

NOTES

- PILED FOUNDATIONS
- DEEP TRENCH FOUNDATIONS >1.5m TO <2.5m
- STRIP FOUNDATIONS <1.5m
- LINE OF HIGHWALLS (KNOWN)
- LINE OF HIGHWALLS (INTERPRETED)
- APPROXIMATE SITE BOUNDARY

TO BE REVIEWED FOLLOING COMPLETION OF REMEDIATION EARTHWORKS

UPDATED WITH REFERENCE TO STRATA HOMES' DRAWING 18-CL2-SEGB-WE-01 REV P DATED 12 04 2021

REV.	DESCRIPTION	DATE
B		05/05/2021



info@lithos.co.uk
www.lithos.co.uk
Tel 01937 545330

CLIENT

STRATA

JOB TITLE

WESTGATE, CLECKHEATON

DRAWING TITLE

PRELIMINARY & SIMPLE FOUNDATION ZONING PLAN

DRAWN	GLM	DATE	04/11/2020	STATUS	FOR COMMENT <input type="checkbox"/>
CHECKED	ASw	DATE	04/11/2020	FOR APPROVAL	<input type="checkbox"/>
				DRAFT	<input type="checkbox"/>
				FINAL	<input checked="" type="checkbox"/>
SCALE	1:1,250	SHEET	A3	DRAWING NO.	3043/12
				REVISION	A

Appendix C
Commission

026/3043/REG

10th January 2020

Mr B Mansell
Strata Homes Limited
Quay Point
Lakeside
Doncaster
DN4 5PL



Registered in England 07068066

Parkhill
Wetherby
West Yorkshire
LS22 5DZ

T 01937 545 330
www.lithos.co.uk

Dear Ben

Westgate, Cleckheaton (Ground Investigation)

Further to our meeting before Xmas, please find attached our proposal for undertaking the recommended supplementary ground investigation.

We understand that your proposed development will include traditional 2 storey domestic dwellings with associated gardens, POS and adoptable roads and sewers; a layout (Drawing 18-CL2-SEGB-WE-01, Rev H) showing 209 units has been provided.

As you know, Lithos have already issued an SI Report (Ref. 3043/2a, dated April 2019), the scope of works for which was intended to enable a specialist brownfield contractor to cost the necessary remediation/preparatory works.

The works outlined in this letter are in line with recommendations included in Report 3043/2a and principally intended to resolve all outstanding geoenvironmental issues (including the need, or not, for groundwater remediation), to satisfy regulators and enable housebuilders to detail gas protection measures etc.

Anticipated works include:

- Post-vacation and post-demolition trial **pitting** in previously inaccessible areas (c. 25 pits)
- **Rotary** boreholes to confirm: depth of backfilled quarries; high wall dips (c. 45 probeholes to depths of between 10m and 25m). Groundwater monitoring wells to be installed in bedrock in 9 deep probeholes; gas monitoring wells to be installed in made ground in c. 20 shallower probeholes.
- **Cable percussion** boreholes in areas of deeper made ground (c. 6 boreholes to depths of between 10m and 15m) and through the Alluvial deposits in the south (c. 3 boreholes to depths of between 5m and 10m) to gather further geotechnical data from depth. Groundwater monitoring wells to be installed in the alluvial deposits (3 wells).
- A programme of **monitoring** for hazardous gas and organic vapours
- Groundwater sampling and analysis (detailed risk assessment may be required).

In addition, we understand that your preferred piling contractor (Van Elle) have requested rotary **core** extension (in line with official guidance) 5m beyond the toe of the pile in one of the cable percussion boreholes within the quarry. However, as discussed, given costs associated with re-mobilisation and drilling through quarry backfill, it is considered prudent to extend 3 of the boreholes into bedrock with the recovery of core.

A Carlow tank is expected to be located within the POS (underlain by deep quarry backfill) and such is likely to require piled foundations.



Our site investigation will be undertaken in accordance with UK good practice (as outlined in BS5930, BS10175, CLR11 etc). Our Report may not be fully compliant with Eurocode 7 (EC7) and will not purport to be a Ground Investigation Report, nor a Geotechnical Design Report as defined by EC7. Our ground appraisal is intended to assist others as they proceed with design of the proposed development.

This proposal allows for:

Fieldwork: All boreholes and trial pits will be supervised and logged by an experienced geoenvironmental engineer.

Representative soil samples of natural and man-made ground, including any contaminated samples, will be taken during the works. In-situ shear strengths of any cohesive soils encountered will be determined by the use of a hand-held shear vane.

The mechanical **excavator** will be equipped with a breaker to enable excavation through near-surface and buried concrete slabs and obstructions.

We will make every effort to compact arisings and 'sweep' them over each pit. However, you should be aware that on completion of the investigation, "graves" of spoil (each about 3m long by 1m wide) unsuitable for trafficking, will be left up to 400mm proud at each trial pit location. At this stage, no allowance has been made for any further reinstatement such as removal of excess arisings, replacement of turf.

Rotary **coring** will be undertaken using either a lorry or tracked mounted rig. Associated plant is likely to include water bowser, mono-pump and a grout mixer. Drilling equipment will include water tanks, IBCs (for water storage), trestles, core barrels, temporary casing and drill rods.

We have allowed for water recirculation via tanks and emptying of these via a gully sucker/tanker on completion of each borehole. We have also allowed for skip hire and disposal of surplus arisings etc.

We have assumed that core boxes (likely c. 6 no.) will be retained on site, after we have completed logging and photography. At this stage, no allowance has been made for transport of cores, nor storage off site.

If required by the piling contractor, we could take samples obtained for laboratory analysis - unconfined compressive strength (UCS) and point load tests. However, no allowance has been made for such testing at this stage. Allow an E\O of £7 for say 9 UCS and 20 point load tests.

Given the presence of backfilled quarries, we have allowed for the installation of wells in at least 20 probeholes and monitoring for hazardous gas.

The generation potential of this **gas** source is considered likely to be Low. Therefore, in accordance with CIRIA Report C665, we have initially allowed for 9 visits over a 6-month period. A hazardous gas risk assessment will be issued on completion of monitoring.

A proposed hole location plan (Lithos **Drawing 3043/Y**) is enclosed. It is understood that two buildings on site are still in use, most notably Ward Fabrication in the north-west. This may necessitate some revision to this proposal and Drawing 3043/Y.

Testing: This will comprise routine geotechnical soils analysis, including 10 moisture content & Atterberg limits, and 10 pH & water-soluble sulphate. We will also schedule for single stage, undrained unconsolidated triaxial tests on 9 undisturbed samples to assess shear strength, and one-dimensional analysis on 9 undisturbed samples to enable assessment of potential settlement and therefore aid foundation design.

With respect to contamination, we have allowed for testing of 20 samples for a suite including heavy metals, speciated PAH, and banded TPH (with supplementary speciation as/where appropriate).

Some of these samples will also be tested for semi-volatile and volatile organic compounds, acids, phenols and creosol.

Within in our proposal we have allowed for the screening (ID) of 20 samples for asbestos. In the event that positive IDs are reported, it is likely that we will need to schedule further analysis (asbestos quantification), in order to determine the significance of the results. Asbestos quantification is currently a relatively expensive test and consequently we have not allowed for it at this stage. We will inform you immediately after receipt of results if we consider asbestos quantification is required.

We will also recover groundwater samples from the wells in bedrock (9 no.) and alluvium (3 no.) on 3 occasions. Each water sample will be analysed for a suite including: heavy metals, VOCs & sVOCs.

Reporting & timescales: On completion an update of our SI report will be issued.

SWMP: As requested in December, we have also provided a cost for preparation of a surface water management plan (SWMP). The SWMP will identify and assess risks associated with discharge of surface water from site during the construction phase and detail a range of potential mitigation measures designed to protect surface water and reduce the likelihood of pollution.

The plan also includes an annotated plan showing critical receptors, mitigation measures and discharge points.

The SWMP should be read and understood by key site-based personnel with key individuals identified to ensure its implementation and general site management of surface water.

Invoicing: The attached proposal provides a breakdown of the costs associated with this project. This breakdown is for information only and the proposal can be regarded as a lump sum price of **£5** plus VAT. Variation will only occur in the event that a given item is not undertaken or that substantial additional works are recommended, in which case we will inform you immediately, provide costs for the required works, and seek your prior consent.

Our proposal allows for submission of the report to the Local Authority and NHBC, and for submission of a single piece of subsequent correspondence with each regulator to address any queries they may have. Any further meetings, correspondence etc, would be chargeable.

We will submit invoices for this project on completion of each Item(s) instructed.

Health, safety & welfare: The works outlined above will be carried out in accordance with Lithos' task- and site- specific Risk Assessments and Method Statements.

Details of welfare will be included within the Method Statements, however, this investigation is expected to be completed within 6 working days and therefore it is not considered reasonably practicable to provide formal welfare facilities, and our proposal makes no allowance for so doing.

Utility plans are required in order to protect operatives from the hazards associated with striking buried services and avoid potentially substantial disruption\repair costs. We will make every effort not to damage any services (including review of utility plans and use of a CAT detector). However, Lithos cannot accept liability for damage to any underground services that are not accurately marked on plans made available to us prior to commencement of our field investigation, or have not been accurately marked on the ground by a responsible third party (e.g. utility company, site owner).

We will obtain copies of the necessary utility plans (including electricity, gas, water, drainage & telecom) from each of the utility companies.

Under the CDM Regulations 2015, Lithos must be provided with pre-construction information already in your possession, or information that can reasonably be obtained through sensible enquiry. This information must be relevant to the project, have an appropriate level of detail, and be proportionate to the nature of the risks.

Terms & conditions: This work will be undertaken in accordance with our Standard Terms and Conditions, a copy of which are enclosed.

At the time of writing, we understand that our report is solely for the Administrator's benefit. However, it is anticipated that eventually a third party (the Developer) will wish to rely on our report. We confirm that we will assign, free of charge, the benefit of our Report(s) to the Developer on receipt of an instruction from the Administrator. In the event that both the Administrator and the Developer require reliance, or if more than one Developer requires reliance, a warranty will be required. We confirm that we will consent to a request from the Administrator to enter a collateral warranty, provided it is our approved standard form, and subject to payment of a fee to cover our legal and incidental costs. We will require approval from our insurers if more than one beneficiary requires a warranty, or if the proposed warranty is not Lithos' approved standard form.

It is hoped the above is sufficient for your present needs. However, should you require any further information, please contact the undersigned.

Yours sincerely

REDACTED

Mark Perrin
Director
for and on behalf of
LITHOS CONSULTING LIMITED

1 DEFINITIONS AND INTERPRETATION

1 In this Agreement unless the context otherwise requires the following words and expressions have the following meanings:

"Agreement" shall mean these Terms (entitled "Terms and Conditions for the Appointment of Lithos Consulting") the Proposal any document recording the Client's unequivocal acceptance of the Proposal and any other documents or parts of other documents expressly referred to in any of the foregoing;

"Client" shall mean the party for whom the Services are being provided by Lithos;

"Documents" shall mean all documents of any kind and includes plans drawings reports programmes specifications Bills of Quantities calculations letters e-mails faxes memoranda films and photographs (including negatives) or any other form of record prepared or provided or received by or on behalf of Lithos and whether in paper form or stored electronically or on disk or otherwise;

"Lithos" shall mean Lithos Consulting Limited whose registered office is at Parkhill Walton Road Wetherby West Yorkshire LS22 5DZ

"Intellectual Property" includes all rights to and any interests in any patents designs trade marks copyright know-how trade secrets and any other proprietary rights or forms of intellectual property (protectable by registration or not) in respect of any technology concept idea data programme or other software including source and object codes) specification plan drawing schedule minutes correspondence scheme programme design system process logo mark style or other matter or thing existing or conceived used developed or produced by any person;

"Parties" shall mean the Client and Lithos

"Project" shall mean the project described in the Proposal and any enquiry from the Client on which Lithos has based its Proposal;

"Proposal" means the offer document prepared by Lithos in response to an enquiry or otherwise in connection with the proposed provision of the Services;

"Services" means the work and services relating to the Project to be provided by Lithos pursuant to the Agreement and as set out in the Proposal and shall include any additions or amendments thereto made in accordance with these Terms;

"Terms" means these terms entitled "Lithos Consulting Terms of Appointment"

2 Words importing the singular only shall also include the plural and vice versa where the context requires

3 Words importing persons or parties shall include firms corporations and any organisation having legal capacity and vice versa where the context requires; and words importing a particular gender include all genders

4 The sub-headings to the clauses of these Terms are for convenience only and shall not affect the construction of the Agreement

5 A reference to legislation includes that legislation as from time to time amended re-enacted or substituted and any Orders in Council orders rules regulations schemes warrants by-laws directives or codes of practice issued under any such legislation

6 In the event of conflict between the documents forming part of the Agreement the Proposal shall prevail followed by the Terms

2 APPOINTMENT

2.1 The Client agrees to engage Lithos and Lithos agrees to provide the Services in accordance with the provisions of the Agreement

3 OBLIGATIONS OF LITHOS

3.1 Lithos shall perform the Services using the reasonable standard of skill and care normally exercised by similar professional Environmental firms in performing similar services under similar conditions

3.2 Lithos shall use all reasonable endeavours to perform the Services in accordance with all relevant environmental and safety legislation

4 OBLIGATIONS OF THE CLIENT

4.1 Throughout the period of this Agreement the Client shall afford to Lithos or procure the affording to Lithos of access to any site where access is required for the performance of the Services

4.2 The Client accepts responsibility for ensuring that Lithos is notified in writing of a special site and/or plant conditions including without prejudice to the generality of the foregoing the existence and precise location of all underground services cables pipes drains or underground buildings constructions or any hazards known or suspected by the Client which the Client shall clearly mark on the ground or identify on accurate location plans supplied to Lithos prior to the commencement of the Services. The Client shall also inform Lithos in writing of any relevant operating procedures including any site safe operating procedures and any other regulations relevant to the carrying out of the Services. The Client shall indemnify Lithos against all costs claims demands and expenses arising as a result of any non-disclosure in this respect including but not limited to indemnification against any action brought by the owner of the land or otherwise

4.3 If the Client discovers any conflict defect or other fault in the information or designs provided by Lithos pursuant to the Agreement he will advise Lithos in writing of such defect conflict or other fault and Lithos shall have the right to rectify the same or where necessary to design the solution for rectification of any works carried out by others pursuant the conflicting defective or in any other way faulty information or designs

5 INTELLECTUAL PROPERTY

5.1 The copyright in all Intellectual Property prepared by or on behalf of Lithos in connection with the Project for delivery to the Client shall remain vested in Lithos

5.2 The Client shall have a non-exclusive licence to copy and use such Intellectual Property for purposes directly related to the Project. Such licence shall enable the Client to copy and use the Intellectual Property but solely for its own purposes in connection with the Project and such use shall not include any licence to reproduce any conceptual designs or professional opinions contained therein nor shall it include any licence to amend any drawing design or other Intellectual Property produced by Lithos

5.3 Should the Client wish to use such Intellectual Property in connection with any other works or for any other purpose not directly related to the Project or wish to pass any Intellectual Property to any third party it must obtain the prior written consent of Lithos. The giving of such consent shall be at the discretion of Lithos and shall be upon such terms as may be required by Lithos. Lithos shall not be liable for the use by any person of such Intellectual Property for any purpose other than that for which the same were prepared by or on behalf of Lithos

5.4 Ownership of any proposals submitted to the Client that are not subsequently confirmed as part of the Services to be provided for the Client remain with Lithos and such proposals must not be used as the basis for any future work undertaken by the Client or a third party and no liability can be accepted howsoever arising from such proposals

5.5 In the event of the Client being in default of payment of any fees or other amounts due Lithos may suspend further use of the licence on giving 2 days' notice of the intention to do so. Use of the licence may be resumed on receipt of the outstanding amounts

6 TITLE

6.1 Lithos shall transfer only such title or rights in respect of the Documents as it has and if any part is purchased from a third party Lithos shall transfer only such title or rights as that party had and has transferred to Lithos

6.2 Title in the Documents shall remain with and shall not pass to the Client until the amount due under the invoice(s) (including interest and costs) has been paid in full

6.3 Until title passes the Client shall hold the Documents as bailee for Lithos and shall store or mark them so that they can at all times be identified as the property of Lithos

6.4 At any time before title passes (save and except where payment is not due) but only after prior consultation with the Client Lithos may without any liability to the Client repossess and use or sell all or any of part of the Documents and by doing so terminate the right of the Client to use sell or otherwise deal in the Documents

6.5 Lithos may maintain an action for the price of the Documents notwithstanding that title in them has not passed to the Client

7 CONFIDENTIALITY AND DATA PROTECTION

7.1 Lithos undertakes not to divulge or disclose to any third party without the written consent of the Client information which is designated confidential by the Client or which can reasonably be considered to be confidential and arises during the performance of the Services unless required to do so by law or necessary in the proper performance of its duties in relation to the Project or in order to make full frank and proper disclosure to its insurers or intended insurers or to obtain legal or accounting advice

7.2 Subject to the above and Lithos' Privacy Policy which can be found on www.lithos.co.uk Lithos shall be permitted to use information related to the Services it provides in connection with the Project for the purposes of marketing its services and in proposals for work of a similar type

8 THIRD PARTIES

8.1 The Agreement or any part thereof or any benefit or interest thereunder may not be assigned by the Client without the prior written consent of Lithos. The giving of such consent shall be at the discretion of Lithos and Lithos will only agree to an assignment on its terms and in return for payment of a fee by the Client to Lithos to cover Lithos' legal and other costs associated with any assignment

8.2 The Agreement shall not confer and shall not purport to confer on any third party any benefit or any right to enforce any term of this Agreement for the purposes of the Contracts (Rights of Third Parties) Act 1999 or otherwise

8.3 Lithos will consider and may consent to any request from the Client for Lithos to enter a collateral warranty with a third party with regard to the Services provided under the Agreement. The giving of such consent shall be at the discretion of Lithos and Lithos will only enter a collateral warranty on its terms and in return for payment of a fee by the Client to Lithos to cover Lithos' legal and other costs associated with any collateral warranty

9 INSURANCE

9.1 Lithos warrants to the Client that there is in force a policy of Professional Indemnity insurance covering its liabilities for negligence under this Agreement with a limit of indemnity of £5 000 000 (FIVE MILLION POUNDS) any one claim save for pollution and contamination claims and asbestos claims both of which carry £2 000 000 (TWO MILLION) in the aggregate cover. This policy is annually renewable and whilst renewal is not automatic Lithos agrees to use reasonable endeavours to maintain such insurance at all times until six years from the date of the completion (or termination) of the Services under the Agreement provided such insurance is available at commercially reasonable rates having regard inter alia to premiums required and policy terms obtainable

9.2 If for any period such insurance is not available at commercially reasonable rates Lithos shall forthwith inform the Client and shall obtain in respect of such period such reduced level of Professional Indemnity insurance as is available and as would be fair and reasonable in the circumstances for Lithos to obtain

10 LIMITATIONS ON LIABILITY

10.1 Unless otherwise agreed in writing Lithos' liability under or in connection with the Agreement whether in contract tort negligence breach of statutory duty or otherwise (other than in respect of personal injury or death) shall be limited to and shall not exceed the lesser of either five million pounds in the aggregate (unless it is a pollution contamination or asbestos claim in which case it is two million pounds in the aggregate) or 10 times the total value of invoices issued to the Client for consultancy work instructed under the Agreement

10.2 No action or proceedings under or in respect of the Agreement whether in contract tort negligence under statute or otherwise shall be commenced against Lithos after the expiry of a period of six years from the date of the completion (or termination) of the Services under the Agreement

10.3 Whilst Lithos will scan all potential exploratory locations with a Cable Avoidance Tool Lithos shall not be liable for any damage to underground services cables pipes drains or underground buildings constructions and the like which were either not marked on site or for which accurate plans were not provided

10.4 Lithos shall not be liable for the cost of rectifying any defect conflict or other fault in the information or designs provided by Lithos or for the cost of designing a solution for and rectifying any subsequent works carried out by others pursuant to the conflicting defective or in any other way faulty information or designs unless Lithos has been advised in writing of the same by the Client and has been given the opportunity to rectify the same or where necessary to design the solution for rectification of any subsequent works carried out by others pursuant to the same

11 PAYMENT

11.1 Invoices for services rendered will be submitted for payment in accordance with the Proposal

11.2 The due date for payment is the date of the invoice and the final date for payment is 28 days from the date of the invoice

11.3 If the Client disputes the amount included for payment in an invoice a written notice must be served on Lithos by the Client not later than 14 days before the final date for payment. If no notice is given the amount due shall be the amount stated in the invoice

11.4 In the event of failure on the part of the Client to pay any monies in accordance with the foregoing payment provisions Lithos will be entitled to charge interest on any monies owed to it by the Client such interest to be at a rate of 8% above the base rate of a clearing bank from time to time calculated from the final date for payment to the date of actual payment on a compound basis

12 DELAY

12.1 Lithos will comply with any timescale agreed for completion of the Services unless delayed or prevented by circumstances beyond its reasonable control and in the event of any such circumstances arising Lithos undertakes to complete the Services within a reasonable period but will not be liable to the Client for any delay as a result

13 TERMINATION

13.1 The Agreement may be terminated by either party in the event of the other making a composition or arrangement with its creditors becoming bankrupt or being a company making a proposal for a voluntary arrangement for a composition of debts or has a provisional liquidator appointed or has a winding-up order made or passes a resolution for voluntary winding-up (except for the purposes of a bona fide scheme of amalgamation or reconstruction) or has an administrator or an administrative receiver appointed to the whole or any part of its assets. Notice of termination must be given to the party which is insolvent by the other party

13.2 If for any reason the performance of the Services by Lithos is suspended for a period in excess of three calendar months then Lithos shall be entitled to terminate its appointment in respect of the Services by seven days written notice to the Client

13.3 If the Client shall fail to pay in full any sum due under the terms of the Agreement by the final date for payment for that sum and no effective notice of intention to withhold payment has been issued Lithos may serve written notice on the Client demanding payment within 14 days of such notice. If the Client shall fail to comply with such notice Lithos shall be entitled to terminate its employment under the Agreement forthwith

13.4 Any termination of the appointment of Lithos howsoever caused shall be without prejudice to the right of Lithos to require payment for all services performed up to the date of such termination including but not limited to payment of a fair and reasonable proportion of any figure identified in the Proposal or otherwise for fees in respect of a particular service which Lithos has started but not completed

14 NOTICES

14.1 Any notice provided for in the Agreement shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post to the address of the relevant party as may have been notified by each party to the other or in the absence of notification to the address of Lithos set out above or to the registered address of the Client

14.2 Such notice shall be deemed to have been received on the day of delivery if delivered by hand or on the second working day after the day of posting if sent by first class post

15 ENTIRE AGREEMENT

15.1 The Agreement constitutes the complete and entire agreement between the Client and Lithos with respect to the Services and supersedes any prior oral and/or written warranties terms conditions communications and representations whether express or implied and any claim against Lithos in respect of the Services can only be made in contract under the provisions of the Agreement and not otherwise under the law or tort or otherwise

15.2 No amendments modifications or variation of the Agreement shall be valid unless made in writing and agreed to by both the Client and Lithos; such agreement must be recorded in writing by at least one of the Parties

15.3 Lithos will not be bound by any standard or printed terms or conditions furnished by the Client in any of its documents unless Lithos specifically states in writing separately from such documents that it intends such terms and conditions to apply

16 DISPUTES AND GOVERNING LAW

16.1 The Agreement shall be governed by and construed in accordance with English law and the Parties irrevocably and unconditionally submit to the jurisdiction of the English Courts

16.2 Where the Housing Grants Construction and Regeneration Act 1996 applies any dispute between the Parties may be referred to adjudication in accordance with the Scheme for Construction Contracts Regulations 1998 or any amendment or modification thereof being in force at the time of the dispute as applicable to England Wales Scotland and Northern Ireland

George Morton

From: George Morton
Sent: 04 November 2020 09:59
To: George Morton
Subject: FW: 3043: Westgate, Cleckheaton - Additional Site Investigation
Attachments: 026 Let to Strata (GI Quote) 10 1 20.pdf

From: Ben Mansell <BenMansell@strata.co.uk>
Sent: 28 July 2020 11:55
To: Reg <Reg@lithos.co.uk>
Cc: Lewis Whiteley <Lewis.Whiteley@lithos.co.uk>; Taylor Holden <TaylorHolden@strata.co.uk>; Mark Leaf <MarkLeaf@strata.co.uk>; Alan Swales <Alan.Swales@lithos.co.uk>
Subject: RE: 3043: Westgate, Cleckheaton - Additional Site Investigation

Thanks Reg,

Yes, assuming all goes to plan please take this as formal instruction to carry out the works outlined in the attached quote.

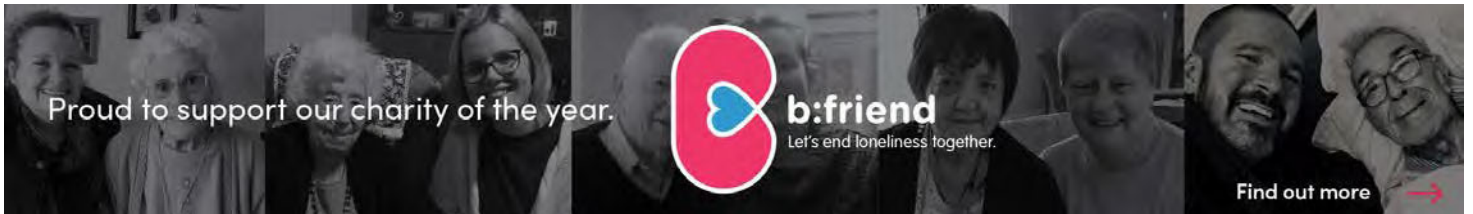
Thanks,
Ben



Ben Mansell
Engineer

m: 07866 031689
t: 01302 308508
e: BenMansell@strata.co.uk

strata.co.uk



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Appendix D
Historical OS Plans



Yorkshire

Published 1894

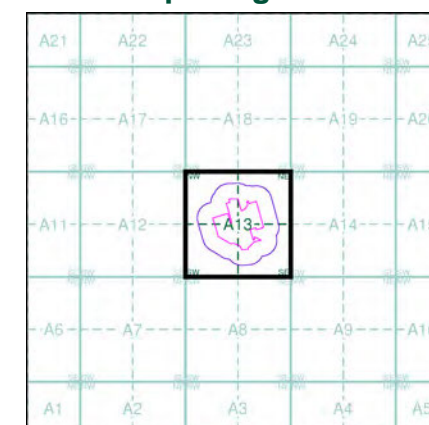
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

232_05
1894
1:2,500
232_09
1894
1:2,500

Historical Map - Segment A13



Order Details

Order Number: 188155699_1_1
 Customer Ref: PO13921/JW/3043
 National Grid Reference: 418400, 425030
 Slice: A
 Site Area (Ha): 6.37
 Search Buffer (m): 100

Site Details

Site at 418400, 425000



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk





Yorkshire

Published 1938

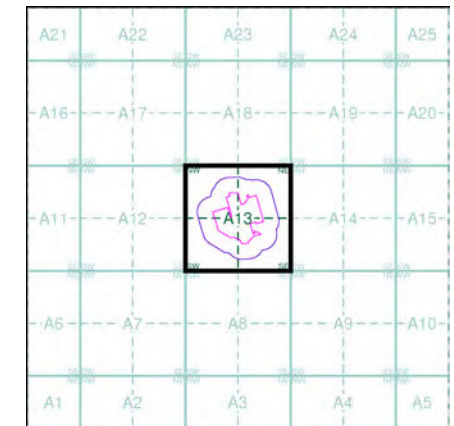
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

232_05	1938	1:2,500
232_09	1938	1:2,500

Historical Map - Segment A13



Order Details

Order Number: 188155699_1_1
 Customer Ref: PO13921/JW/3043
 National Grid Reference: 418400, 425030
 Slice: A
 Site Area (Ha): 6.37
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Site Details

Site at 418400, 425000



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



418200

418400

418600



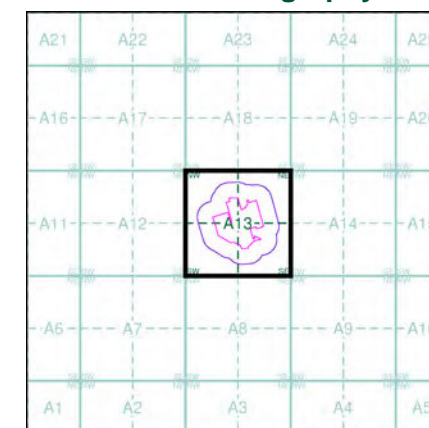
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain



Historical Aerial Photography - Segment A13



Order Details

Order Number: 188155699_1_1
 Customer Ref: PO13921/JW/3043
 National Grid Reference: 418400, 425030
 Slice: A
 Site Area (Ha): 6.37
 Search Buffer (m): 100

Site Details

Site at 418400, 425000



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

Appendix E
Search Responses



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

188155699_1_1

Customer Reference:

PO13921/JW/3043

National Grid Reference:

418400, 425030

Slice:

A

Site Area (Ha):

6.37

Search Buffer (m):

1000

Site Details:

Site at 418400, 425000

Client Details:

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Lithos Consulting Ltd
Parkhill
Walton Road
Wetherby
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Prepared For:

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Report Section	Page Number
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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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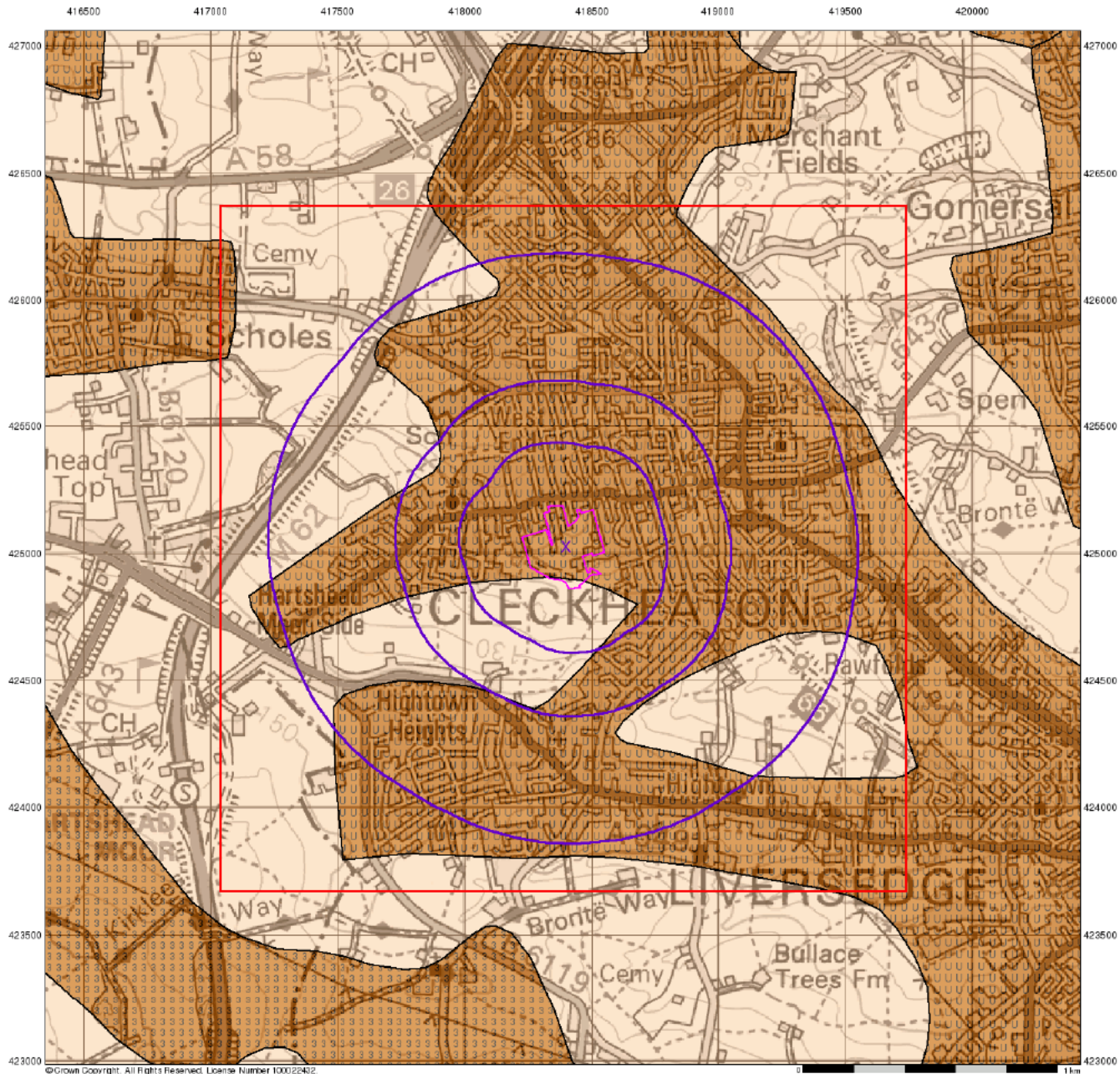
Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 3			2	9
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 6				1
Integrated Pollution Prevention And Control	pg 6		2	1	6
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8	1		3	12
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 10	Yes			
Pollution Incidents to Controlled Waters	pg 10		2	5	26
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 15				2
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 16				7
Water Abstractions	pg 17				3 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 19	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 19	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 20	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 20	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 20	5	11	15	53

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 30				1
Historical Landfill Sites	pg 30			1	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 30	3	2		
Local Authority Landfill Coverage	pg 31	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 31	2	1	4	2
Potentially Infilled Land (Water)	pg 32	7	14	4	25
Registered Landfill Sites	pg 35			1	
Registered Waste Transfer Sites	pg 35	2			1
Registered Waste Treatment or Disposal Sites	pg 36		4		1
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 39				1
Planning Hazardous Substance Consents	pg 39				2
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 40	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 40	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 48	1		2	
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 49	Yes	n/a	n/a	n/a
Mining Instability	pg 49	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 49	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 49	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 49	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 50	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 50		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 52	4	82	35	161
Fuel Station Entries	pg 77			1	3
Points of Interest - Commercial Services	pg 77	3	27	8	33
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 83	4	16	10	81
Points of Interest - Public Infrastructure	pg 92		6	5	5
Points of Interest - Recreational and Environmental	pg 93				4
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt	pg 95			1	
Areas of Unadopted Green Belt	pg 95			1	
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 95	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



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Groundwater Vulnerability

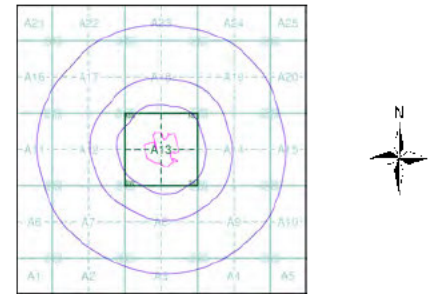
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes		Soil Classes
Major Aquifer (Highly Permeable)		High (H) 1, 2, 3, U
		Intermediate (I) 1, 2
		Low
Minor Aquifer (Variably Permeable)		High (H) 1, 2, 3, U
		Intermediate (I) 1, 2
		Low
Non Aquifer (Negligibly Permeable)		
Water or Sea		
Drift Deposit		

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 188155699_1_1
 Customer Ref: PO13921/JW/3043
 National Grid Reference: 418400, 425030
 Slice: A
 Site Area (Ha): 6.37
 Search Buffer (m): 1000

Site Details

Site at 418400, 425000

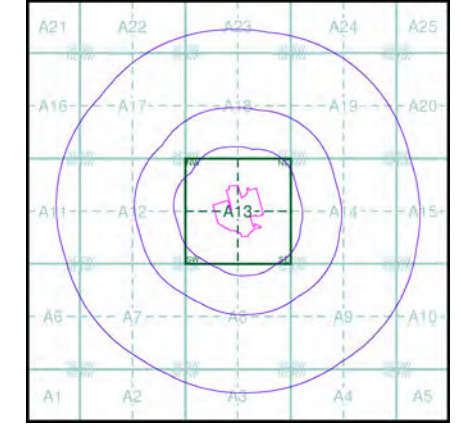


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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHNS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A



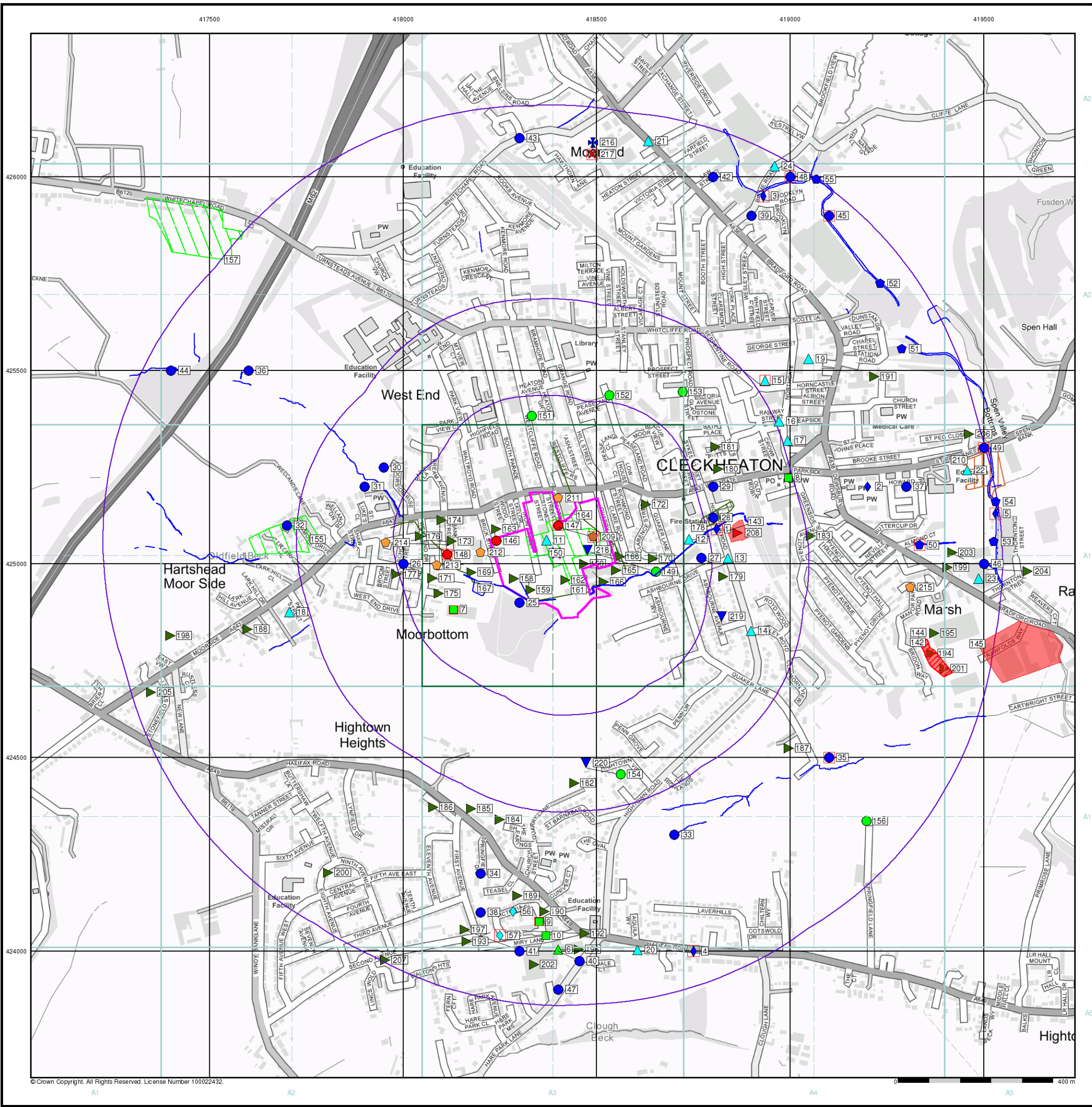
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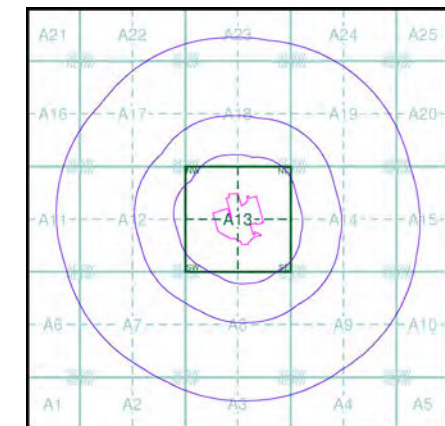
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

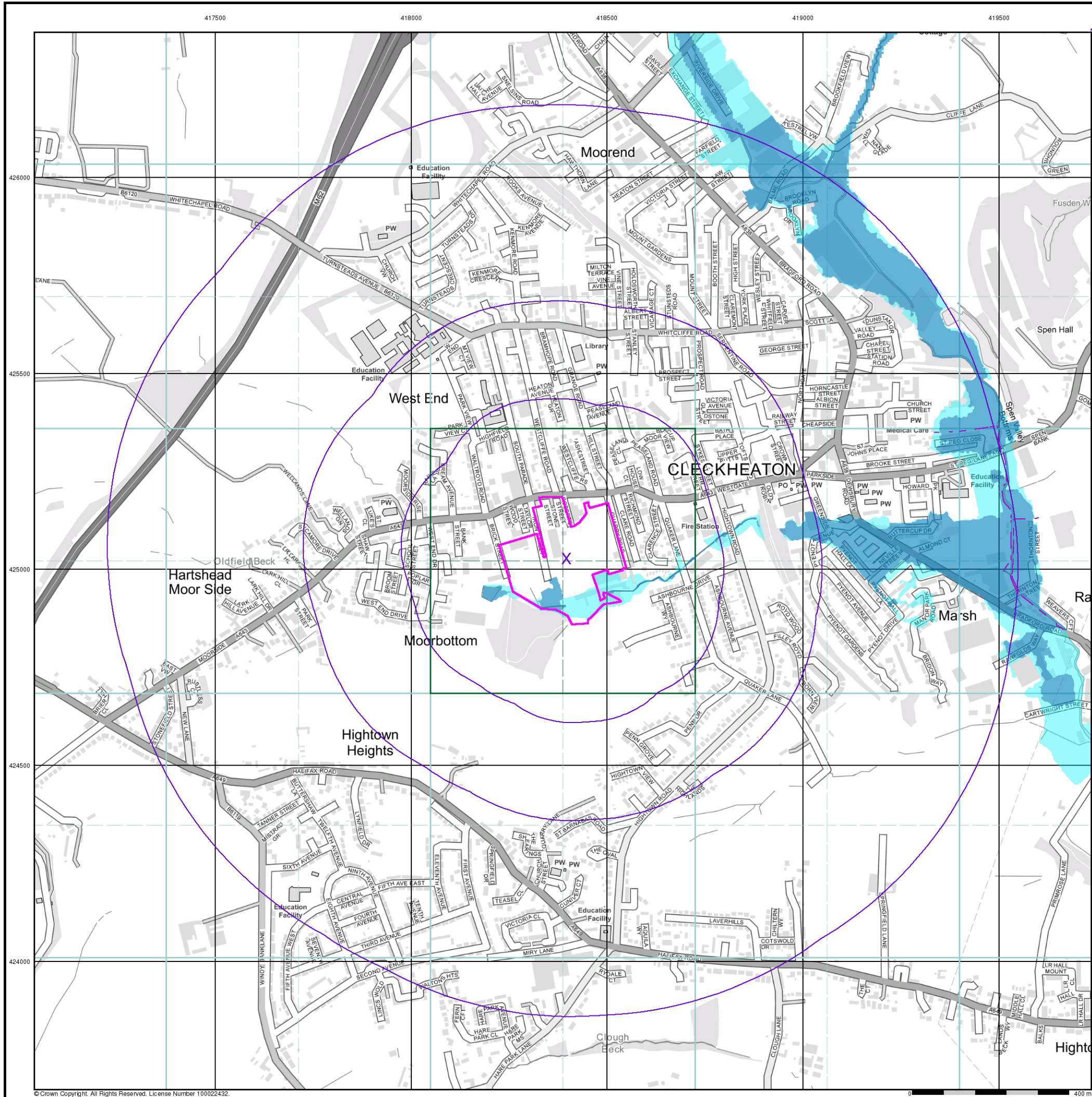
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 National Grid Reference: 418400, 425030
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Site Details

Site at 418400, 425000



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

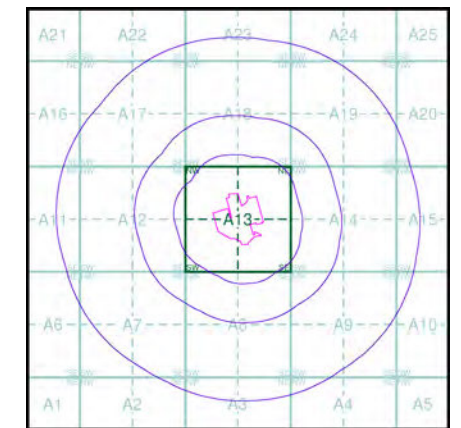
OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

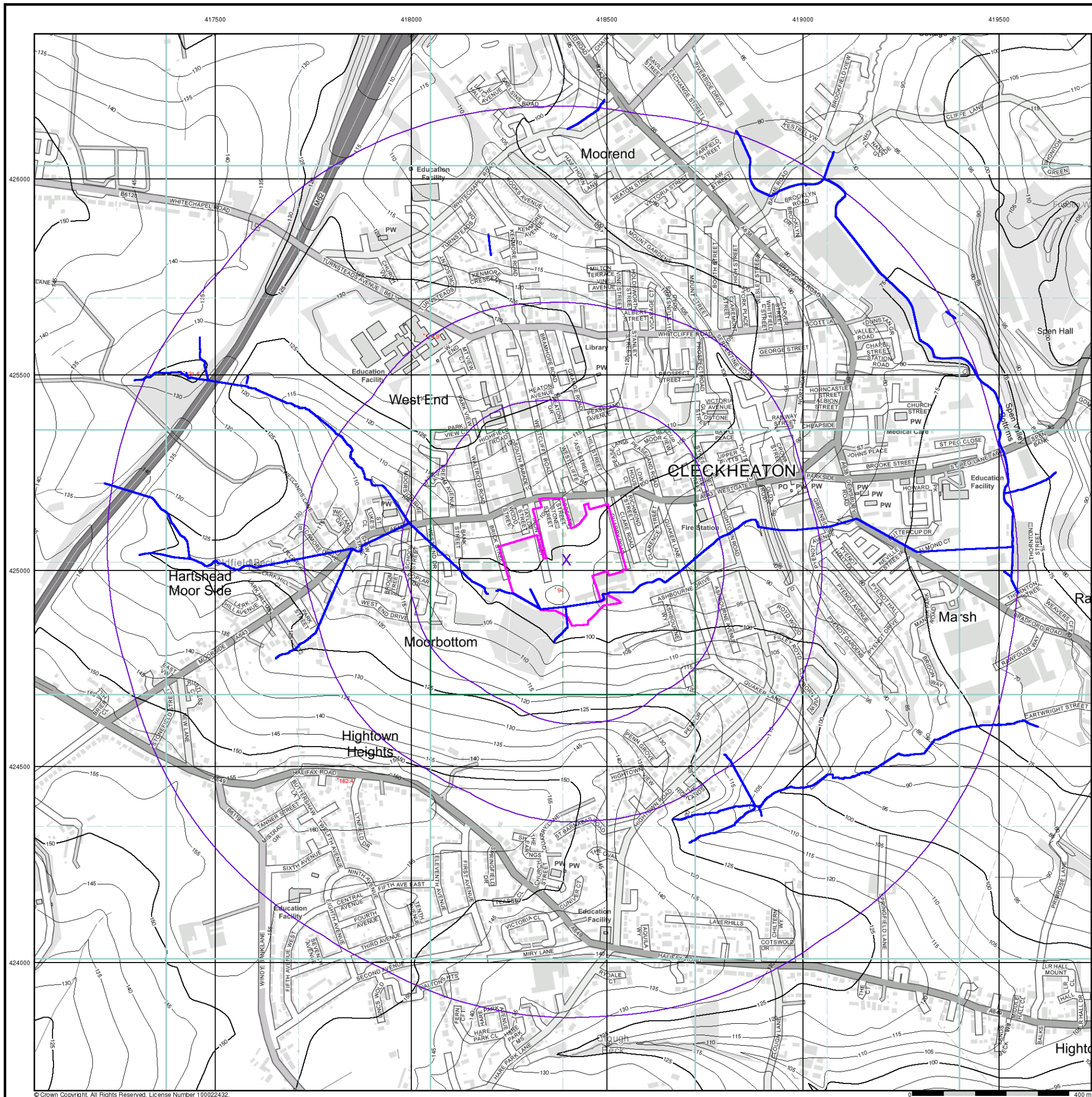
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