87.96 |
| 2303 | 90.52 | 88.4 |
| 2356 | 90.52 | 89.93 |
| 2302 | 89.99 | 88.25 |
| 2357 | 89.99 | 89.08 |
| 231D | n/a | n/a |
| 231C | n/a | n/a |
| 24HF | n/a | n/a |
| 24HB | n/a | n/a |
| 24HD | n/a | n/a |
| 24HI | n/a | n/a |
| 2402 | n/a | n/a |
| 24HH | n/a | n/a |
| 24HC | n/a | n/a |
| 2450 | 90.91 | 90 |
| 24HA | n/a | n/a |
| 34HZ | n/a | n/a |
| 24NF | n/a | n/a |
| 24NB | n/a | n/a |
| 24NA | n/a | n/a |
| 24NC | n/a | n/a |
| 241X | n/a | n/a |
| 1401 | 93.64 | 91.99 |
| 14NB | n/a | n/a |
| 14NE | n/a | n/a |
| 14NG | n/a | n/a |
| 14NA | n/a | n/a |
| 14ND | n/a | n/a |
| 14NH | n/a | n/a |
| 14NJ | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 14NP | n/a | n/a |
| 14NZ | n/a | n/a |
| 14NQ | n/a | n/a |
| 14NS | n/a | n/a |
| 14NR | n/a | n/a |
| 14NI | n/a | n/a |
| 1451 | 92.76 | 91.81 |
| 14TA | n/a | n/a |
| 14TB | n/a | n/a |
| 14TC | n/a | n/a |
| 2452 | 91.36 | 90.33 |
| 2453 | n/a | n/a |
| 2451 | 91.26 | 90.46 |
| 241Y | n/a | n/a |
| 2403 | n/a | n/a |
| 2401 | 91.26 | 89.131 |
| 24ND | n/a | n/a |
| 24NH | n/a | n/a |
| 24NG | n/a | n/a |
| 1102 | 93.06 | 91.24 |
| 2201 | 91.52 | 89.57 |
| 2202 | 91.27 | 89.34 |
| 2250 | 91.49 | 89.07 |
| 121E | n/a | n/a |
| 121F | n/a | n/a |
| 121D | n/a | n/a |
| 2252 | 91.46 | 89.88 |
| 2203 | 91.45 | 90.07 |
| 121G | n/a | n/a |
| 1201 | n/a | n/a |
| 121I | n/a | n/a |
| 1202 | n/a | n/a |
| 131D | n/a | n/a |
| 2360 | 92.64 | 90.64 |
| 2359 | 92.35 | 90.37 |
| 2304 | 92.36 | 90.78 |
| 1303 | 92.49 | 90.97 |
| 131E | n/a | n/a |
| 231E | n/a | n/a |
| 2351 | 91.3 | 89.59 |
| 2352 | 91.96 | 89.82 |
| 2353 | 92.18 | 90.01 |
| 231F | n/a | n/a |
| 1302 | 93.34 | 91.92 |
| 1353 | 93.33 | 91.37 |
| 1354 | 93.43 | 90.96 |
| 1355 | 93.69 | 92.14 |
| 13NB | n/a | n/a |
| 04HC | n/a | n/a |
| 0454 | n/a | n/a |
| 04HK | n/a | n/a |
| 04HJ | n/a | n/a |
| 04HI | n/a | n/a |
| 14NT | n/a | n/a |
| 14ZB | n/a | n/a |
| 14ZA | n/a | n/a |
| 14NO | n/a | n/a |
| 142I | n/a | n/a |
| 1450 | n/a | 94.04 |
| 14HC | n/a | n/a |
| 14NM | n/a | n/a |
| 14NL | n/a | n/a |
| 14NN | n/a | n/a |
| 14NY | n/a | n/a |
| 14HD | n/a | n/a |
| 14HB | n/a | n/a |
| 14HA | n/a | n/a |
| 14NX | n/a | n/a |
| 14NU | n/a | n/a |
| 1452 | n/a | n/a |
| 14NK | n/a | n/a |
| 14NW | n/a | n/a |
| 14NF | n/a | n/a |
| 14NV | n/a | n/a |
| 14NC | n/a | n/a |
| 04WA | n/a | n/a |
| 0450 | 96.42 | 95.37 |
| 04HA | n/a | n/a |
| 04WD | n/a | n/a |
| 04WC | n/a | n/a |
| 0453 | 97.6 | 96.1 |
| 0403 | 98.01 | 96.38 |
| 0404 | 96.92 | 96.2 |
| 0452 | 96.84 | 95.64 |
| 0451 | 95.99 | 95.01 |
| 0402 | 95.94 | 94.46 |
| 04HL | n/a | n/a |
| 0401 | 95.1 | 93.673 |
| 04HG | n/a | n/a |
| 04HF | n/a | n/a |
| 04HN | n/a | n/a |
| 04HE | n/a | n/a |
| 04HD | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 04HB | n/a | n/a |
| 04HO | n/a | n/a |
| 04HM | n/a | n/a |
| 04HH | n/a | n/a |
| 04PL | n/a | n/a |
| 04XM | n/a | n/a |
| 03WK | n/a | n/a |
| 0350 | 97.06 | 94.47 |
| 0301 | 97.07 | 95.46 |
| 03WL | n/a | n/a |
| 03WM | n/a | n/a |
| 0354 | 95.27 | 94.53 |
| 0351 | 96.33 | 94.14 |
| 0355 | n/a | n/a |
| 0302 | 96.33 | 94.63 |
| 03WA | n/a | n/a |
| 03WJ | n/a | n/a |
| 03JJ | n/a | n/a |
| 0303 | 96.05 | 94.22 |
| 03ND | n/a | n/a |
| 03NC | n/a | n/a |
| 0255 | n/a | n/a |
| 03NB | n/a | n/a |
| 03NA | n/a | n/a |
| 0304 | 95.41 | 93.27 |
| 131A | n/a | n/a |
| 13NC | n/a | n/a |
| 1301 | 94.64 | 92.82 |
| 131G | n/a | n/a |
| 131F | n/a | n/a |
| 111B | n/a | n/a |
| 0150 | 97.34 | 95.19 |
| 0101 | 96.7 | 94.97 |
| 1151 | 93.35 | 91.03 |
| 0151 | 96.71 | 94.59 |
| 111A | n/a | n/a |
| 121A | n/a | n/a |
| 1250 | 93.64 | 91.54 |
| 021C | n/a | n/a |
| 021B | n/a | n/a |
| 021E | n/a | n/a |
| 021A | n/a | n/a |
| 0251 | 96.21 | 94.61 |
| 121H | n/a | n/a |
| 1251 | 93.73 | 91.94 |
| 021D | n/a | n/a |
| 0201 | 96.82 | 95.07 |
| 0202 | 95.15 | 93.46 |
| 0250 | 96.55 | 95.8 |
| 0254 | n/a | n/a |
| 0352 | 95.66 | 94.94 |
| 031B | n/a | n/a |
| 031A | n/a | n/a |
| 1351 | 94.41 | 92.7 |
| 3155 | 88.84 | 86.54 |
| 3258 | 88.05 | 87.17 |
| 3257 | 88.975 | 87.175 |
| 3158 | 88.92 | 87.63 |
| 3203 | 88.03 | 86.73 |
| 3260 | 89.18 | 87.72 |
| 3210 | 89.01 | 87.5 |
| 3259 | 89.45 | 88.02 |
| 3255 | 89.86 | 87.46 |
| 3251 | 89.778 | 87.728 |
| 3208 | 89.823 | 86.973 |
| 311L | n/a | n/a |
| 3253 | 89.32 | 88.41 |
| 3250 | 89.732 | 88.282 |
| 3256 | 89.85 | 87.54 |
| 3254 | 89.23 | 88.7 |
| 3209 | 89.3 | 87.18 |
| 3204 | 89.95 | 86.86 |
| 3205 | 90 | 88.96 |
| 421G | n/a | n/a |
| 421F | n/a | n/a |
| 421E | n/a | n/a |
| 421B | n/a | n/a |
| 421A | n/a | n/a |
| 421C | 94.571 | 93.561 |
| 421D | n/a | n/a |
| 411J | n/a | n/a |
| 2105 | 88.43 | 87.18 |
| 2104 | 88.48 | 86.85 |
| 311F | n/a | n/a |
| 3150 | 87.81 | 87.05 |
| 3151 | 89.62 | 87.06 |
| 311E | n/a | n/a |
| 3152 | n/a | n/a |
| 3156 | 88.1 | 86.32 |
| 301K | n/a | n/a |
| 3006 | n/a | n/a |
| 3157 | 88.5 | 86.78 |
| 3163 | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 3159 | 89.941 | 86.371 |
| 3007 | n/a | n/a |
| 311D | n/a | n/a |
| 3010 | n/a | n/a |
| 311N | n/a | n/a |
| 301L | n/a | n/a |
| 311M | n/a | n/a |
| 3008 | 90.312 | 86.442 |
| 3003 | 90.642 | 85.542 |
| 311H | n/a | n/a |
| 3153 | 90.85 | 86.89 |
| 311C | n/a | n/a |
| 311K | n/a | n/a |
| 311I | n/a | n/a |
| 311G | n/a | n/a |
| 311J | n/a | n/a |
| 311B | n/a | n/a |
| 311A | n/a | n/a |
| 411D | n/a | n/a |
| 4153 | 91.7 | 90.91 |
| 4150 | 92.01 | 91.41 |
| 4101 | 91.85 | 88.27 |
| 411I | n/a | n/a |
| 4152 | 92.16 | 91.06 |
| 4151 | 92.41 | 90.61 |
| 411H | n/a | n/a |
| 411E | n/a | n/a |
| 401F | n/a | n/a |
| 411G | n/a | n/a |
| 411F | n/a | n/a |
| 411B | n/a | n/a |
| 401D | n/a | n/a |
| 401E | 93.493 | 92.653 |
| 411C | n/a | n/a |
| 4054 | 93.61 | 91.58 |
| 401G | n/a | n/a |
| 4052 | 92.17 | 91.5 |
| 4050 | 92.34 | 91.3 |
| 401A | n/a | n/a |
| 401B | n/a | n/a |
| 401C | 93.284 | 92.034 |
| 401H | n/a | n/a |
| 4053 | 93.14 | 91.54 |
| 401I | n/a | n/a |
| 401J | n/a | n/a |
| 2015 | 90.69 | 89.01 |
| 2020 | 89.12 | 85.16 |
| 2014 | 90.81 | 89.18 |
| 2019 | 89.01 | 87.11 |
| 201C | n/a | n/a |
| 2011 | 90.5 | 88.9 |
| 2010 | 90.08 | 88.29 |
| 201B | n/a | n/a |
| 201A | n/a | n/a |
| 2013 | 88.39 | 86.73 |
| 2017 | n/a | n/a |
| 2009 | 90.22 | 87.46 |
| 2012 | 90.89 | 87.89 |
| 2101 | n/a | n/a |
| 2102 | n/a | n/a |
| 2110 | 88.13 | 87.1 |
| 2103 | 91.42 | 89.18 |
| 0005 | 98.66 | 95.83 |
| 0007 | 98.07 | 96.75 |
| 0006 | 98.58 | 95.18 |
| 0008 | 97.93 | 96.02 |
| 0003 | 97.59 | 95.48 |
| 0004 | 97.59 | 94.95 |
| 0002 | 97.05 | 95.45 |
| 0001 | 97.28 | 94.89 |
| 0153 | 96.29 | 94.62 |
| 0154 | 96.62 | 95.25 |
| 0102 | 95.79 | 93.93 |
| 0152 | 95.7 | 93.29 |
| 1101 | n/a | n/a |
| 1150 | 94.28 | 91.98 |
| 2004 | 88.12 | 87.22 |
| 2005 | 87.81 | 85.29 |
| 2021 | n/a | n/a |
| 3005 | 90.25 | 86.65 |
| 3004 | 88.91 | 86 |
| 3002 | n/a | n/a |
| 301O | n/a | n/a |
| 301N | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3529SE**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535750,229250

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 94WB | n/a | n/a |
| 94HA | n/a | n/a |
| 94WG | n/a | n/a |
| 93WB | n/a | n/a |
| 93WA | n/a | n/a |
| 93WC | n/a | n/a |
| 50WI | n/a | n/a |
| 9101 | 98.42 | 96.62 |
| 9256 | 97.96 | 96.88 |
| 9152 | n/a | n/a |
| 94HK | n/a | n/a |
| 94HH | n/a | n/a |
| 94HI | n/a | n/a |
| 94HJ | n/a | n/a |
| 94HG | n/a | n/a |
| 84HD | n/a | n/a |
| 8407 | n/a | n/a |
| 8401 | 100.82 | 99.32 |
| 84HC | n/a | n/a |
| 7452 | 102.15 | 100.6 |
| 7407 | n/a | n/a |
| 7404 | 102.45 | 100.3 |
| 84NB | n/a | n/a |
| 7403 | 103.89 | 102.13 |
| 7451 | 102.94 | 101.81 |
| 84NC | n/a | n/a |
| 74HE | n/a | n/a |
| 84AA | n/a | n/a |
| 84ND | n/a | n/a |
| 74NB | n/a | n/a |
| 74NC | n/a | n/a |
| 74ND | n/a | n/a |
| 84NE | n/a | n/a |
| 74NA | n/a | n/a |
| 74HG | n/a | n/a |
| 74NE | n/a | n/a |
| 84NF | n/a | n/a |
| 74NF | n/a | n/a |
| 84NG | n/a | n/a |
| 84NH | n/a | n/a |
| 84NI | n/a | n/a |
| 64ND | n/a | n/a |
| 64NE | n/a | n/a |
| 6455 | n/a | n/a |
| 6401 | n/a | n/a |
| 64NF | n/a | n/a |
| 6402 | n/a | n/a |
| 6454 | n/a | n/a |
| 64NJ | n/a | n/a |
| 7455 | n/a | n/a |
| 7405 | n/a | n/a |
| 64NI | n/a | n/a |
| 64NH | n/a | n/a |
| 7456 | 104.585 | 102.885 |
| 7450 | n/a | n/a |
| 641A | n/a | n/a |
| 6452 | 105.85 | 104.55 |
| 7402 | 105.12 | 103.42 |
| 74HA | n/a | n/a |
| 74HD | n/a | n/a |
| 74HF | n/a | n/a |
| 74HC | n/a | n/a |
| 6453 | 106.11 | 104.41 |
| 74HB | n/a | n/a |
| 64NA | n/a | n/a |
| 64NB | n/a | n/a |
| 64NC | n/a | n/a |
| 7406 | n/a | n/a |
| 7453 | 102.05 | 100.58 |
| 74NG | n/a | n/a |
| 74NH | n/a | n/a |
| 74NI | n/a | n/a |
| 7401 | 101.51 | 100.61 |
| 7454 | 101.29 | 99.79 |
| 741A | n/a | n/a |
| 731A | n/a | n/a |
| 8450 | n/a | 100.25 |
| 841C | n/a | n/a |
| 841D | n/a | n/a |
| 84NK | n/a | n/a |
| 84NL | n/a | n/a |
| 8406 | 101.06 | 100.06 |
| 84NM | n/a | n/a |
| 84NN | n/a | n/a |
| 84NO | n/a | n/a |
| 8451 | 100.74 | 99.19 |
| 84NP | n/a | n/a |
| 8402 | 100.48 | 98.88 |
| 84HB | n/a | n/a |
| 84NR | n/a | n/a |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 83NB | n/a | n/a |
| 841B | n/a | n/a |
| 842B | n/a | n/a |
| 8452 | 99.9 | 98.75 |
| 8403 | 99.82 | 98.22 |
| 93NJ | n/a | n/a |
| 8351 | n/a | n/a |
| 9350 | n/a | n/a |
| 93NF | n/a | n/a |
| 9351 | 97.3 | 95.95 |
| 83NG | n/a | n/a |
| 93NK | n/a | n/a |
| 93NC | n/a | n/a |
| 94ND | n/a | n/a |
| 84ZF | n/a | n/a |
| 94NE | n/a | n/a |
| 941D | n/a | n/a |
| 94WD | n/a | n/a |
| 94NC | n/a | n/a |
| 94NB | n/a | n/a |
| 94NA | n/a | n/a |
| 84NA | n/a | n/a |
| 94HB | n/a | n/a |
| 94HD | n/a | n/a |
| 94HC | n/a | n/a |
| 941C | n/a | n/a |
| 94HE | n/a | n/a |
| 94HF | n/a | n/a |
| 941A | n/a | n/a |
| 941B | n/a | n/a |
| 84HA | n/a | n/a |
| 94HL | n/a | n/a |
| 73NE | n/a | n/a |
| 73NF | n/a | n/a |
| 73NK | n/a | n/a |
| 73ND | n/a | n/a |
| 73NJ | n/a | n/a |
| 73NI | n/a | n/a |
| 73NC | n/a | n/a |
| 73NB | n/a | n/a |
| 73NH | n/a | n/a |
| 73NA | n/a | n/a |
| 73NG | n/a | n/a |
| 83NP | n/a | n/a |
| 83NQ | n/a | n/a |
| 83NR | n/a | n/a |
| 83NM | n/a | n/a |
| 83NO | n/a | n/a |
| 83NL | n/a | n/a |
| 83NA | n/a | n/a |
| 83NC | n/a | n/a |
| 83ND | n/a | n/a |
| 831A | n/a | n/a |
| 831B | n/a | n/a |
| 8350 | n/a | n/a |
| 83NE | n/a | n/a |
| 93NH | n/a | n/a |
| 93NA | n/a | n/a |
| 93NB | n/a | n/a |
| 73NL | n/a | n/a |
| 73NM | n/a | n/a |
| 731B | n/a | n/a |
| 821A | n/a | n/a |
| 821E | n/a | n/a |
| 821D | n/a | n/a |
| 821C | n/a | n/a |
| 821B | n/a | n/a |
| 83NS | n/a | n/a |
| 8250 | 101.32 | 100.62 |
| 8251 | n/a | n/a |
| 8201 | 100.88 | 99.03 |
| 931A | n/a | n/a |
| 931B | n/a | n/a |
| 921A | n/a | n/a |
| 921C | n/a | n/a |
| 921B | n/a | n/a |
| 9250 | 100.51 | 98.46 |
| 9255 | 100.11 | 99.41 |
| 9353 | 99.69 | 98.29 |
| 9254 | 99.9 | 98.9 |
| 9301 | 99.69 | 98.49 |
| 9253 | 99.83 | 98.73 |
| 9201 | n/a | n/a |
| 9252 | 99.38 | 97.73 |
| 931Q | n/a | n/a |
| 931P | n/a | n/a |
| 9352 | 98.13 | 96.73 |
| 9302 | 98.12 | 96.92 |
| 9002 | 103.73 | 102.65 |
| 9007 | 101.75 | 100.45 |
| 8004 | 105.62 | 101.14 |
| 9006 | 100.45 | 99.3 |
| 8005 | 105.67 | 101.67 |

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 9004 | 99.64 | 98.16 |
| 9003 | 99.17 | 98.16 |
| 9005 | 99.49 | 98.44 |
| 9001 | 103.48 | 102.33 |
| 8003 | 104.45 | 101.37 |
| 8001 | 104.57 | 101.98 |
| 8002 | 106.14 | 103.82 |
| 8151 | 106.93 | 105.84 |
| 9151 | 100.81 | 99.81 |
| 8150 | 103.67 | 101.57 |
| 8102 | n/a | n/a |
| 8101 | 104.49 | 102.69 |
| 9150 | 100.25 | 98.5 |
| 921D | n/a | n/a |
| 921F | n/a | n/a |
| 8253 | 104.35 | 103 |
| 821H | n/a | n/a |
| 8252 | 104.16 | 103.26 |
| 821G | n/a | n/a |
| 921E | n/a | n/a |
| 821F | n/a | n/a |
| 9251 | 99.15 | 97.3 |
| 541C | 111.25 | 109.58 |
| 541B | 111 | 109.05 |
| 541A | 110.85 | 108.79 |
| 5353 | n/a | n/a |
| 5358 | 111.273 | 108.153 |
| 5358 | n/a | n/a |
| 54NC | n/a | n/a |
| 5301 | n/a | n/a |
| 54ND | n/a | n/a |
| 54NA | n/a | n/a |
| 53NB | n/a | n/a |
| 54NE | n/a | n/a |
| 54NH | n/a | n/a |
| 54NG | n/a | n/a |
| 5356 | 110.36 | 107.38 |
| 5302 | 110.27 | 107.54 |
| 54NF | n/a | n/a |
| 54NJ | n/a | n/a |
| 54NI | n/a | n/a |
| 53NA | n/a | n/a |
| 54NL | n/a | n/a |
| 63NA | n/a | n/a |
| 6451 | 107.23 | 105.88 |
| 8006 | 105.8 | 101.45 |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3530SE**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535750,230250

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

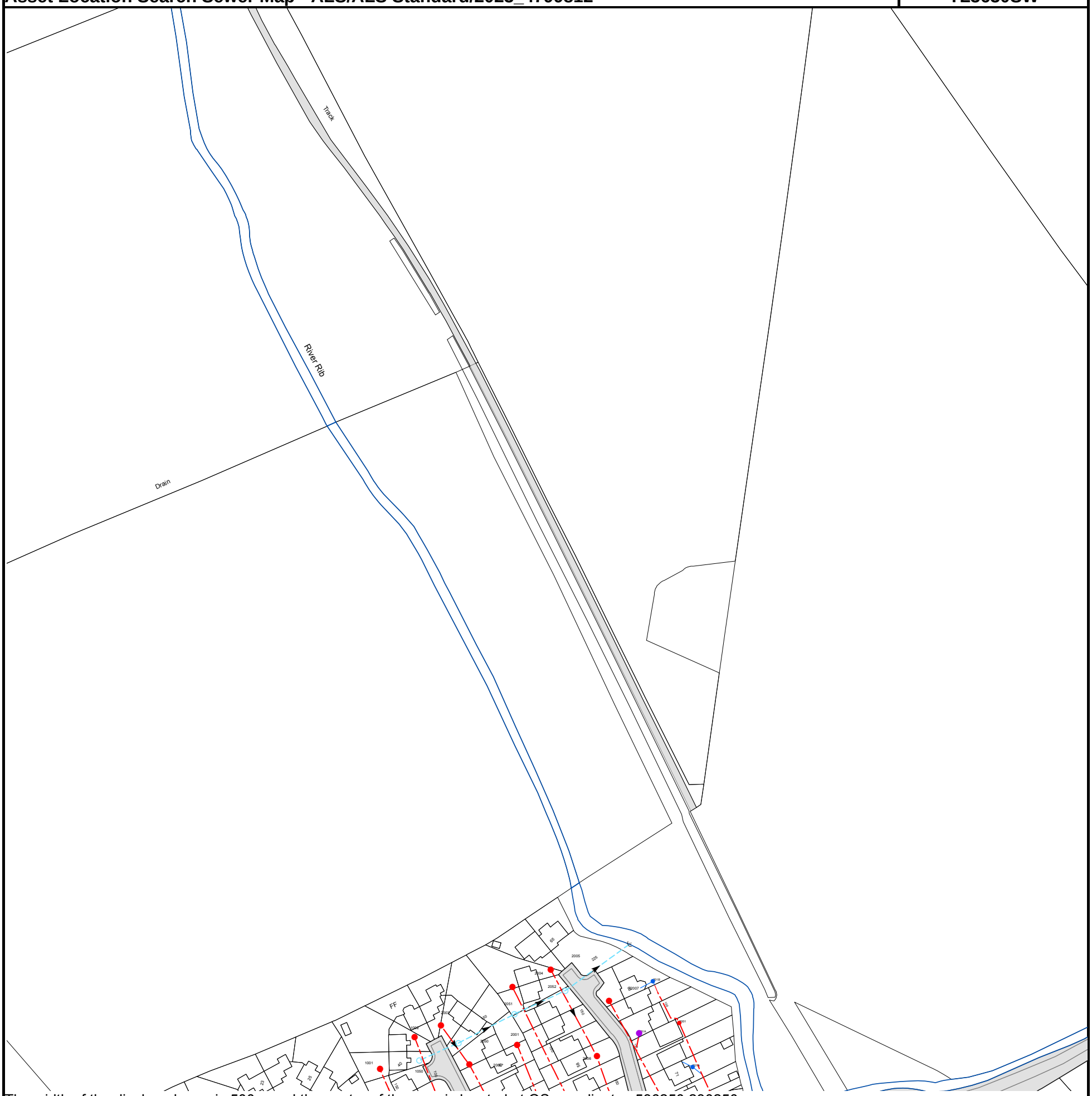
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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 90TA | n/a | n/a |
| 9101 | 99.42 | 97.587 |
| 91NA | n/a | n/a |
| 9001 | 99.29 | 97.4 |
| 90NE | n/a | n/a |
| 90NE | n/a | n/a |
| 60NA | n/a | n/a |
| 70NF | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

| Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812 | TL3630SW |
|---|---|




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 536250,230250

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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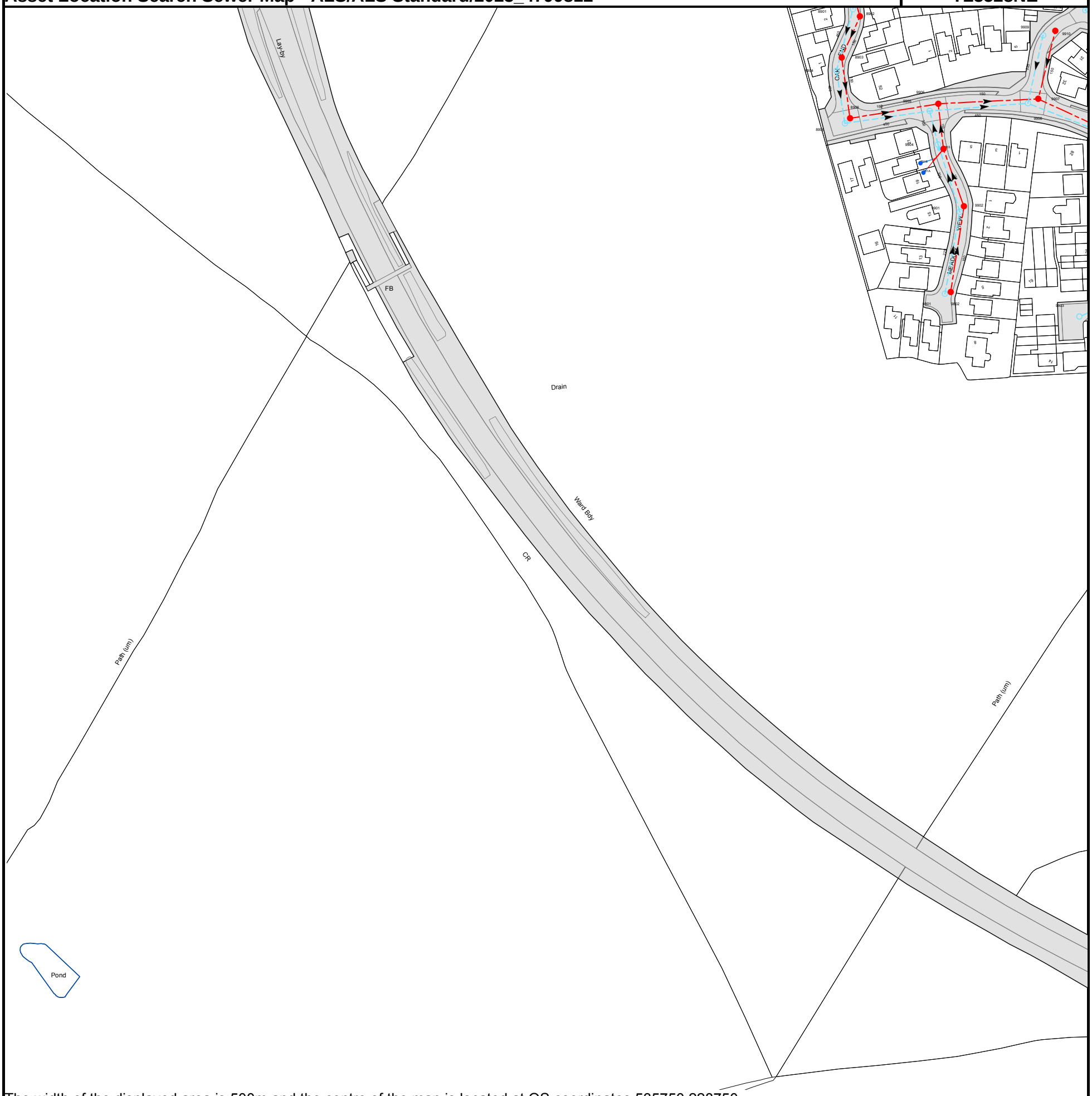
NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 201B | n/a | n/a |
| 2005 | 91.58 | 90.72 |
| 2006 | n/a | n/a |
| 2007 | 91.48 | 90.38 |
| 201A | n/a | n/a |
| 3001 | n/a | n/a |
| 301A | n/a | n/a |
| 1001 | 92.94 | 91.71 |
| 1002 | 92.42 | 91.8 |
| 1050 | 92.22 | 91.24 |
| 2003 | 91.98 | 90.8 |
| 2050 | 92 | 90.54 |
| 2002 | n/a | n/a |
| 2004 | 91.91 | 90.71 |
| 2051 | n/a | n/a |
| 2001 | n/a | n/a |
| 2052 | 91.36 | 89.86 |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812

**TL3528NE**




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535750,228750

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 9909 | 100.16 | 97.88 |
| 9910 | 100.06 | 97.16 |
| 9912 | 99.24 | 96.2 |
| 9803 | 98.43 | 97.07 |
| 9801 | 101.41 | 100.02 |
| 9802 | 101.37 | 99.74 |
| 9901 | 101.97 | 99.68 |
| 9902 | 101.98 | 99.31 |
| 991A | n/a | n/a |
| 991B | n/a | n/a |
| 9903 | 102.9 | 98.9 |
| 9904 | 102.97 | 99.47 |
| 8905 | 104.93 | 100.85 |
| 8906 | 104.81 | 100.47 |
| 9905 | 102.98 | 99.05 |
| 9906 | 102.82 | 98.59 |
| 9908 | 100.92 | 97.24 |
| 9907 | 100.74 | 96.63 |
| 8904 | 105.47 | 101.07 |
| 8903 | 105.51 | 100.67 |
| 8902 | 105.64 | 100.77 |
| 8901 | 105.7 | 101.19 |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

| Asset Location Search Sewer Map - ALS/ALS Standard/2023_4799812 | TL3529NW |
|---|---|




The width of the displayed area is 500m and the centre of the map is located at OS coordinates 535250,229750

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

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NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

| Manhole Reference | Manhole Cover Level | Manhole Invert Level |
|---|---|---|
| 351B | n/a | n/a |
| 351C | n/a | n/a |
| 35NA | n/a | n/a |
| 46NA | n/a | n/a |
| 45NA | n/a | n/a |
| 45NB | n/a | n/a |
| 45NC | n/a | n/a |
| 45NE | n/a | n/a |
| 45ND | n/a | n/a |
| 45NG | n/a | n/a |
| 46NB | n/a | n/a |
| 45NF | n/a | n/a |

**The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.**

# Asset Location Search - Sewer Key

## Public Sewer Types (Operated and maintained by Thames Water)

**Foul Sewer:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

**Surface Water Sewer:** A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

**Combined Sewer:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

- Storm Sewer
- Sludge Sewer
- Foul Trunk Sewer
- Surface Trunk Sewer
- Combined Trunk Sewer
- Foul Rising Main
- Surface Water Rising Main
- Combined Rising Main
- Vacuum
- Thames Water Proposed
- Vent Pipe
- Gallery

## Other Sewer Types (Not operated and maintained by Thames Water)

- Sewer
- Culverted Watercourse
- Proposed
- Decommissioned Sewer
- Content of this drainage network is currently unknown
- Ownership of this drainage network is currently unknown

## Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

- Air Valve
- Meter
- Dam Chase
- Vent
- Fitting

## Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

- Ancillary
- Drop Pipe
- Control Valve
- Weir

## End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

- Inlet
- Outfall
- Undefined End

## Other Symbols

Symbols used on maps which do not fall under other general categories.

- Change of Characteristic Indicator
- Public / Private Pumping Station
- Invert Level
- Summit

## Areas

Lines denoting areas of underground surveys, etc.

- Agreement
- Chamber
- Operational Site

## Ducts or Crossings

- Casement

Ducts may contain high voltage cables. Please check with Thames Water.

- Conduit Bridge
- Subway
- Tunnel

**Notes:**

1) All levels associated with the plans are to Ordnance Datum Newlyn.
2) All measurements on the plan are metric.
3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
5) 'na' or '0' on a manhole indicates that data is unavailable.
6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology, please contact Property Searches on 0800 009 4540.

## Payment Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment within 14 days of the date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service or will be held to be invalid.
4. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
5. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
6. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800.

If you are unhappy with our service, you can speak to your original goods or customer service provider. If you are still not satisfied with the outcome provided, we will refer the matter to a Senior Manager for resolution who will provide you with a response.

If you are still dissatisfied with our final response, and in certain circumstances such as you are buying a residential property or commercial property within certain parameters, The Property Ombudsman will investigate your case and give an independent view. The Ombudsman can award compensation of up to £25,000 to you if he finds that you have suffered actual financial loss and/or aggravation, distress, or inconvenience because of your search not keeping to the Code. Further information can be obtained by visiting www.tpos.co.uk or by sending an email to admin@tpos.co.uk.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0300 034 2222 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

### Ways to pay your bill

| **Credit Card** | **BACS Payment** | **Telephone Banking** |
|---|---|---|
| Please Call **0800 009 4540** quoting your invoice number starting CBA or ADS | Account number **90478703**<br>Sort code **60-00-01**<br>A remittance advice must be sent to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW.**<br>or email **ps.billing@thameswater.co.uk** | By calling your bank and quoting:<br>Account number **90478703**<br>Sort code **60-00-01**<br>and your invoice number |

## **Appendix D:** Illustrative Concept Masterplan

- Employment
- Green Space
- SuDS
- Structural Planting
- Vegetation
- Existing Woodland

A10

Baldock Road

A10

| Rev | Description | Date |
|---|---|---|

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Client:

Hallam Land Management

Land West of Buntingford

**Illustrative Masterplan (South of Baldock Road)**

| Scale@A3: | Drawn: | Designed: | Approved: |
|---|---|---|---|
| **1:5,000** | **MG** | **SJP** | **SJP** |

0m — 200m

| Drawing Number: | Revision: | Date: |
|---|---|---|
| **HLM082/030** | **C** | **10.06.24** |

50 North Thirteenth Street, Central Milton Keynes, MK9 3BP
01908 666276 mail@davidlock.com **davidlock.com**

DAVID LOCK ASSOCIATES

## **Appendix E:** Proposed Drainage Strategy Plan & Associated Calculations

Drainage requirements for proposed employment areas based on an assumed percentage of impermeable area
Additional on-plot attenuation could be provided if necessary - subject to detail design.

Proposed Basin 5
- Attenuation Storage: 2550m$^3$ (As shown on plan)
- Depth: 1.2m with 0.3m Freeboard
- Size, shape & position subject to detailed design

Proposed outfall to existing ditch

Legend

- Proposed Attenuation Basin with Associated Grading (1 in 100yr + 40% climate change)
- Proposed Foul Pumping Station
- Existing Ordinary Watercourse Corridor
- Flood Zone 2
- Flood Zone 3
- SWS EXT — Existing SW Sewer
- FWS EXT — Existing Foul Water Sewer
- Indicative Proposed SW Sewer

Notes:
1. Do not scale from this drawing.
2. The location of existing sewers and other features are shown indicatively based on utility companies asset plans. The location and details of any existing apparatus/features should be further investigated prior to commencement of works onsite.
3. Fluvial flood zones and surface water flood risk zones shown based on EA flood maps. These zones are subject to change following further investigation of EA flood data.
4. No detailed ground investigation information data is available for the site.
5. BGS data shows the site is underlain with Chalk of the Lewes Nodular Chalk Formation and Seaford Chalk Formation, which may be suitable for infiltration. Full infiltration testing in accordance with BRE Digest 365 guidance is required onsite to check infiltration feasibility.
6. If infiltration is found not to be a viable option, the preferred drainage strategy for the development is to discharge to the existing watercourses/ public sewer within the site and surrounding area, subject to approval from the LLFA, with surface water run-off from the development restricted to a pre-development greenfield Qbar rate.
7. The indicative attenuation basin shown has been sized to contain the 1 in 100 year including 40% CC allowance event.
8. The proposed basins are shown indicatively with grading shown tying into existing levels. The size, shape and position is subject to detail design.
9. An indicative overview of the drainage strategy is shown based on currently available information. This is subject to change and further assessment as the site is taken forward and more detailed information becomes available.
10. There is a considerable level difference in parts of the site, proposed basins have been shown to try to reflect the existing topography. However, significant earthworks may be required in the construction of the basins.
11. Due to the existing topography of the site, it is anticipated that foul flows will be discharged to the existing foul sewer network through a gravity connection.
12. For the attenuation option, it is anticipated that surface flows from the development will be conveyed to a suitable point of connection to the existing public sewer network or a local watercourse located within close proximity to the site. This is subject to approval with Thames Water/ LLFA.

| Rev | Date | Description | By | Apvd |
|---|---|---|---|---|
| P3 | 12.06.24 | Updated site boundary | LE | LE |
| P2 | 26.04.24 | Updated site boundary | LE | LE |
| P1 | 15.02.24 | Preliminary Issue | MD | LE |

**PROJECT:**
LAND SOUTH OF BALDOCK ROAD, BUNTINGFORD

**TITLE:**
PRELIMINARY DRAINAGE LAYOUT

**CLIENT:**
HALLAM LAND MANAGEMENT

**SCALE@A1:**
1:2000

**PROJECT REF:**
23161

**DRAWING No:** SK-C-008

**REV:** P3

*Revision Referencing*
P = Preliminary A = Approval T = Tender C = Construction

Bristol, Cardiff, Plymouth, Winchester
St James Court, St James Parade, Bristol BS1 3LH
jubb.uk.com
+44(0)117 922 6266

# Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

| | |
|---|---|
| **Calculated by:** | |
| **Site name:** | |
| **Site location:** | |

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013) , the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

## Site Details

| | |
|---|---|
| **Latitude:** | 51.95294° N |
| **Longitude:** | 0.03669° W |
| **Reference:** | 36901523 |
| **Date:** | Jan 11 2024 15:55 |

## Runoff estimation approach

FEH Statistical

## Site characteristics

**Total site area (ha):** 4.6

## Methodology

| | |
|---|---|
| **$Q_{MED}$ estimation method:** | Calculate from BFI and SAAR |
| **BFI and SPR method:** | Specify BFI manually |
| **HOST class:** | N/A |
| **BFI / BFIHOST:** | 0.385 |
| **$Q_{MED}$ (l/s):** | |
| **$Q_{BAR}$ / $Q_{MED}$ factor:** | 1.14 |

## Hydrological characteristics

| | Default | Edited |
|---|---|---|
| **SAAR (mm):** | 631 | 631 |
| **Hydrological region:** | 6 | 6 |
| **Growth curve factor 1 year:** | 0.85 | 0.85 |
| **Growth curve factor 30 years:** | 2.3 | 2.3 |
| **Growth curve factor 100 years:** | 3.19 | 3.19 |
| **Growth curve factor 200 years:** | 3.74 | 3.74 |

## Notes

### (1) Is $Q_{BAR}$ < 2.0 l/s/ha?

When $Q_{BAR}$ is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

### (2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

### (3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

## Greenfield runoff rates

| | Default | Edited |
|---|---|---|

| | | |
|---|---|---|
| $Q_{BAR}$ (l/s): | | 15.66 |
| 1 in 1 year (l/s): | | 13.31 |
| 1 in 30 years (l/s): | | 36.02 |
| 1 in 100 year (l/s): | | 49.95 |
| 1 in 200 years (l/s): | | 58.57 |

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

## Summary of Results for 100 year Return Period (+40%)

| Storm Event | Max Level (m) | Max Depth (m) | Max Control (l/s) | Max Volume (m³) | Status |
|---|---|---|---|---|---|
| 15 min Summer | 0.282 | 0.282 | 15.6 | 719.1 | O K |
| 30 min Summer | 0.395 | 0.395 | 15.7 | 1007.2 | O K |
| 60 min Summer | 0.512 | 0.512 | 15.7 | 1305.7 | O K |
| 120 min Summer | 0.655 | 0.655 | 15.7 | 1669.2 | O K |
| 180 min Summer | 0.734 | 0.734 | 15.7 | 1872.0 | O K |
| 240 min Summer | 0.784 | 0.784 | 15.7 | 1998.5 | O K |
| 360 min Summer | 0.838 | 0.838 | 15.7 | 2137.2 | O K |
| 480 min Summer | 0.862 | 0.862 | 15.7 | 2198.2 | O K |
| 600 min Summer | 0.871 | 0.871 | 15.7 | 2221.6 | O K |
| 720 min Summer | 0.872 | 0.872 | 15.7 | 2224.0 | O K |
| 960 min Summer | 0.859 | 0.859 | 15.7 | 2191.7 | O K |
| 1440 min Summer | 0.814 | 0.814 | 15.7 | 2076.9 | O K |
| 2160 min Summer | 0.756 | 0.756 | 15.7 | 1927.9 | O K |
| 2880 min Summer | 0.702 | 0.702 | 15.7 | 1791.3 | O K |
| 4320 min Summer | 0.607 | 0.607 | 15.7 | 1547.7 | O K |
| 5760 min Summer | 0.531 | 0.531 | 15.7 | 1355.2 | O K |
| 15 min Winter | 0.316 | 0.316 | 15.7 | 806.5 | O K |
| 30 min Winter | 0.443 | 0.443 | 15.7 | 1130.5 | O K |
| 60 min Winter | 0.575 | 0.575 | 15.7 | 1466.8 | O K |
| 120 min Winter | 0.737 | 0.737 | 15.7 | 1878.6 | O K |
| 180 min Winter | 0.826 | 0.826 | 15.7 | 2106.3 | O K |

| Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Discharge Volume (m³) | Time-Peak (mins) |
|---|---|---|---|---|
| 15 min Summer | 106.120 | 0.0 | 620.7 | 26 |
| 30 min Summer | 74.620 | 0.0 | 883.5 | 41 |
| 60 min Summer | 48.790 | 0.0 | 1276.3 | 70 |
| 120 min Summer | 31.640 | 0.0 | 1655.5 | 130 |
| 180 min Summer | 23.973 | 0.0 | 1872.6 | 190 |
| 240 min Summer | 19.471 | 0.0 | 2016.0 | 250 |
| 360 min Summer | 14.296 | 0.0 | 2190.9 | 368 |
| 480 min Summer | 11.361 | 0.0 | 2285.8 | 488 |
| 600 min Summer | 9.463 | 0.0 | 2336.5 | 606 |
| 720 min Summer | 8.132 | 0.0 | 2356.5 | 724 |
| 960 min Summer | 6.379 | 0.0 | 2328.7 | 962 |
| 1440 min Summer | 4.498 | 0.0 | 2195.7 | 1218 |
| 2160 min Summer | 3.173 | 0.0 | 3088.7 | 1588 |
| 2880 min Summer | 2.485 | 0.0 | 3217.0 | 1992 |
| 4320 min Summer | 1.779 | 0.0 | 3421.7 | 2768 |
| 5760 min Summer | 1.415 | 0.0 | 3727.2 | 3528 |
| 15 min Winter | 106.120 | 0.0 | 700.3 | 26 |
| 30 min Winter | 74.620 | 0.0 | 986.3 | 41 |
| 60 min Winter | 48.790 | 0.0 | 1431.2 | 70 |
| 120 min Winter | 31.640 | 0.0 | 1848.1 | 128 |
| 180 min Winter | 23.973 | 0.0 | 2081.5 | 186 |

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## Summary of Results for 100 year Return Period (+40%)

| Storm Event | Max Level (m) | Max Depth (m) | Max Control (l/s) | Max Volume (m³) | Status |
|---|---|---|---|---|---|
| 240 min Winter | 0.882 | 0.882 | 15.7 | 2249.7 | O K |
| 360 min Winter | 0.945 | 0.945 | 15.7 | 2410.5 | O K |
| 480 min Winter | 0.974 | 0.974 | 15.7 | 2485.0 | O K |
| 600 min Winter | 0.987 | 0.987 | 15.7 | 2517.4 | O K |
| 720 min Winter | 0.991 | 0.991 | 15.7 | 2526.2 | O K |
| 960 min Winter | 0.982 | 0.982 | 15.7 | 2503.1 | O K |
| 1440 min Winter | 0.933 | 0.933 | 15.7 | 2378.0 | O K |
| 2160 min Winter | 0.858 | 0.858 | 15.7 | 2188.0 | O K |
| 2880 min Winter | 0.791 | 0.791 | 15.7 | 2018.0 | O K |
| 4320 min Winter | 0.655 | 0.655 | 15.7 | 1670.5 | O K |
| 5760 min Winter | 0.536 | 0.536 | 15.7 | 1365.6 | O K |

| Storm Event | Rain (mm/hr) | Flooded Volume (m³) | Discharge Volume (m³) | Time-Peak (mins) |
|---|---|---|---|---|
| 240 min Winter | 19.471 | 0.0 | 2229.8 | 246 |
| 360 min Winter | 14.296 | 0.0 | 2390.3 | 362 |
| 480 min Winter | 11.361 | 0.0 | 2446.5 | 478 |
| 600 min Winter | 9.463 | 0.0 | 2443.8 | 592 |
| 720 min Winter | 8.132 | 0.0 | 2419.7 | 708 |
| 960 min Winter | 6.379 | 0.0 | 2363.5 | 932 |
| 1440 min Winter | 4.498 | 0.0 | 2242.1 | 1352 |
| 2160 min Winter | 3.173 | 0.0 | 3456.1 | 1676 |
| 2880 min Winter | 2.485 | 0.0 | 3594.4 | 2140 |
| 4320 min Winter | 1.779 | 0.0 | 3808.3 | 3028 |
| 5760 min Winter | 1.415 | 0.0 | 4176.5 | 3808 |

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## Rainfall Details

| | |
|---|---|
| Rainfall Model | FEH |
| Return Period (years) | 100 |
| FEH Rainfall Version | 2013 |
| Site Location | GB 536400 228400 TL 36400 28400 |
| Data Type | Catchment |
| Summer Storms | Yes |
| Winter Storms | Yes |
| Cv (Summer) | 0.750 |
| Cv (Winter) | 0.840 |
| Shortest Storm (mins) | 15 |
| Longest Storm (mins) | 5760 |
| Climate Change % | +40 |

## Time Area Diagram

Total Area (ha) 3.680

| Time From: | (mins) To: | Area (ha) | Time From: | (mins) To: | Area (ha) | Time From: | (mins) To: | Area (ha) |
|---|---|---|---|---|---|---|---|---|
| 0 | 4 | 1.000 | 4 | 8 | 1.000 | 8 | 12 | 1.680 |

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## Model Details

Storage is Online Cover Level (m) 1.500

## Tank or Pond Structure

Invert Level (m) 0.000

| Depth (m) | Area (m²) | Depth (m) | Area (m²) | Depth (m) | Area (m²) |
|---|---|---|---|---|---|
| 0.000 | 2550.0 | 1.000 | 2550.0 | 1.100 | 0.0 |

## Hydro-Brake® Optimum Outflow Control

| | |
|---|---|
| Unit Reference | MD-SHE-0179-1570-1000-1570 |
| Design Head (m) | 1.000 |
| Design Flow (l/s) | 15.7 |
| Flush-Flo™ | Calculated |
| Objective | Minimise upstream storage |
| Application | Surface |
| Sump Available | Yes |
| Diameter (mm) | 179 |
| Invert Level (m) | 0.000 |
| Minimum Outlet Pipe Diameter (mm) | 225 |
| Suggested Manhole Diameter (mm) | 1500 |

| Control Points | Head (m) | Flow (l/s) |
|---|---|---|
| Design Point (Calculated) | 1.000 | 15.7 |
| Flush-Flo™ | 0.324 | 15.7 |
| Kick-Flo® | 0.705 | 13.3 |
| Mean Flow over Head Range | - | 13.3 |

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

| Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) | Depth (m) | Flow (l/s) |
|---|---|---|---|---|---|---|---|
| 0.100 | 6.3 | 1.200 | 17.1 | 3.000 | 26.5 | 7.000 | 39.9 |
| 0.200 | 15.1 | 1.400 | 18.4 | 3.500 | 28.6 | 7.500 | 41.3 |
| 0.300 | 15.7 | 1.600 | 19.6 | 4.000 | 30.4 | 8.000 | 42.6 |
| 0.400 | 15.6 | 1.800 | 20.8 | 4.500 | 32.2 | 8.500 | 43.8 |
| 0.500 | 15.3 | 2.000 | 21.8 | 5.000 | 33.9 | 9.000 | 45.1 |
| 0.600 | 14.7 | 2.200 | 22.9 | 5.500 | 35.5 | 9.500 | 46.3 |
| 0.800 | 14.1 | 2.400 | 23.8 | 6.000 | 37.0 | | |
| 1.000 | 15.7 | 2.600 | 24.8 | 6.500 | 38.5 | | |

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