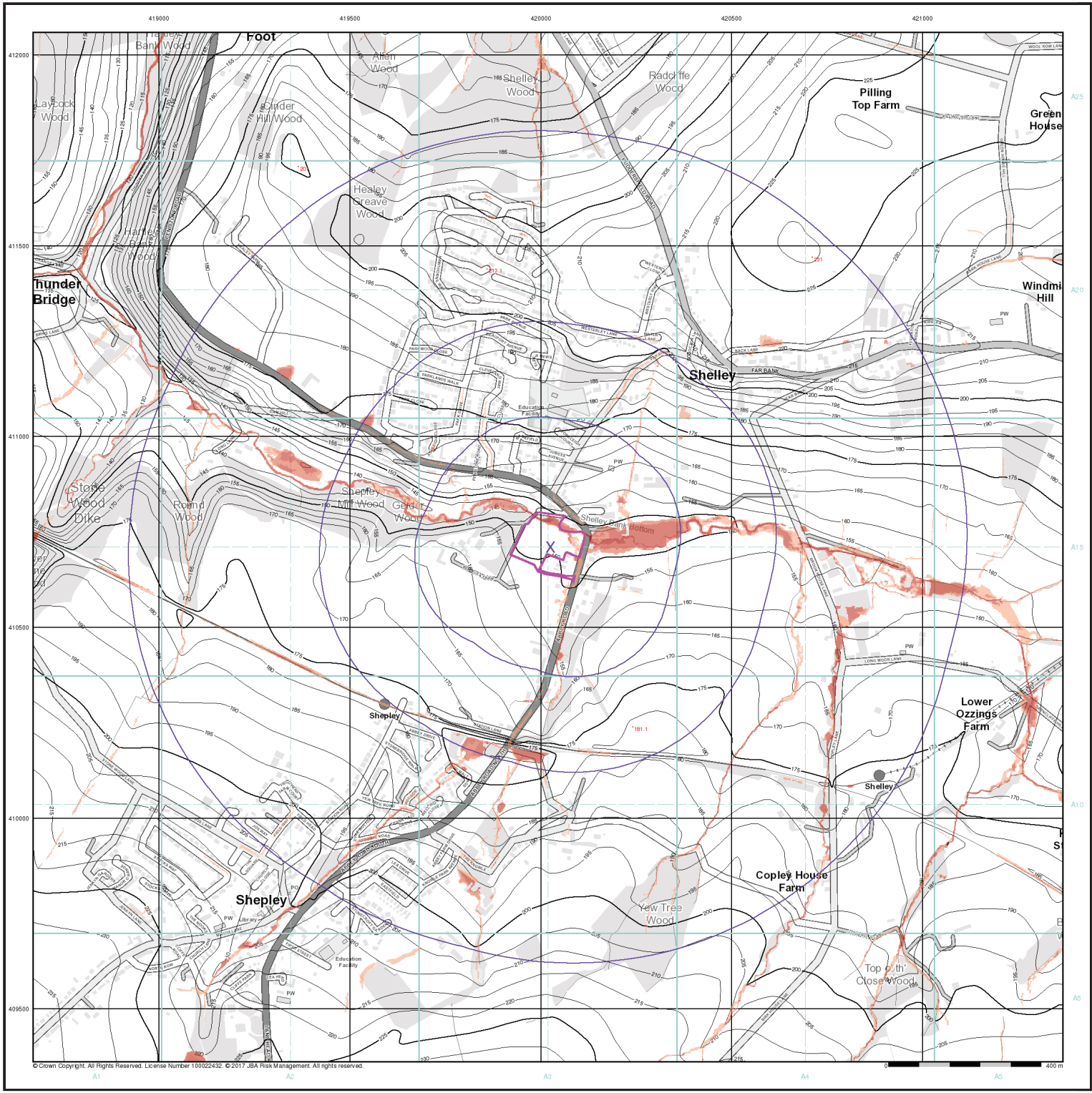

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FAIRHURST

EA/NRW Surface Water 100 Year Return Hazard Rating Map (1:10,000)

General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

Surface Water Hazard Rating

- Low (0.5 – 0.75)
- Moderate (0.75 – 1.25)
- Significant (1.25 – 2.0)
- Extreme (>2.0)

Contours (height in metres)

Standard Contour 105 | Master Contour 100 | 95

Spot Height * 167.8

MLW Mean Low Water

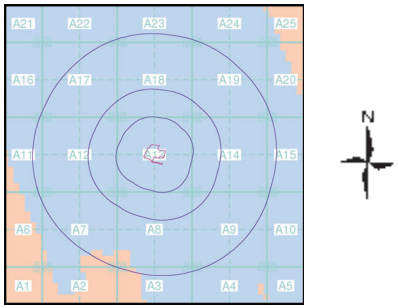
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



Order Details

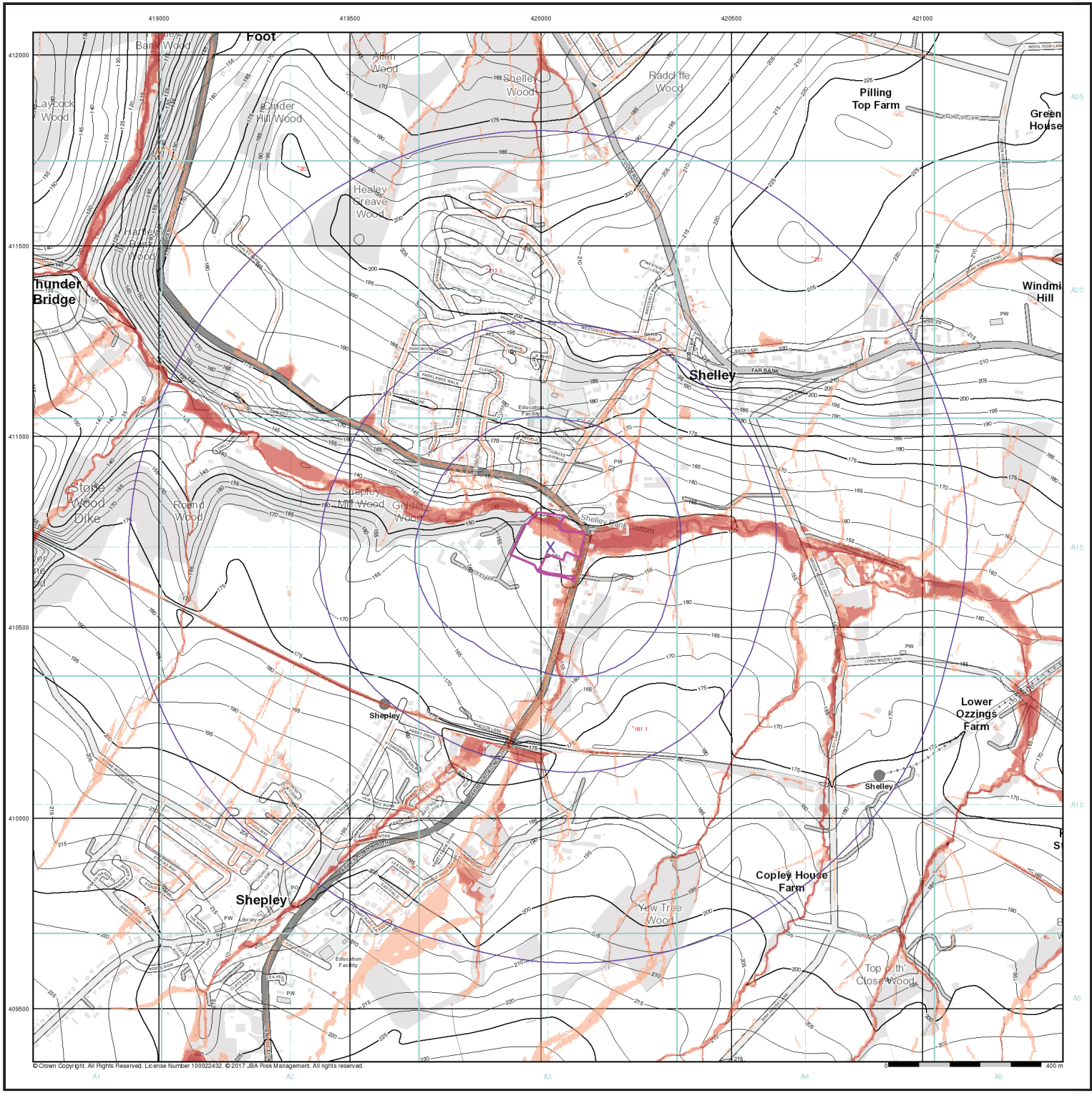
Order Number:	119830894_3_1
Customer Ref:	119607
National Grid Reference:	420030, 410710
Slice:	A
Site Area (Ha):	1.74
Search Buffer (m):	1000

Site Details

177, Abbey Road, Shepley, HUDDERSFIELD, HD8 8DY

Landmark INFORMATION GROUP

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



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FAIRHURST

EA/NRW Surface Water 1000 Year Return Hazard Rating Map (1:10,000)

General

Specified Site | Specified Buffer(s) | X Bearing Reference Point

Surface Water Hazard Rating

- Low (0.5 – 0.75)
- Moderate (0.75 – 1.25)
- Significant (1.25 – 2.0)
- Extreme (>2.0)

Contours (height in metres)

Standard Contour 105 | Master Contour 100 95 | Spot Height * 167.8

MLW Mean Low Water

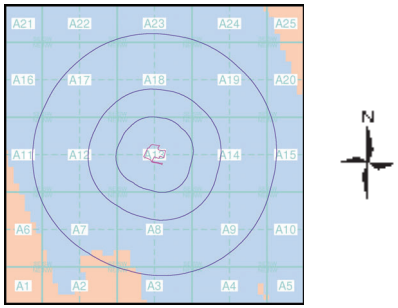
MHW Mean High Water

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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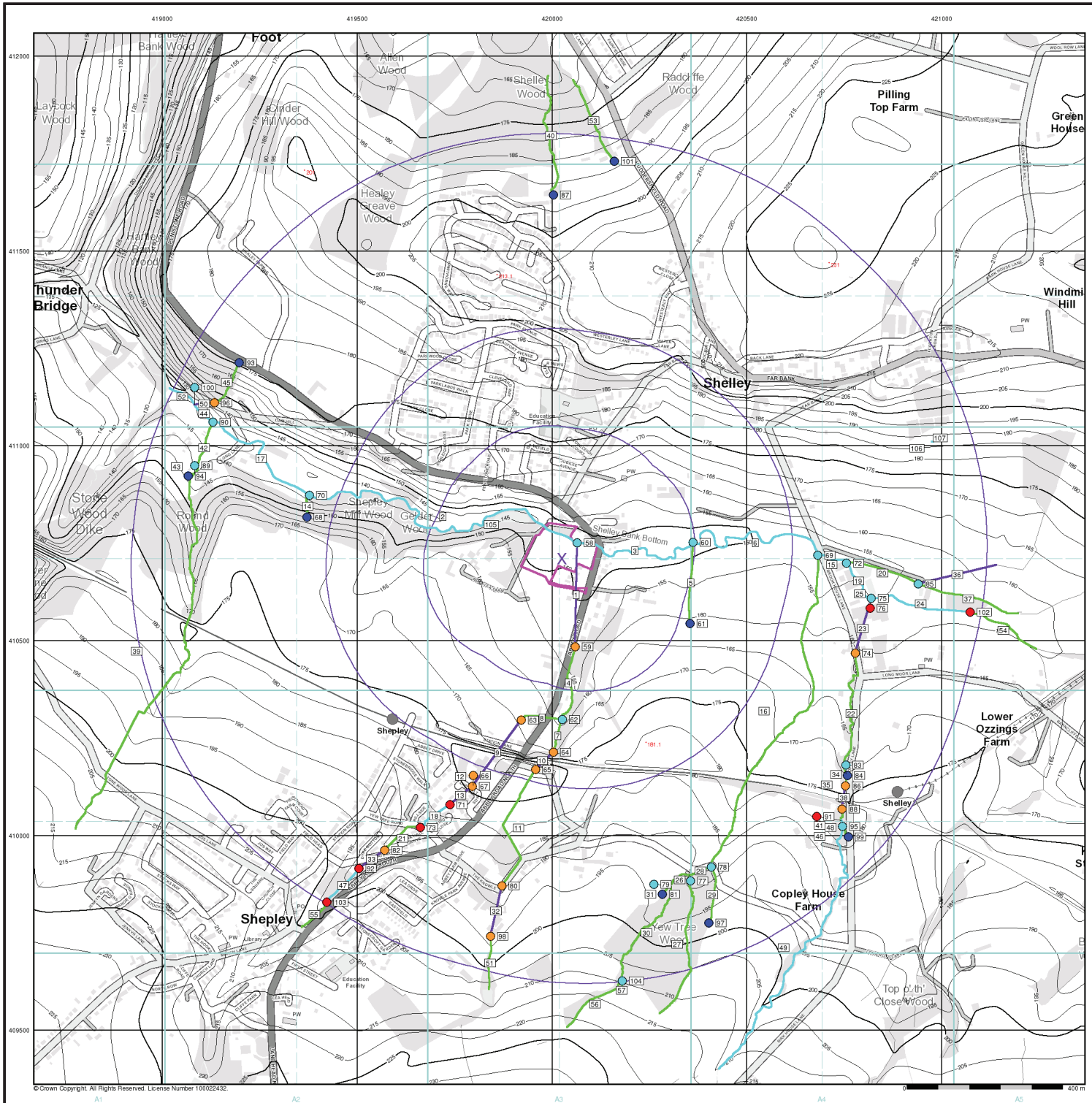


FAIRHURST

Detailed River Network Map (1:10,000)

General

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

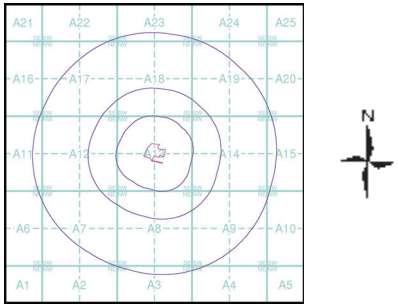
Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature
- Source
- Junction
- Sink
- Non-interactive Node
- Not assigned River feature
- Pseudo Node (general)
- Pseudo Node (High Water Mark)
- Pseudo Node (OS MasterMap polygon boundary)
- Offline Drainage Feature

Contours (height in metres)

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

Detailed River Network Map - Slice A



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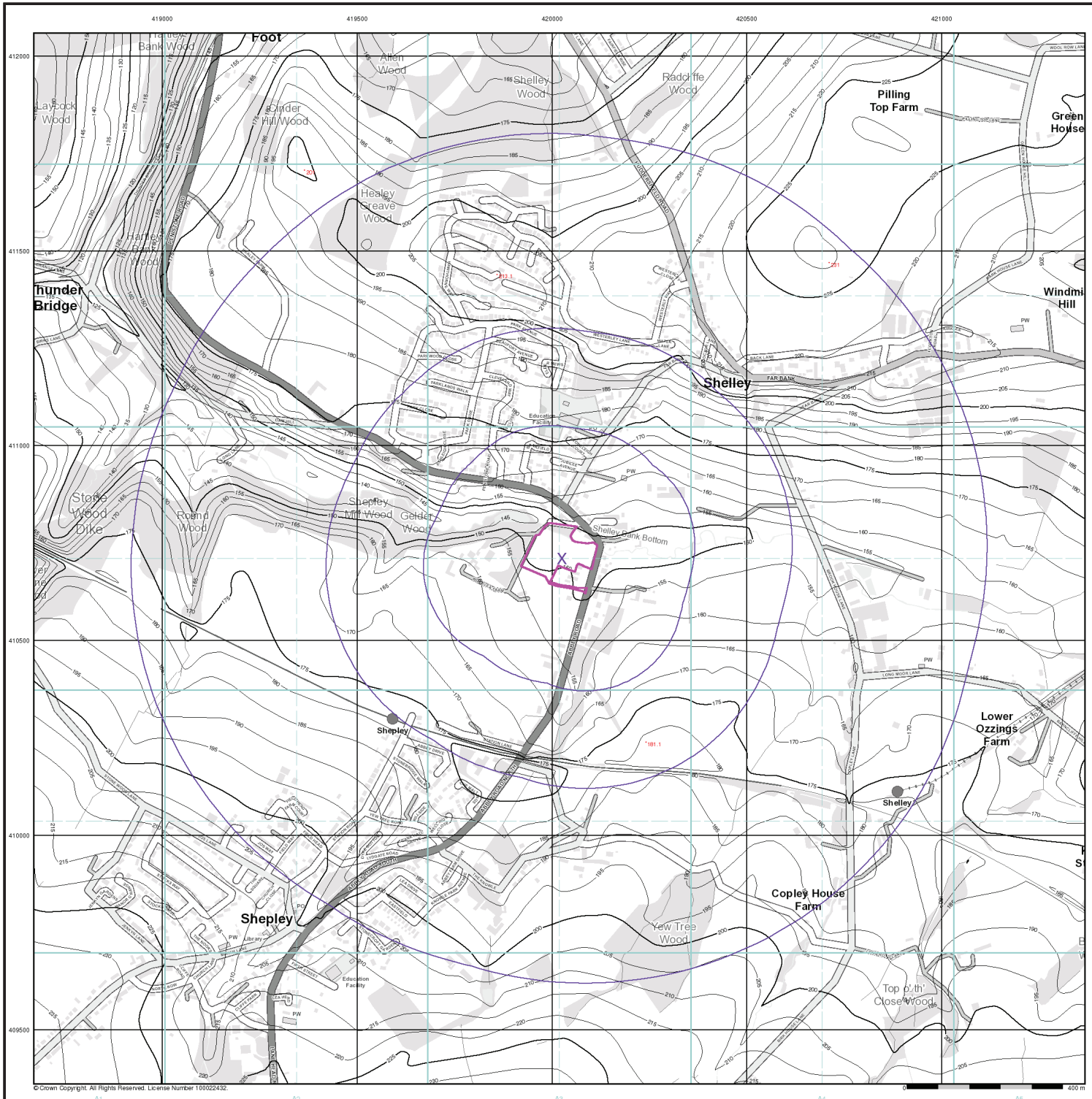

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FAIRHURST

EA/NRW Historic Flood Map (1:10,000)

General

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

Historic Flood Events Data

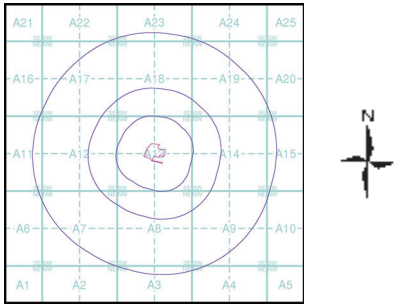
- Channel Capacity Exceeded (no raised defences)
- Groundwater/High Water Table
- Local Drainage/Surface Water
- Mechanical Failure
- Obstruction/Blockage - Bridge
- Obstruction/Blockage - Channel
- Obstruction/Blockage - Culvert
- Obstruction/Blockage - Debris Screen
- Operational Failure/ Breach of Defence
- Other
- Overtopping of Defences
- Unknown
- Historical Flood Liabilities

Contours (height in metres)

Standard Contour 105
Master Contour 100
Spot Height 157.8

MLW Mean Low Water
MHW Mean High Water

EA/NRW Historic Flood Map - Slice A



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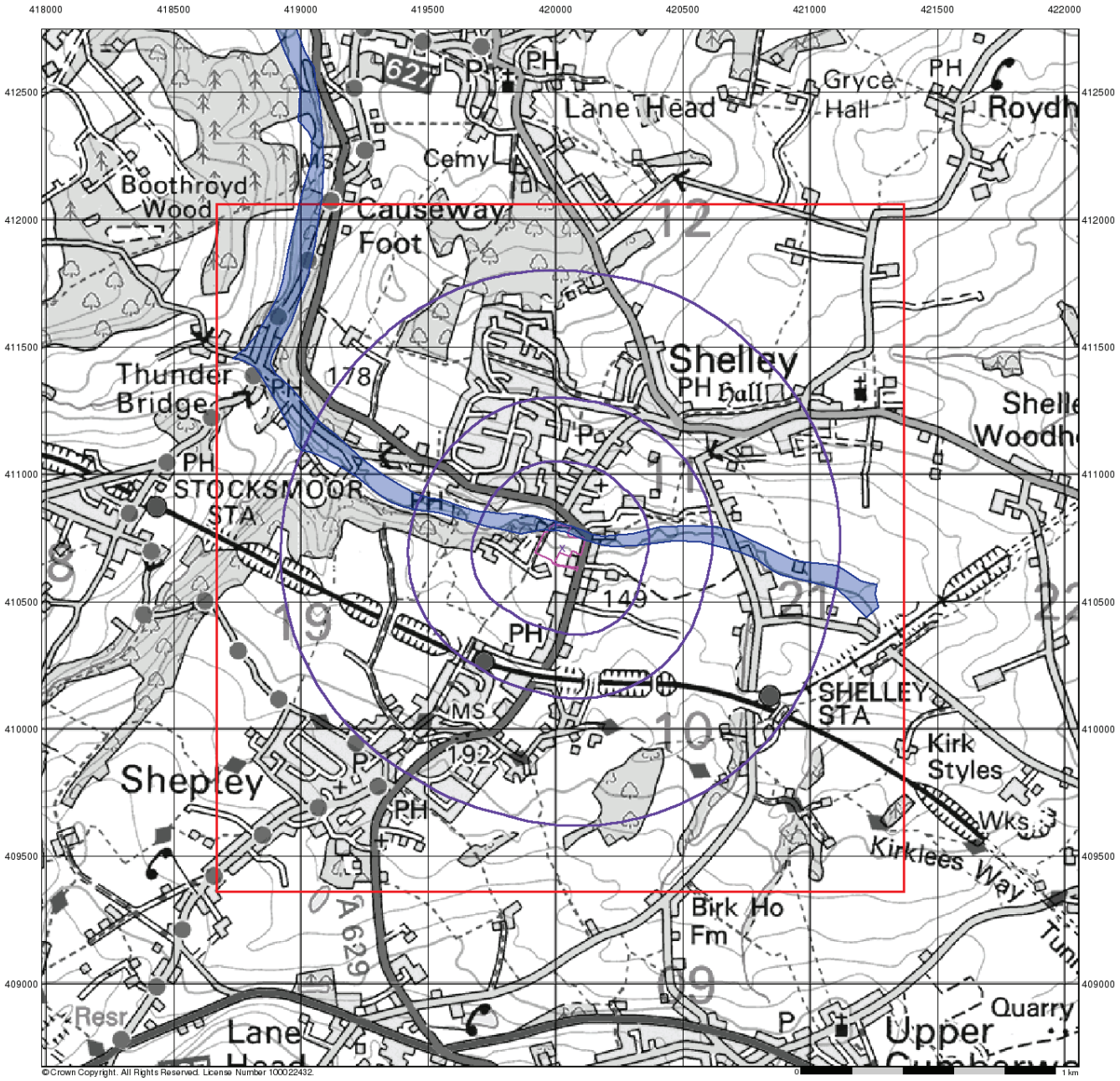

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BGS Flood Data (1:50,000)

General

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

Slice | Map ID

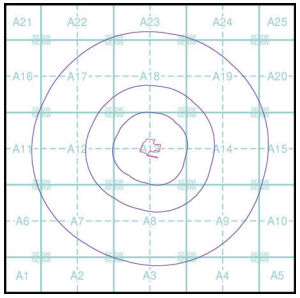
BGS Geological Indicators of Flooding

Coastal

Inland

Bodies of Water

BGS Flood Data Map - Slice A



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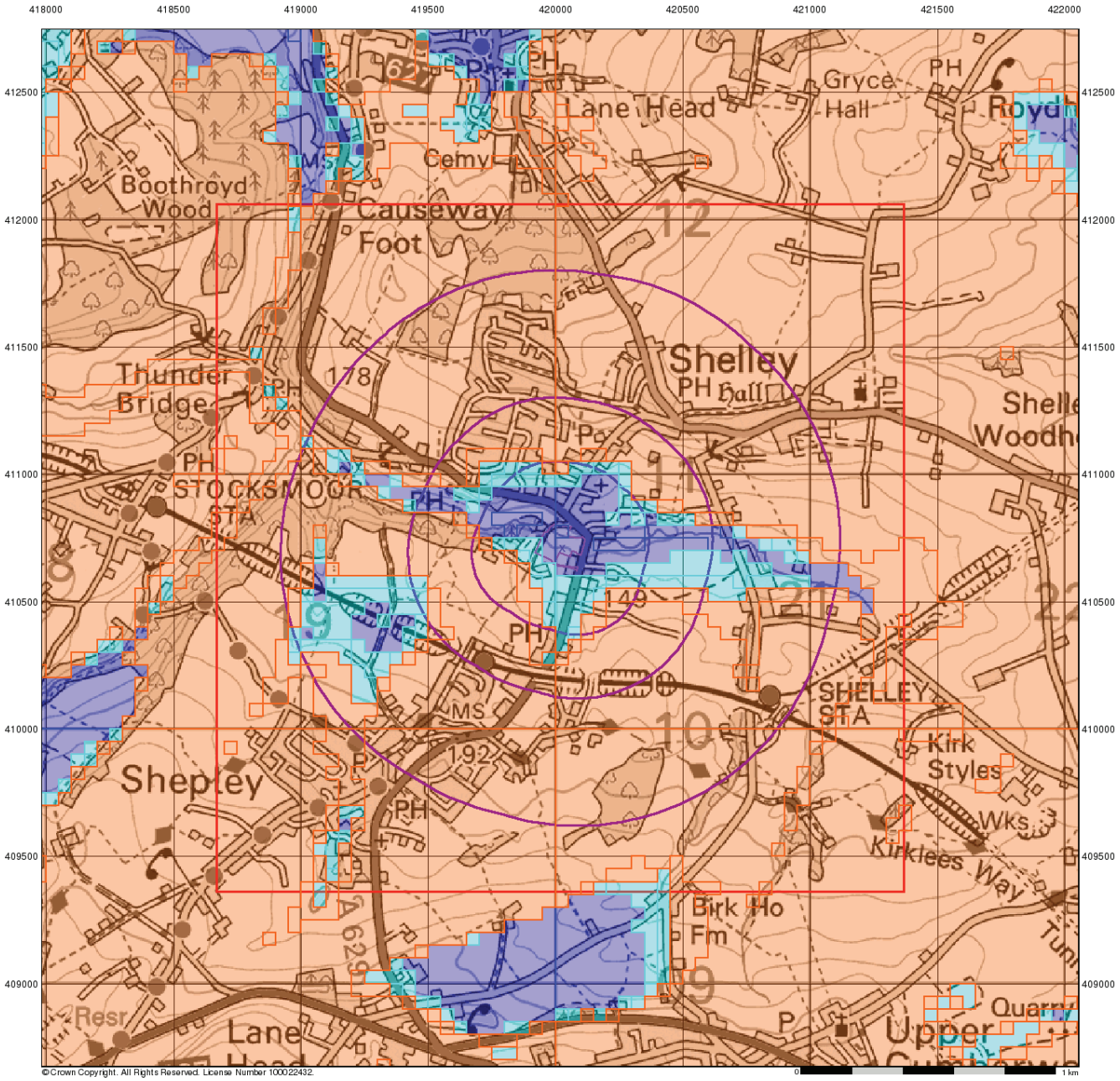


FAIRHURST

BGS Flood Data (1:50,000)

General

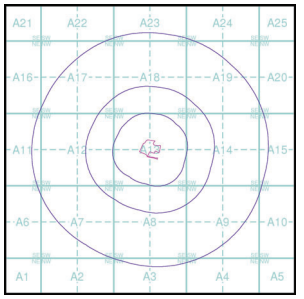
Specified Site | Specified Buffer(s) | Bearing Reference Point

Slice | Map ID

BGS Groundwater Flooding Susceptibility

- Potential for Groundwater Flooding to Occur at Surface
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Limited Potential for Groundwater Flooding to Occur

BGS Flood Data Map - Slice A



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Site Details

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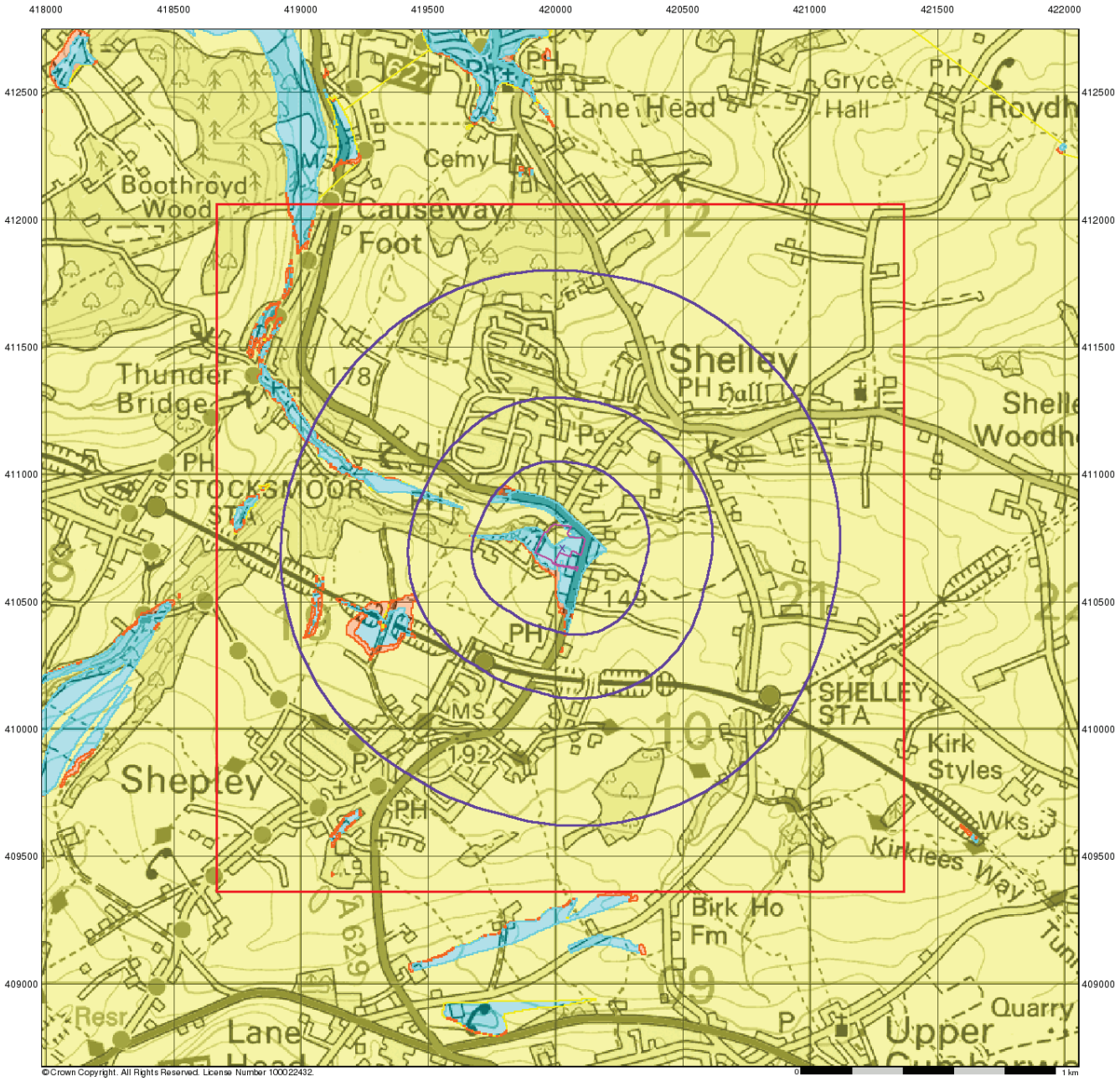


FAIRHURST

GeoSmart Information Groundwater Flood Map (1:50,000)

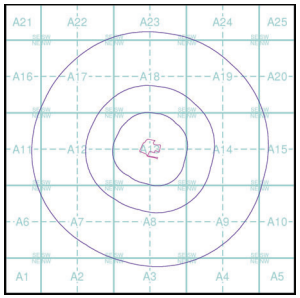
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

GeoSmart Information Groundwater Flooding Risk

- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk

GeoSmart Information Groundwater Flood Map - Slice A



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Site Details

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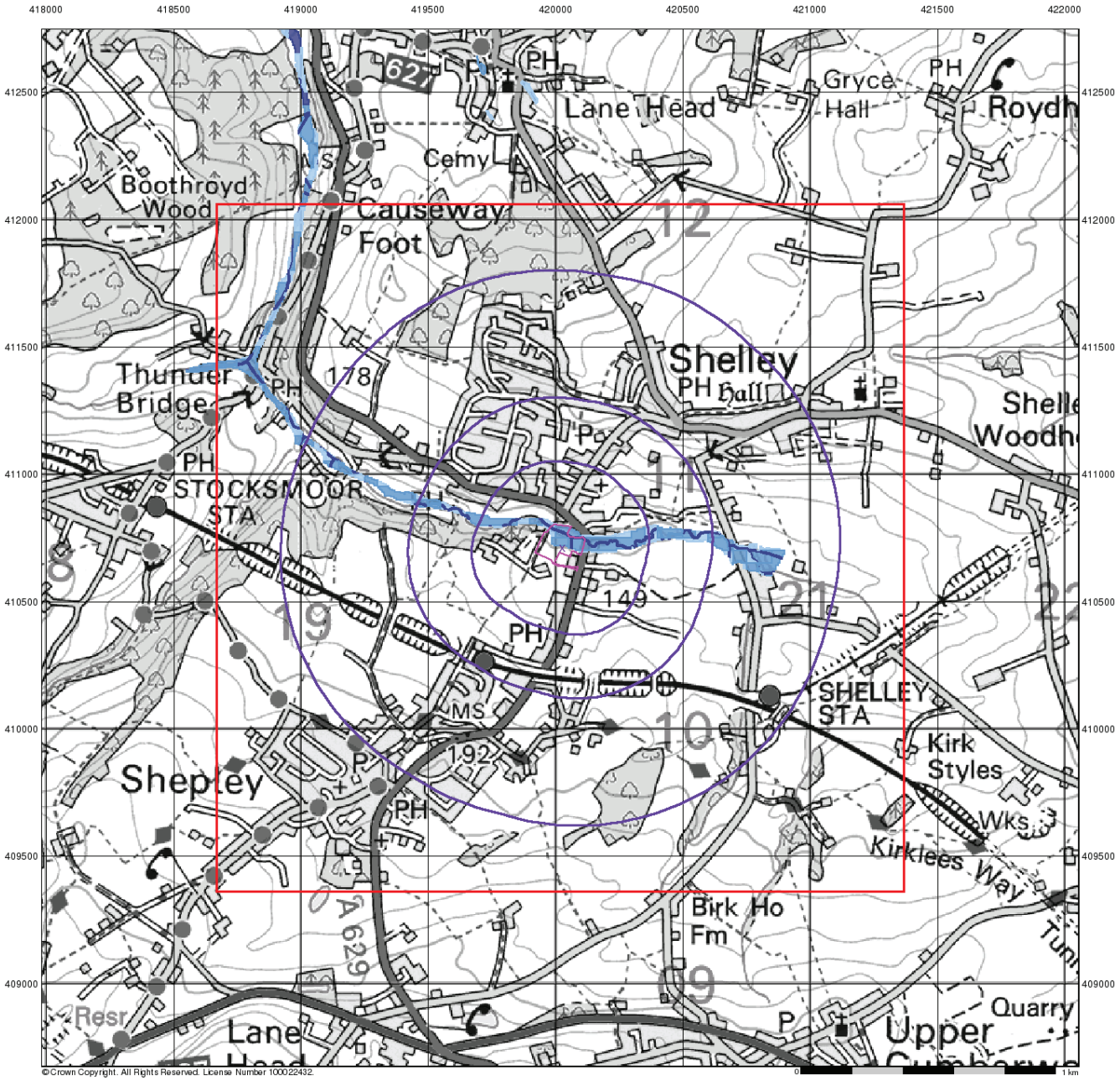

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EA/NRW RoFRS Data (1:50,000)

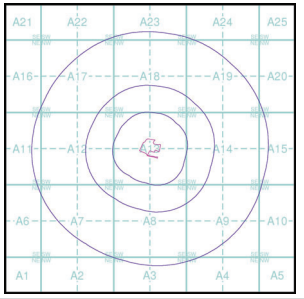
General

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

Risk of Flooding from Rivers and Sea (RoFRS)

- High Risk
- Medium Risk
- Low Risk
- Very Low Risk

EA/NRW RoFRS Data Map - Slice A



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Site Details

177, Abbey Road, Shepley, HUDDERSFIELD, HD8 8DY

engineering solutions, delivering results

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51a St. Paul's Street
Leeds, LS1 2TE

TEL: 0113 243 4671 FAX: 0844 381 4412
Email: leeds@fairhurst.co.uk
Website: www.fairhurst.co.uk

Our Ref: **119607/L1/RT/JA**

Date: **30th March 2017**

Environment Agency
External Relations Team
Lateral House
8 City Walk
LEEDS
LS11 9AT

ABERDEEN
BIRMINGHAM
BLACKBURN
BRISTOL
DUNDEE
EDINBURGH
ELGIN
GLASGOW
INVERNESS
LEEDS
LONDON
MANCHESTER
NEWCASTLE
SHEFFIELD
WATFORD

Dear Sir/Madam,

119607: Land off Abbey Road, Shepley, HD8 8DY

We would like to enquire about flooding on the above mentioned site. The site is situated off Abbey Road in Shepley, at national grid reference 420031, 410738 and is shown on the enclosed drawings. We are particularly interested in the following information:

- Flood levels of any adjacent watercourses to the site
- Historical flood events affecting the site and immediate adjacent land
- Flood zone classification of the site
- Flood defences which may benefit the site.

We understand that there is now no fee for the required information.

If you have any queries or require any additional information then please do not hesitate to contact me.

Yours sincerely,

Richard Turner
Graduate Engineering Geologist

Email: richard.turner@fairhurst.co.uk
Tel: 01132434671

Chairman: R B McCracken Senior Partner: R Bryson
Partners: AJ Connell M Peden PA Ridge P McMillan AR Milne GL Bruce JM Stevens DJ Clayton J McKay JM Message PDWard NM McSpadden AJ Scott-Kiddie CA Clark
Financial Partner: MJ Cullen

Use of Environment Agency Information for Flood Risk / Flood Consequence Assessments

Important
If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:-

http://www.environment-agency.gov.uk/research/planning/33580.aspx

Depending on the enquiry, we may also provide advice on other issues related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

In **England**, you should refer to the Environment Agency's Flood Risk Standing Advice, the technical guidance to the National Planning Policy Framework and the existing PPS25 Practice Guide for information about what flood risk assessment is needed for new development in the different Flood Zones. These documents can be accessed via:

http://www.environment-agency.gov.uk/research/planning/82587.aspx

http://www.communities.gov.uk/publications/planningandbuilding/nppftechnicalguidance

http://www.communities.gov.uk/publications/planningandbuilding/pps25guideupdate

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

In **Wales,** you should refer to TAN15 for information about what flood consequence assessment is needed for new development in the different flood zones
http://new.wales.gov.uk/splash;jsessionid=8ylGTfGZthmB0t2vhp6hS1GcB1LXvZzB3Ylczf20Xn7LK3zK0nMk!981825250?orig=/topics/planning/policy/tans/tan15/

You should also consult the Strategic Flood Consequence Assessment if one has been produced by your local planning authority.

In both **England and Wales** you should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk / Consequence Assessment (FRA / FCA) where one is required, but does not constitute such an assessment on its own.

2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. The information produced by the local planning authority referred to above may assist here.

3. Where a planning application requires a FRA / FCA and this is not submitted or deficient, the Environment Agency may well raise an objection.

4. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your local planning authority.

Richard Turner

From:
Sent: 12 April 2017 12:13
To: Richard Turner
Subject: Your Enquiry: RFI/2017/43370
Attachments: flood risk & flood consequence assessments.pdf; Flood Map for Planning.pdf

Our Ref: RFI/2017/43370

Your Ref: 119607/L1/RT/JA

Dear Richard

Provision of Product 4 for Land off Abbey Road, Shepley, HD8 8DY

Thank you for your request of 30 March 2017 to use Environment Agency data, Product 4, in the development of the FAR for the above site. The available information is attached.

If you have requested this information to help inform a development proposal, then you should note the detail in the attached advisory text on the use of Environment Agency Information for Flood Risk Assessments.

Supporting Information

The Flood Map for Planning
The Environment Agency provides the Flood Map (see enclosed extract).

What is the Flood Map for Planning?

The Flood Map for Planning provides information on flooding from rivers and the sea for England and Wales. The Flood Map also has information on flood defences and the areas benefiting from those flood defences.

The Flood Map for Planning shows the following:

1. Flood Zone 3 (dark blue area on the enclosed map): natural flood plain area that could be affected by flooding from rivers and/or the sea – not taking into account the presence of any flood defences
   - For flooding from rivers the map indicates the extent of a flood with a 1% (1 in 100) chance of happening each year;
   - For flooding from the sea the map shows the extent of a flood with a 0.5% (1 in 200) chance of happening each year.

2. Flood Zone 2 (light blue area): natural flood plain area that could be affected by flooding from rivers and/or the sea – not taking into account the presence of any flood defences. Flood Zone 2:
   - indicates the extent of a flood with a 0.1% (1 in 1000) chance of happening each year.
   - and/or indicates the greatest recorded historic flood, whichever is greater.

3. Flood defences built in the last five years to protect against river floods with a 1% (1 in 100) chance of happening each year, together with some natural or constructed entities which retain, store or channel water and which may protect against smaller floods.

Flood History
Flood History – None available

To the best of our knowledge there is no known flood history for this site. For local drainage information please contact your water utility company and your local council.

Please note that this record doesn't include the 2015 flood extents. The process of recording, verifying and updating our record from major floods is an extensive process and may take a considerable amount of time.

Water causing flooding can come from different places, for example from rivers or the sea; surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system); overflowing or backing up of sewers or drainage systems which have been overwhelmed or from groundwater rising up from underground aquifers.

Currently the Environment Agency can only supply flood risk data relating to the risk of flooding from rivers or the sea. However you should be aware that in recent years, there has been an increase in flood damage caused by surface water flooding or drainage systems that have been overwhelmed. Local Authorities and/or Water Companies may be able to provide some knowledge on the risk of flooding from sources other than rivers and the sea and we are working with these organisations to improve knowledge and understanding of surface water flooding.

Assets

There are no flood defences helping to reduce flood risk in your area of interest.

Modelling

Modelling Information

We do not have any modelling information at this location.

Climate Change

Please note that new guidance on climate change allowances for Flood Risk Assessments has been published in February 2016.
The new guidelines are available from:
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

River

Non Main River

The watercourse at this location is not designated as Main River. It is classed as an Ordinary Watercourse. The local authority holds responsibility for the maintenance of this river. The Environment Agency does not have any more information available in regard to past flooding issues or current flood risk. For any information on any past flooding and for any record of the impact of local drainage on that watercourse we suggest you speak to your City Council Drainage Section and to Yorkshire Water.

Other

Surface Water Map

In partnership with Local Authorities, we publish Risk of flooding from surface water maps. These were updated in December 2013. If you would like a copy of the map for your area, please contact us again.

Surface Water Drainage

The Lead Local Flood Authority is the statutory consultee for planning matters relating to surface water drainage, therefore it is recommended they should be consulted separately regarding this.

Surface water discharge from new development should ideally 'mimic' the pre-development situation using a sustainable drainage system so that the flow and volume of water in watercourses is not increased.

A permit may be required, under the Environmental Permitting Regulations 2010 from the Environment Agency for any proposed works or structures in, under, over or within eight metres of a 'main river' (e.g. a new outfall). A permit is separate to and in addition to any planning permission granted. Further details and guidance are available on the GOV.UK website: https://www.gov.uk/guidance/flood-risk-activities-environmental-permits

Risk of Flooding from Reservoirs Map

Outlines and simplified depth and velocity maps can be viewed on our website: http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=reservoir&scale=1&textonly=off&ep=map&layerGroups=default&lang=_e&y=355134&x=357683#x=438988&y=406600&scale=2

Please, zoom into the location of interest, and then click on the inundated location for details. As a result a list of reservoirs will be provided with supporting information and a links to other data, such as estimated depths and speed of flooding, at the bottom of the result page.

A map of showing the outlines can also be provided on request.

Flood Warning

The site is covered by a Flood Warning. To register to receive this service, you can call Floodline 24 hours a day on 0845 988 1188.

LIDAR Data

Please note that our LiDAR data is now available free of charge (Open Data) from http://environment.data.gov.uk/ds/survey/index.jsp#/survey (once zoomed to the relevant location the available LiDAR products will be listed below the map).

Two LIDAR products are available:

1. Tiled LIDAR data - The full tiled dataset consists of historic LIDAR data which has been gathered since 1998. For some areas we have carried out repeat surveys and data is available in a range of resolutions.
2. Composite LIDAR data - The composite dataset is derived from a combination of our full tiled dataset which has been merged and re-sampled to give the best possible spatial coverage.

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. This technique results in the production of an accurate, cost-effective terrain model suitable for assessing flood risk and other environmental applications.

The Environment Agency owns two LIDAR systems, which are installed in a survey aircraft along with its other operational remote sensing instruments.

The aircraft is positioned and navigated using Global Positioning System (GPS) corrected to known ground reference points. The aircraft typically flies at a height of about 800 metres above ground level and a scanning mirror allows a swath width of about 600 metres to be surveyed during a flight.

The Rights & Responsibilities of a Riverside Owner

The owner of property adjacent to a watercourse is usually deemed to be the riparian owner and, as such, has both riparian rights and responsibilities with regard to the watercourse within their ownership.

The responsibility for general maintenance and repair of the watercourse and its banks rests with the riparian owner. For more information on Rights and Responsibilities of a riverside owner, you can visit our website at: https://www.gov.uk/government/organisations/environment-agency go to the Flooding and coastal change section and click on 'Riverside ownership: rights and responsibilities ('living on the edge') under the River maintenance section and download the 'Living on the Edge' booklet.

Alternatively type the following address into your web browser: https://www.gov.uk/government/publications/riverside-ownership-rights-and-responsibilities

Ordnance Survey Data

Under the terms of our licence agreement with the Ordnance Survey, we are unable to supply the OS data. Under this agreement we can only supply OS data to consultants/contractors carrying out work on our behalf.

Flood Portal
It's a new 'one-stop shop' web portal providing guidance and information on flood risk management in the UK. Arup have written and designed the site, in conjunction with CIRIA, the Local Government Association, the EA and Defra, primarily as a resource for local authority officers, flood risk management professionals, and others with an interest in flood risk. It's a part of the Capacity Building Strategy.
http://www.local.gov.uk/floodportal

This information is provided subject to the Open Government Licence (here) - please read for details of permitted use.

If you have any queries or would like to discuss the content of this letter further please contact us on the telephone number below.

We would be really grateful if you could spare five minutes to help us improve our service. Please click on the link below and fill in our survey – we use every piece of feedback we receive:

http://www.smartsurvey.co.uk/s/EnvironmentAgencyCustomerSurvey/?a=Y

Yours sincerely,

Victoria

Victoria Payne | **Customers and Engagement Officer**
Environment Agency | Lateral, 8 City Walk, Leeds, LS11 9AT
Enquiries Team Tel: 020 847 48174| Email: neyorkshire@environment-agency.gov.uk
Direct Tel: 0208 4747864| Email: victoria.payne@environment-agency.gov.uk

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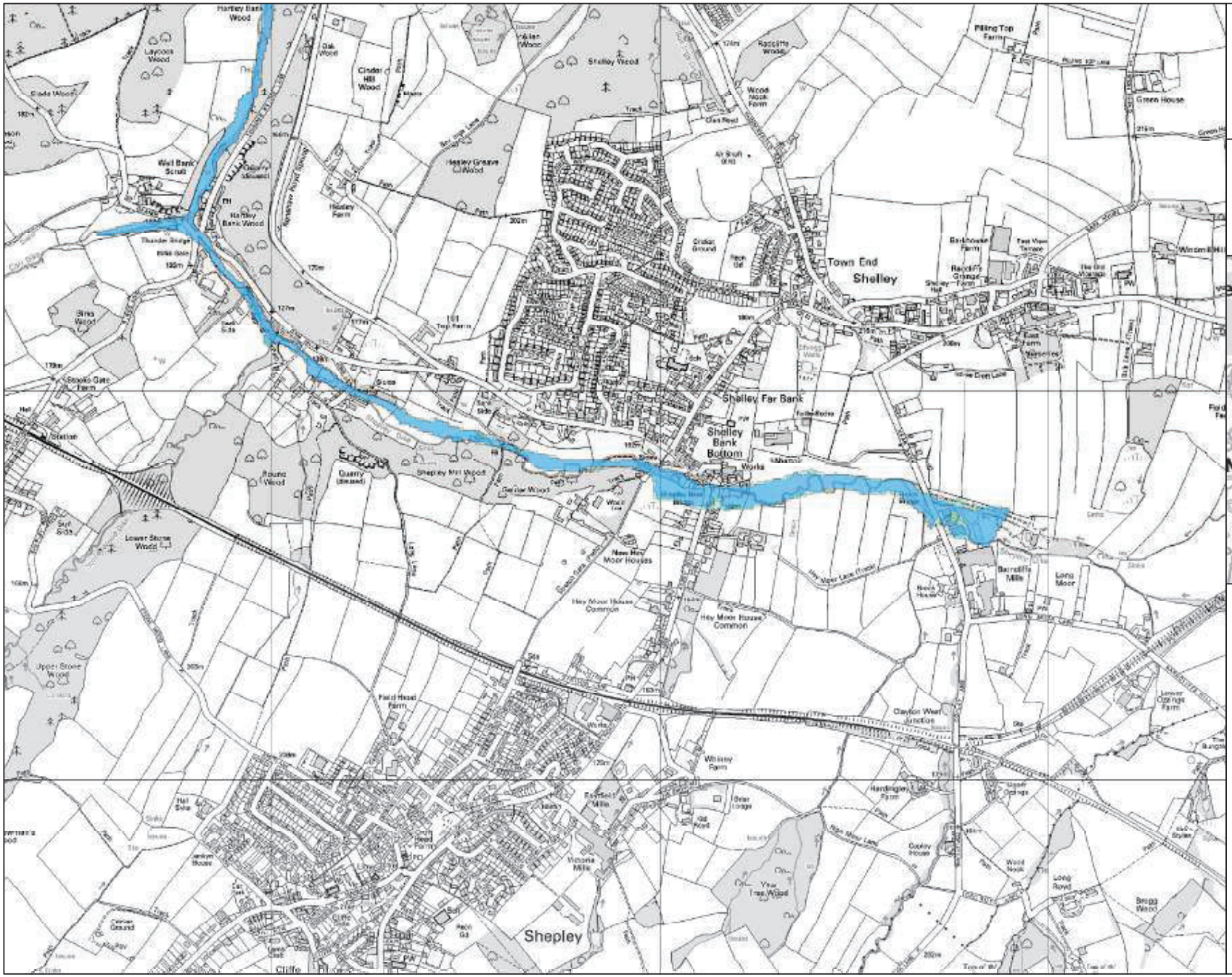
RFI: 47730 Flood Map for Planning - Land off Abbey Road, Shepley Date: 10/4/17



Environment Agency

www.environment-agency.gov.uk

Scale: 1:10,000

when reproduced @ A3

N W E S



LEGEND

- Flood Zone 3 (FZ3)
- Flood Zone 2 (FZ2)

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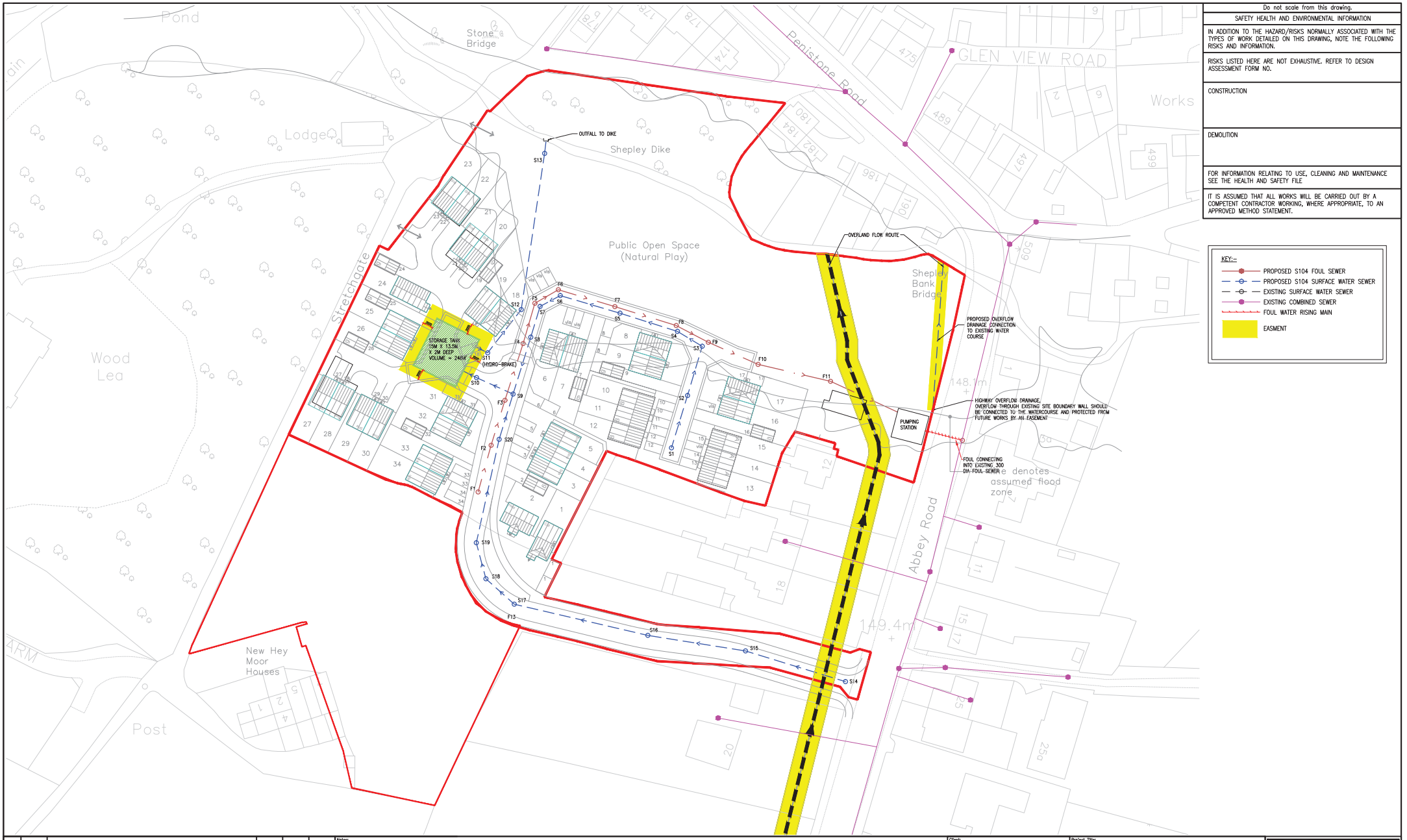
Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

APPENDIX D

Proposed Drainage Design



Do not scale from this drawing.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO.

CONSTRUCTION

DEMOLITION

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

KEY:-

- PROPOSED S104 FOUL SEWER
- PROPOSED S104 SURFACE WATER SEWER
- EXISTING SURFACE WATER SEWER
- EXISTING COMBINED SEWER
- FOUL WATER RISING MAIN
- EASMENT

Rev.	Date	Description	Drawn	Checked	Approved
B	06/06/17	LATEST SITE LAYOUT INCORPORATED, DRAINAGE AMENDED TO SUIT.	JC	RT	FT
A	21/04/17	TANK VOLUME AND PROPOSED FOUL LAYOUT AMENDED. PUMPING STATION, FOUL RISING MAIN, OVERFLOW PIPE & CLIENT ADDED.	JC	RT	FT

Notes:

Client:
CLIPPER HOLDINGS II S.A.R.L

Project Title:
PROPOSED HOUSING DEVELOPMENT
ABBEY ROAD
SHEPLEY

Drawing Title:
PROPOSED DRAINAGE LAYOUT

FAIRHURST
51a St. Pauls Street,
LEEDS, LS1 2TE
Tel: 0113 243 4671 Fax: 0844 381 4412

Scale at A1:	Status:	
1:500	Preliminary	
Drawn:	Checked:	Approved:
MS	RT	WN
Date:	Date:	Date:
12/04/17	12/04/17	12/04/17

Drawing No.: 119607/7001 Revision: B

APPENDIX E

Liaison with Regulator

Kirklees COUNCIL

Planning
Investment and Regeneration Service
PO Box B93, Civic Centre 3,
Off Market Street, Huddersfield, HD1 2JR

Pre-Application Consultation Request

Town and Country Planning Act 1990

Observations By:	**KC Strategic Drainage**

Application No.	**2017/20026**
Proposed Development:	**Pre-application for erection of 35 dwellings with associated access**
Location:	**Land at Abbey Road North, Shepley, Huddersfield, HD8 8DY**
Applicant/Agent:	**Savills UK Ltd**

Comments

Main River Flood Risk

This site is located in areas shown under flood zones 1, 2 and 3. A flood risk assessment will be required to be submitted. Early dialogue with the Environment Agency is advised assessing predicted flood levels against detailed topography and including a full assessment of the effects of climate change.

The layout promoted may be compromised as a result of a detailed assessment. A sequential approach is advised based on this full assessment.

Ordinary Watercourse

In addition to main river flood risk, a tributary to Shepley Dike runs in culvert adjacent to Abbey Road North no.'s 12-20 before entering the site becoming open in nature before discharging to main river. The open section is heavily silted and required long term management.

This watercourse is not modelled but will carry flood risk with it. A suitable stand-off distance will be required based on the size, depth and condition of the culverted section.

Kirklees policy is to open up culverted sections as part of the application.

Kirklees COUNCIL

Planning
Investment and Regeneration Service
PO Box B93, Civic Centre 3,
Off Market Street, Huddersfield, HD1 2JR

Stand-off distances can be increased to incorporate overland flow routes. This constraint is likely to affect layout and one plot shown on indicative plans is likely to be objected to.

Surface Water Flood Risk

In addition to the risk presented by the ordinary watercourse described above, catchment overland flow routes for surface water flooding affect the north east section of the site which shows a property on the indicative layout. With the presence of the culvert itself, a plot in this area is likely to be objected to.

Remaining areas of surface water flood risk co-inside with that of main river flood risk.

There is a flood history around the site. In 2008 reports of flooding on the site adjacent to number 12 were logged with the Council.

The culvert has collapsed in the past upstream of the site causing flooding.

Surface Water disposal

BGS data suggests infiltration is unlikely to work close to the watercourse. A connection to main river at greenfield rates is therefore envisaged.

This may require to be offset by discharges (greater than greenfield run off) made from the current development of 4 and 3 houses under separate application. Temporary road soakaways will need to be replaced in a more robust design for the access road. Early dialogue with Kirklees Flood Management is advised.

The attenuation tank should be assessed for surcharging against the outfall to main river and its location in relation to potential river flooding for the 1 in 100 + climate change event.

Climate change for pluvial flooding should remain at 30% for housing developments. The tank should accommodate the critical 1 in 30 year storm and the 1 in 100+ climate change critical event should be stored on site in a safe manner. This is often within the attenuation on residential developments.

Alternative storage can be considered in line with West Yorkshire Combined Authority guide for SUDS. Kirklees Council however do not currently adopt SUDS features and Yorkshire Water is extremely limited in terms of adoption of potential SUDS features.

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Investment and Regeneration Service
PO Box B93, Civic Centre 3,
Off Market Street, Huddersfield, HD1 2JR

Additional Information

Records show existing highways drainage from Abbey Road North discharging into the site via an overflow pipe. This will need picking up in the application and providing a formal solution including access rights.

A temporary drainage scheme for the construction phase will be required to protect the watercourse from pollution and sedimentation.

The LPA has an obligation to ensure the maintenance and management of SUDS systems on major developments for the lifetime of the development. We advise that this is incorporated into a section 106 undertaking.

Large diameter attenuation pipes and culverts (above 900mm) could be regarded as structures and pose problems for highway adoption. We advise the developer to look to position these outside the adoptable highway where reasonably practicable to do so. Where this may be a problem, early dialogue with our Structures and Section 38 department is advised.

Signed: Paul Farndale

Date: 27th February 2017

Richard Turner

From: Paul Farndale
Sent: 12 April 2017 10:36
To: Richard Turner
Subject: Abbey Road North
Attachments: abbey road north.pdf

Hello Richard,

The attached plan is a guide only. Dark blue line = enclosed, states 1200mm x 900mm but will need verifying as will depth to give you the appropriate industry stand off as per Sewers for Adoption 6th Edition. We may need greater depending on surface flood routing which will need to avoid property and property curtilage. Discussions are required where that cannot be the case.

The culvert will cross the access further up.

Light blue solid line represents a surface flow not picked up on OS outlines.

Dashed light blue lines are highway drains and the corresponding colour circular symbol is a manhole. Note the one in the pavement has a tiny grey line poking through the wall. This is an overflow. It will need picking up and taking to the watercourse. Highways will need an easement to protect it from building over in the future.

Hope this helps for now.

Regards,

Paul Farndale
Principal Engineer
Flood Management & Drainage
Investment & Regeneration Service
Kirklees Council
01484 221000

Website | News | Email Updates | Facebook | Twitter

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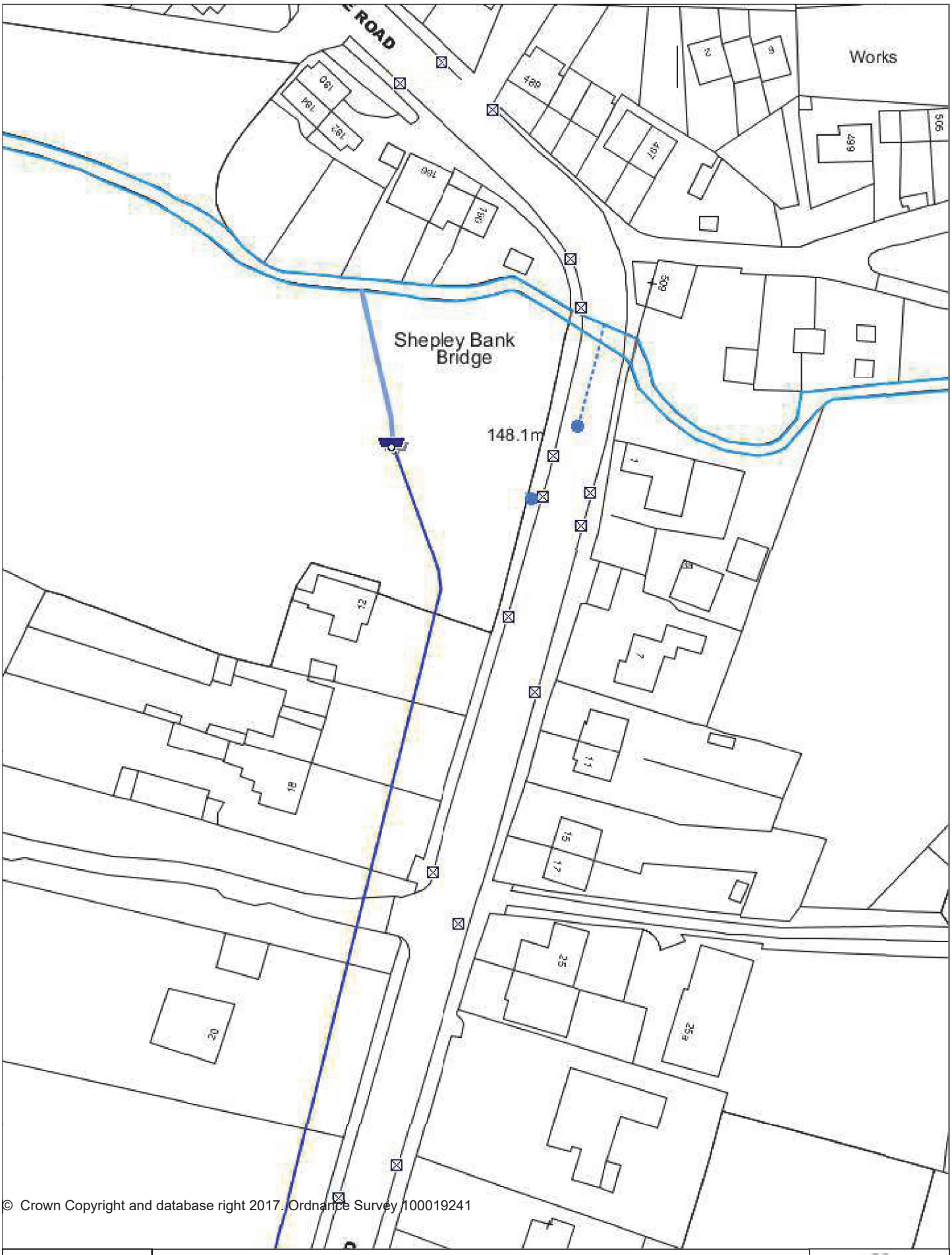

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Kirklees COUNCIL
Kompass
Tel: 01484 221757 (Internal 860 1757)E-Mail: maps@kirklees.gov.uk

20 m

Scale = 1 : 952.560

N
W E
S

Yorkshire Water Services
Developer Services
Sewerage Technical Team
PO BOX 52
Bradford
BD3 7AY

Tel: 0345 120 8482
Fax: (01274) 372 834

Email:
Technical.Sewerage@yorkshirewater.co.uk

For telephone enquiries ring:
Bethanie Scully on 0345 120 8482

Fairhurst
51a St Pauls Street
LS1 2TE

For the attention of Richard Turner

Your Ref:
Our Ref: T005449

10th April 2017

Dear Mr Turner,

Land West of Abbey Road, Shepley, HD8 8EP - Pre-planning sewerage enquiry on R530612 - Residential

Thank you for your recent enquiry and remittance. Our official VAT receipt has been sent to you under separate cover. Please find enclosed a complimentary extract from the Statutory Sewer Map which indicates the recorded position of the public sewers. Please note that as of October 2011 and the private to public sewer transfer, there are many uncharted Yorkshire Water assets currently not shown on our records.

The following comments reflect our view, with regard to the public sewer network only, based on a 'desk top' study of the site and are valid for a maximum period of twelve months:

Existing Infrastructure

Please note:- due to the change in legislation on 01/10/2011 there may be public sewers within the site boundary which is not recorded on the Statutory Sewer Map the presence of which should be taken into account in the design of the scheme.

Foul Water

Development of the site should take place with separate systems for foul and surface water drainage. The separate systems should extend to the points of discharge to be agreed.

Foul water domestic waste should discharge to the 300 mm diameter public combined sewer recorded in Abbey Road, at a point approximately 10 metres from the east of the site.

Surface Water

The developer's attention is drawn to Requirement H3 of the Building Regulations 2000. This establishes a preferred hierarchy for surface water disposal. Consideration should firstly be given to discharge to soakaway, infiltration system and watercourse in that priority order.

Sustainable Drainage Systems (SuDS), for example the use of soakaways and/or permeable hardstanding etc, may be a suitable solution for surface water disposal appropriate in this situation. You are advised to seek comments on the suitability of SuDS in this instance from the appropriate authorities.

As the proposal site is currently undeveloped no surface water is known to have previously discharged to the public sewer network

As such, the local public sewer network does not have capacity to accept any surface water from the proposed site. If SuDS are not viable, the developer is advised to contact the Environment Agency/local Land Drainage Authority/Internal Drainage Board with a view to establishing a suitable watercourse for discharge.

It is understood that a watercourse is located through the site. This appears to be the obvious place for surface water disposal (if SuDS are not viable).

Please note further restrictions on surface water disposal from the site may be imposed by other parties. You are strongly advised to seek advice/comments from the Environment Agency/Land Drainage Authority/Internal Drainage Board, with regard to surface water disposal from the site.

Other Observations

Any new connection to an existing public sewer will require the prior approval of Yorkshire Water. You may obtain an application form from our website (www.yorkshirewater.com) or by telephoning 0345 120 84 82.

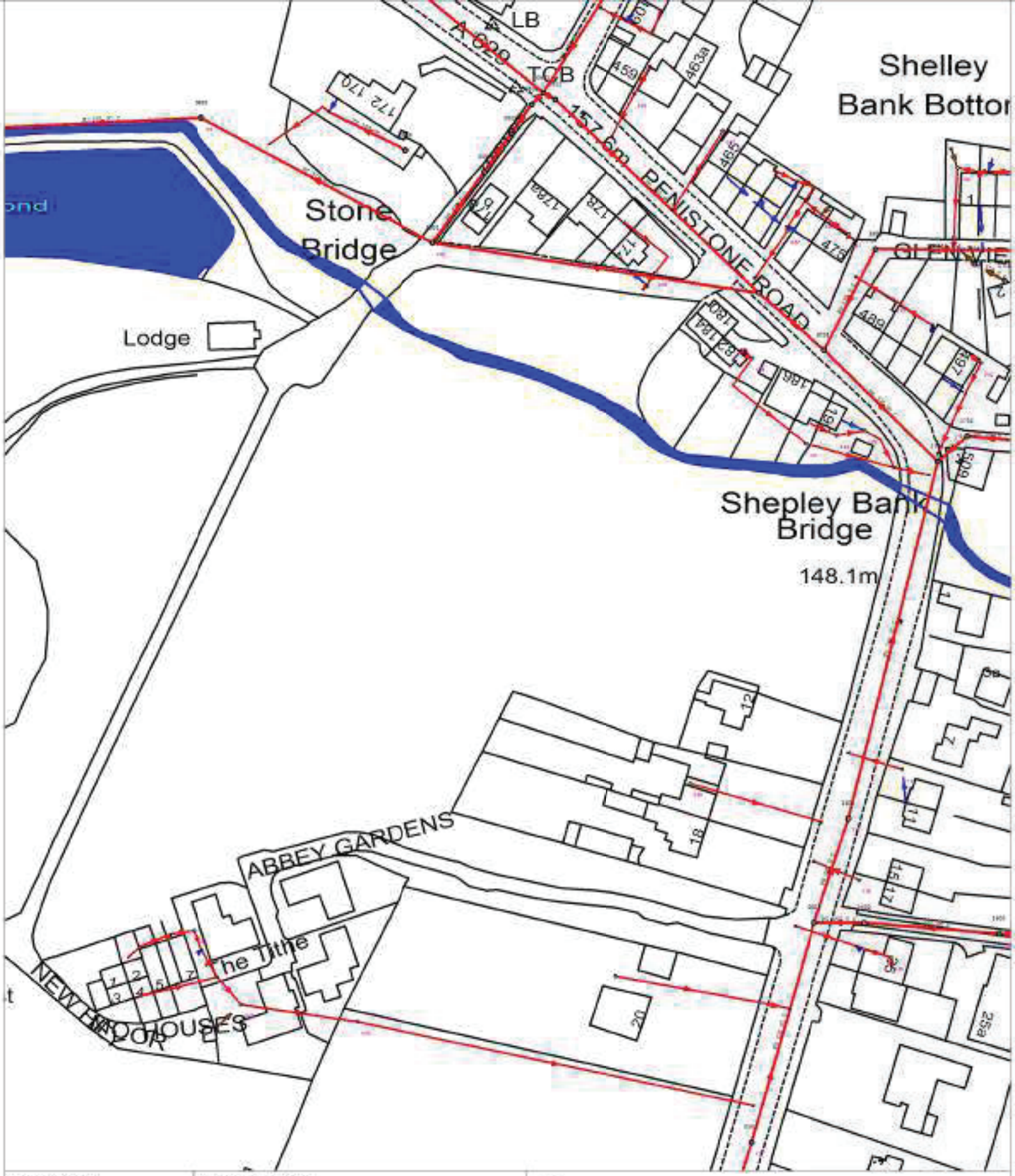
An off-site foul and surface water sewer may be required which may be provided by the developer and considered for adoption under Section 104 of the Water Industry Act 1991. Please telephone 0345 120 84 82 for advice on sewer adoptions. Alternatively, the developer may in certain circumstances be able to requisition off-site sewers under Section 98 of the Water Industry Act 1991 for which an application must be made in writing. For further information, please telephone 0345 120 84 82.

Prospectively adoptable sewers and pumping stations must be designed and constructed in accordance with the WRc publication "Sewers for Adoption - a design and construction guide for developers" 6th Edition as supplemented by Yorkshire Water's requirements, pursuant to an agreement under Section 104 of the Water Industry Act 1991. An application to enter into a Section 104 agreement must be made in writing prior to any works commencing on site. Please contact our Developer Services Team (telephone 0345 120 84 82) for further information.

All the above comments are based upon the information and records available at the present time. The information contained in this letter together with that shown on any extract from the Statutory Sewer Map that may be enclosed is believed to be correct and is supplied in good faith. Please note that capacity in the public sewer network is not reserved for specific future development. It is used up on a 'first come, first served' basis. You should visit the site and establish the line and level of any public sewers affecting your proposals before the commencement of any design work.

Yours sincerely,

Bethanie Scully
Developer Services



419861 : 410540	Map Name : SE1910NE	Title	
YorkshireWater	Yorkshire Water, PO Box 500, Halifax Road, Bradford BD6 2LZ Contact Name : Bethany Scully Contact Tel :	Notes	
		Partial Key Foul Sewer = F Combined Sewer = C Surface Water Sewer = SW Trade Sewer = TC Partially Separate = PS	This plan is furnished as a general guide only and no warranty as to its correctness is given or implied. This plan must not be relied upon in the event of excavations or other works made in the vicinity of public sewers. No house or property connections are shown.
		Date Req : 10/04/2017, 14:40:58	Date Gen : 10/04/2017, 14:41:22
		Source : Sewer Network Enquiry	

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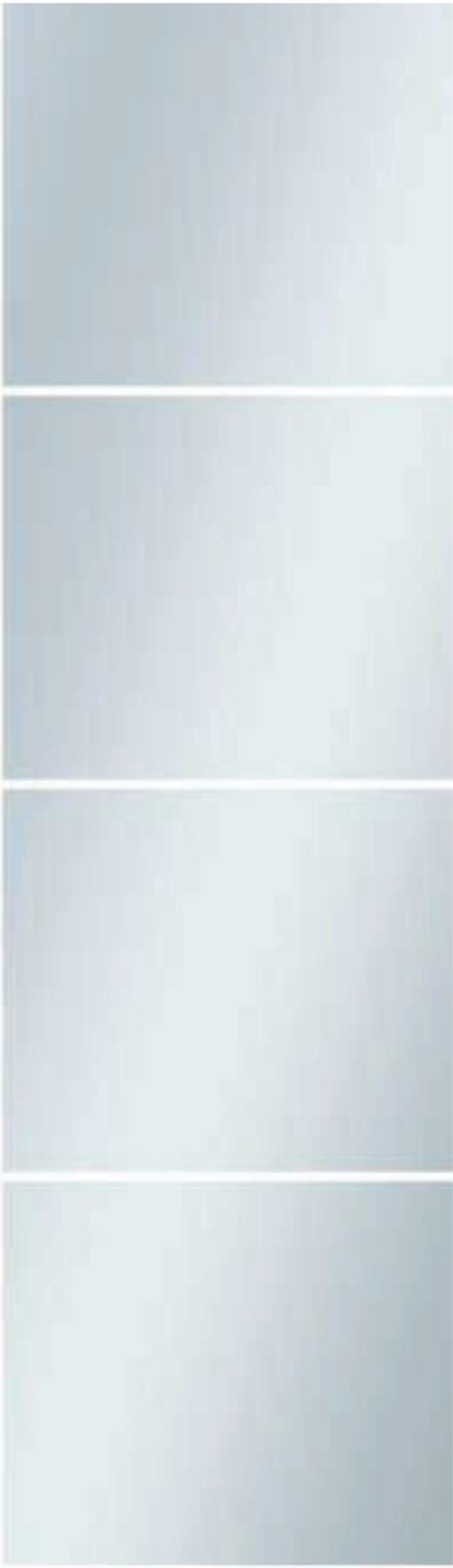
URN: Undefined Originator: Bethany Scully, Land and Planning,



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A T T A C H M E N T 2

ARP Statement on Flood Risk – 1305/11 – 2019

ARP ASSOCIATES
CHARTERED CONSULTING ENGINEERS

1305/11

CAMSTEAD LTD

ABBEY ROAD NORTH

SHEPLEY

RESERVED MATTERS APPLICATION 2019/91879

STATEMENT ON FLOOD RISK ASSESSMENT

Introduction

1. Camstead Ltd are proposing to construct 22No. dwellings on a site off Abbey Road, Shepley. Planning approval had been granted for a previous development and a Reserved Matters Application has been made for the new development layout.

2. A Flood Risk Assessment Report by Fairhurst's, under reference 119607/02A dated June 2017 formed part of the original Planning Application. The report confirms there was no flood modelling of the watercourse which passes through the site. This is specified in Clause 2.6.2 of the Report. Therefore, to give an indication of the minimum floor levels, Fairhurst's interpreted the Environment Agency Flood Map for Planning against the topographical survey to give a final level of 148.6m A.O.D. This is based on a level of 148.0m A.O.D. for a 1 in 100 year plus climate change storm and 600mm freeboard.

3. In preparing the layout for the new development, it was considered that the Fairhurst's assessment of the flood level and finished floor levels was incorrect.

4. ARP Associates have been appointed to carry out an investigation of the flood implication and prepare a Statement to supplement the Reserved Matters Application.

Background

5. The 148.0m contour was marked on the topographical survey for the site and this showed there was a much greater area affected than shown on the Environment Agency Flood Map for Planning. If this contour was utilised as the Flood Zone 3 boundary across the site, then development would be compromised and the site would become unviable.

6. In order to make a more detailed appraisal of this situation, a request was made to Enjoy Design of Leeds (Architects for the scheme) to undertake a comparison of the Environment Agency Flood Map in relation to the topographical survey and a copy of drawing No. 00-105, entitled 'Flood Map' is appended to this Statement for reference. This shows that the Flood Map does not follow the 148.0m contour, as shown in purple on the plan, and the interpretation by Fairhurst's was considered, therefore, to be flawed.

Consultations

7. Consultations were undertaken with the Kirklees Council Land Drainage Department, as Lead Local Flood Authority, and the Environment Agency to discuss the above implications and advise on the proposals, as these are contrary to the Statement in the Flood Risk Assessment Report by Fairhurst's.

8. Both Authorities agreed with the flood boundary assessment.

Proposal

9. The enclosed Enjoy Design drawing No. 00-103, entitled Proposed Site Plan, shows the proposed layout of the new development and superimposes the line of the Flood Zone 3 area from the Environment Agency. It can be seen that the dwellings are all outside the Flood Zone 3 boundary.

10. The finished floor levels to the properties will be designed to allow surface water drainage to be accommodated within the Flood Zone 1 area with an outfall to the watercourse at a restricted greenfield run-off rate of 7l/s, previously agreed for the site. This shows that the

finished floor levels to properties adjacent to the Flood Zone 3 boundary to be between 148.30m - 148.45m A.O.D. It is interpreted that these levels will still be above the 1 in 100 year plus climate change storm and 600mm freeboard and, as roads, drives and gardens will be lower, the flood exceedance route would not compromise any possible flooding to buildings.

Other Matters

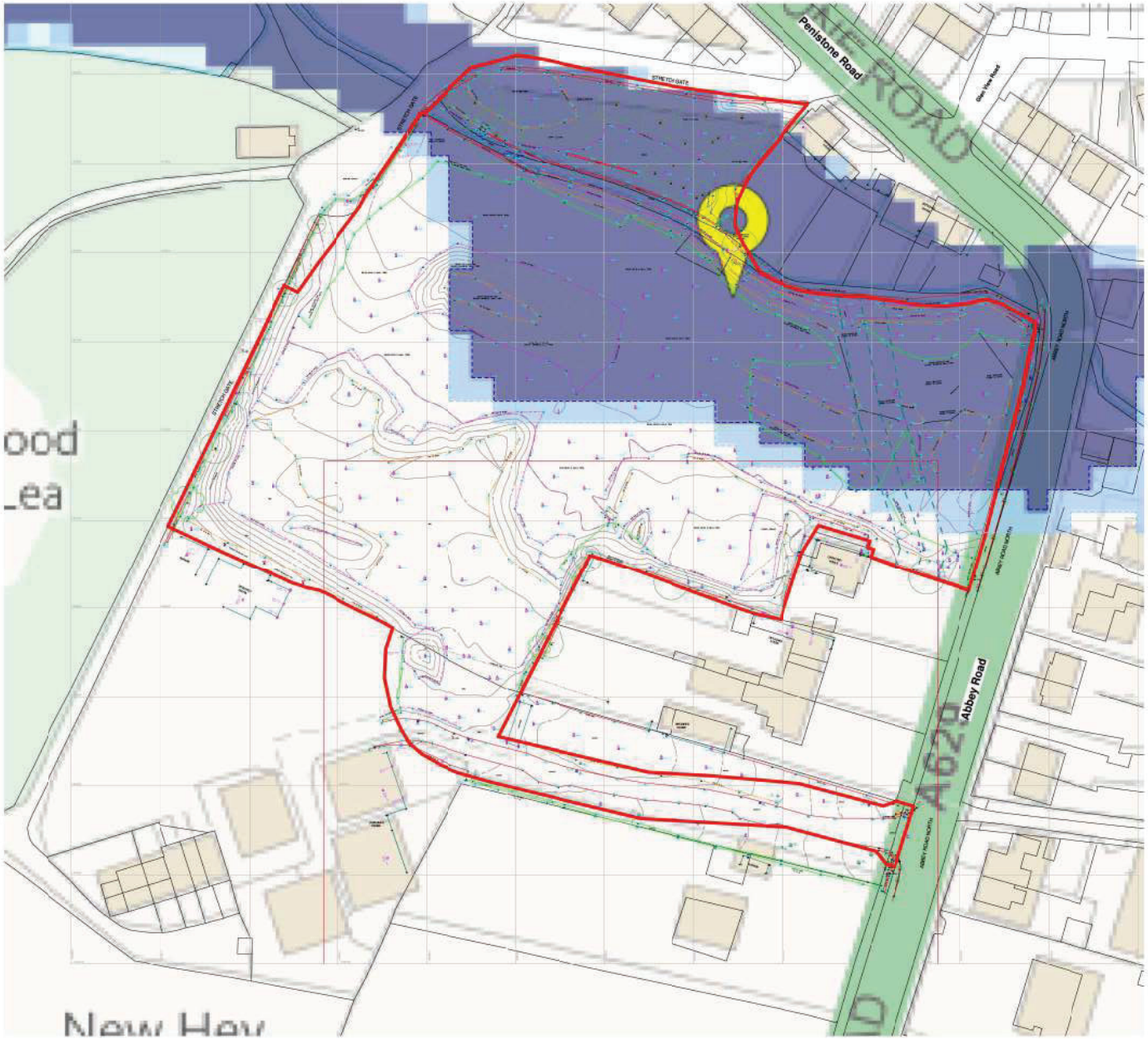
11. It is also a planning condition that the existing culvert passing through the site to the watercourse to the north will be opened up between the boundary of the site and the watercourse. Once the culvert is exposed and the size can be determined, an analysis of the maximum flow from the culvert to the south of the site will be made and the cross sectional area will ensure that the flow will be retained in the channel and will not compromise either the development or the Flood Zone. A typical example of the likely cross section area has been submitted as part of the Reserved Matters Application, but this will be updated when on-site details are obtained.

Summary

12. The proposed development layout shows that the Flood Zone 3 boundary is not compromised and no flood compensatory area/volume is required. Furthermore, the proposal shows that the finished floor levels will be above the interpretated 1 in 100 year plus climate change storm and 600mm freeboard.

13. Roads, drives and gardens levels will be lower than the finished floor level and the flood exceedance route will not result in flooding to buildings.

14. The proposed opening-up of the culvert through the eastern part of the site will be assessed once detailed information is obtained and an open channel will be designed to ensure that water will be retained in the channel and will not cause flooding of adjacent land. Details will be submitted to the Planning Authority for approval under Condition.



Site Plan with EA map
1 : 500

Notes.

00 Series General Arrangement Notes

1. Any areas indicated on the plans are approximate. They relate to the likely areas of the building at the current state of the design and are calculated using the stated eps(NIA) method from the Code of Measuring Practice 5th Edition RICS/EVA. Any decision to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or the like, should include due allowance for design development and building tolerances. Floor areas are subject to Planning, Building Control and other statutory approvals.

2. Any structural services or fit out detail shown is for coordination only, refer to relevant Consultants/Clients information for details.

3. Refer to Enjoy NBS for full outline performance specification of Architectural Elements.

4. THE CONTENT OF THIS DRAWING IS FOR DESIGN INTENT AND REQUIRES FURTHER DESIGN DEVELOPMENT AND COORDINATION WITH ALL RELEVANT CONSULTANTS, SUB CONTRACTORS, SPECIALIST DESIGNERS AND STATUTORY AUTHORITIES.

5. Line of drainage easement, site boundary and extents of flood zone 01 approximate based on overlaid PDF information. Upon determination of exact positions amendments to the proposed layout about may be required.

Contractor must verify all dimensions on site before commencing any work or shop drawings. If this drawing exceeds the quantities taken in any way the Architects are to be informed before the work is initiated. Only figured dimensions to be taken from this drawing. Do not scale off this drawing. Drawings based on Ordnance Survey and / or existing record drawings design and drawing content subject to Site Survey, Structural Survey, Site Investigations, Planning and Statutory Requirements and Approvals. Authorised reproduction from Ordnance Survey Map with permission of the Controller of Her Majesty's Stationery Office. Crown Copyright reserved Enjoy Design Ltd.

Rev.	Drawing Originated Des.	MH By	16/01/2019 Date	WD Ch	Status

The Old Brewery
High Court
Leeds
LS2 7ES
Tel: 0113 242 3622
www.enjoy-design.co.uk

Client: Scotfield Ltd	Job No: 18.019
Project: Abbey Road, Shepley	
Title: Flood Map	
Date: 02/08/19	Scale: As indicated@A1
Checked by: Checker	
Drawing No: 00-105	Drawn By: Author
Revision:	

ENJOY DESIGN



Site Plan
1 : 500

(GIA) Plots 01, 02 - 07, 22		
House	Area	Area sqft
01		
Ground Floor	63.8 m²	686 ft²
First Floor	59.9 m²	645 ft²
	123.7 m²	1331 ft²
02		
Ground Floor	63.8 m²	686 ft²
First Floor	59.9 m²	645 ft²
	123.7 m²	1331 ft²
07-08 (Townhouses)		
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
	252.2 m²	2714 ft²
09-10 (Townhouses)		
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
	252.2 m²	2714 ft²
11		
Ground Floor	58.2 m²	626 ft²
First Floor	73.9 m²	795 ft²
	132.1 m²	1422 ft²
12		
Ground Floor	58.2 m²	626 ft²
First Floor	73.9 m²	795 ft²
	132.1 m²	1422 ft²
13		
Ground Floor	62.7 m²	675 ft²
First Floor	62.7 m²	675 ft²
	125.4 m²	1350 ft²
14		
Ground Floor	62.7 m²	675 ft²
First Floor	62.7 m²	675 ft²
	125.4 m²	1350 ft²
15		
Ground Floor	58.2 m²	626 ft²
First Floor	73.9 m²	795 ft²
	132.1 m²	1422 ft²
16		
Ground Floor	58.2 m²	626 ft²
First Floor	73.9 m²	795 ft²
	132.1 m²	1422 ft²
17-18 (Townhouses)		
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Ground Floor	46.3 m²	498 ft²
First Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
Second Floor	39.9 m²	430 ft²
	252.2 m²	2714 ft²
19		
Ground Floor	57.6 m²	620 ft²
First Floor	70.9 m²	763 ft²
	128.5 m²	1383 ft²
20		
Ground Floor	57.6 m²	620 ft²
First Floor	70.9 m²	763 ft²
	128.5 m²	1383 ft²
21		
Ground Floor	57.6 m²	620 ft²
First Floor	70.9 m²	763 ft²
	128.5 m²	1383 ft²
22		
Ground Floor	62.7 m²	675 ft²
First Floor	62.7 m²	675 ft²
	125.4 m²	1350 ft²
	2293.9 m²	24691 ft²

(GIA) Affordable Plots 03 - 06		
House	Area	Area sqft
Affordabe 03		
Ground Floor	54.6 m²	587 ft²
First Floor	54.6 m²	587 ft²
	109.1 m²	1175 ft²
Affordabe 04		
Ground Floor	54.6 m²	587 ft²
First Floor	54.6 m²	587 ft²
	109.1 m²	1175 ft²
Affordabe 05		
Ground Floor	54.6 m²	587 ft²
First Floor	54.6 m²	587 ft²
	109.1 m²	1175 ft²
Affordabe 06		
Ground Floor	54.6 m²	587 ft²
First Floor	54.6 m²	587 ft²
	109.1 m²	1175 ft²
	436.5 m²	4699 ft²

Areas

Overall Site
1.78ha / 4.4acres

Site allocated for housing
1.07ha / 2.6acres

P.O.S (Public Open Space) requirment
@ 0.2ha per 50 units
= 0.09ha required

P.O.S acheived
0.75ha / 1.9acres

Units

Total Number
22

Of which are affordable
04

1 : 500
0 10 20 30m

Contractor must verify all dimensions on site before commencing any work or shop drawings. If this drawing exceeds the quantities taken in any way the Architects are to be informed before the work is initiated. Only figured dimensions to be taken from this drawing. Do not scale off this drawing. Drawings based on Ordnance Survey and / or existing record drawings, design and drawing content subject to Site Survey, Structural Survey, Site Investigations, Planning and Statutory Requirements and Approvals. Information reproduced from Ordnance Survey Map with permission of the Controller of Her Majesty's Stationery Office. Crown Copyright reserved Enjoy Design Ltd.

Notes.

00 Series General Arrangement Notes

1. Any areas indicated on the plans are approximate. They relate to the likely areas of the building at the current state of the design and are calculated using the stated sq(NIA) method from the Code of Measuring Practice 5th Edition RICS/IVA. Any decision to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or the like, should include due allowance for design development and building tolerances. Floor areas are subject to Planning, Building Control and other statutory approvals.

2. Any structural, services or fit out detail shown is for coordination only, refer to relevant Consultants/Clients information for details.

3. Refer to Enjoy M&S for full outline performance specification of Architectural Elements.

4. THE CONTENT OF THIS DRAWING IS FOR DESIGN INTENT AND REQUIRES FURTHER DESIGN DEVELOPMENT AND COORDINATION WITH ALL RELEVANT CONSULTANTS, SUB-CONTRACTORS, SPECIALIST DESIGNERS AND STATUTORY AUTHORITIES.

5. Line of drainage easement, site boundary and extents of flood zone 01 approximate based on overlaid PDF information. Upon determination of exact positions amendments to the proposed layout about may be required.

Rev.	Des.		By	Date	Ch
B		Alterations to flood zone 3/2 lines and layout	MH	08/02/2019	WD
A		Housing layout changed due to flood zone	MH	22/01/2019	WD
		Drawing Originated	MH	16/01/2019	WD

Preliminary

The Old Bewery
High Court
Leeds
LS2 7ES
Tel: 0113 242 3622
www.enjoy-design.co.uk

Client: Scotfield Ltd
Job No: 18.019
Project: Abbey Road, Shepley
Title: Proposed Site Plan
Date: 06/03/18
Scale: As indicated@A1
Checked by: WD
Drawing No: 00-103
Drawn By: MH
Revision: B

ENJOY DESIGN

A T T A C H M E N T 3

Environment Agency letter – 23rd December 2019

Environment Agency

Our ref: RA/2019/140189/02-L01
Your ref: 2019/91638

Date: 23 December 2019

Mr Christopher Carroll
Kirklees Metropolitan Borough Council
Development Management
PO Box B93
Huddersfield
West Yorkshire
HD1 2JR

Dear Mr Carroll

RESERVED MATTERS APPLICATION FOR ERECTION OF 27 DWELLINGS PURSUANT TO OUTLINE PERMISSION 2017/92233 FOR ERECTION OF UP TO 34 DWELLINGS

LAND AT ABBEY ROAD NORTH, SHEPLEY, HUDDERSFIELD, HD8 8DY

Thank you for your consultation regarding the above reserved matters which was received on 25 November 2019.

We have reviewed the following amended information submitted with the application;

- Amended FRA by ARP associates, sent in email dated 18 November 2019, reference 1305/11

Environment Agency Position

Based on our review of the above we maintain our holding objection to the proposal per our response to the previous application 2019/91638. Our detailed comments are as follows.

Finished Floor Levels and 1% flood probability.

It is not clear in the Statement of Flood Risk Assessment what the 1% probability (100 year) level is or how this has been assessed

Although the properties and access road appears on the edge of the EA flood zone 3 map plotted in drawing reference 00-103, there is low confidence in the quality of the flood zone outlines in this area as they are based on a National Generalised model.

At our meeting with the consultant and developer on the 6 March 2019 reference 1305/11 the previous estimate of the 1% probability level of 146 mAOD was noted as incorrect and a level of 148 mAOD was the revised 1% probability level based on the topographic survey and an overlay of the EA flood map. However the Statement of Flood Risk Assessment says under points 2 & 3 the estimate of the 1% probability level of 148 mAOD is incorrect.

The Statement of Flood Risk indicates finished floor levels will be set at 148.3 and 148.45 mAOD at the site boundary and will be above the 100 year plus climate change plus 600mm, therefore it is not clear what the 1% probability level is or what climate change allowance using the latest guidance at the following link has been used climate change allowances

We note from the topographic survey and as per our discussion on the 6 March that there is an area to the East of the site where topographic levels are around 146 mAOD, however this area appears outside of the EA flood Zone 2 & 3 outlines.

The drawing reference 00-105 within the Statement of Flood Risk Assessment shows a purple line indicating the 148 mAOD contour line extends further than this Eastern area of the site but is shown not to be in FZ2 or 3

As indicated above there is low confidence in our flood map outlines in this area and this evidence indicates they may be under estimating the risk. This is why we ask that a more detailed assessment of the flood risk to the site is made regarding what the 1% probability level is and how this compared to the topographic survey and EA flood map. An explanation must be provided of the methodology used to reach the estimated 1% level and what the FFL will be based on this plus an allowance for climate change plus 600mm.

Compensatory Storage

We note an area above the culvert is to be lowered to provide compensatory storage on the drawing 00-103, the purpose and calculation for this is unclear.

Access and egress roads to the development are close to the area shown on map 00-103 being lowered for compensatory storage this along with opening up the culvert might have impacts in terms of the Emergency access/egress to the site. As this is an Emergency Planning issue we recommend this is discussed with the Flood Risk, Drainage and Emergency Planning Teams at Kirklees Council.

Transfer of flood risk to others

As per our previous objection it is not clear what site levels are being re profiled to accommodate raising finished floor levels. The FRA and topographic survey need to show any changes in existing ground levels and compare this to proposed ground levels, finished floor levels and the flood risk to the site from all sources

The FRA needs to demonstrate that development of the site does not alter existing flood flow routes through the site and does not increase the flood risk within the site, transfer flood risk to others or be allowed to spill into nearby watercourses

Advice to LPA

We note that a non-main river culvert runs through the site. The Flood Risk and

Cont/d..

Drainage Teams at Kirklees Council as the Lead Local Flood Authority should deal with matters such as the de-culverting proposal.

Yours sincerely

Mr Fraser Tomlinson (sent on behalf of Tim Crawshaw)
Sustainable Places - Planning Advisor

Direct dial 020 847 48679
Direct e-mail Tim.Crawshaw@environment-agency.gov.uk

End

A T T A C H M E N T 4

ARP letter – 1305/11/ARPjc - 20th January 2020

Chartered Consulting Engineers

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Mr T Crawshaw
Environment Agency
Lateral
8 City Walk
Leeds
LS11 9AT

BY E-MAIL

Your Ref: RA/2019/140189/02-L01

Our Ref: 1305/11/ARPjc

20th January 2020

Dear Tim

Camstead Ltd
Abbey Road North, Shepley, Huddersfield, HD8 8DY
Planning Application Reference 2019/91638

We are in receipt of a copy letter, dated 23rd December 2019, to Kirklees Council regarding the above planning application and your continued objection to the proposal based on the points raised in your letter. We also refer to our telephone conversation and, as agreed, we are writing with our explanation which will hopefully satisfy the concerns raised regarding the flood zone level assessment and development proposals. The main points we wish to raise are as follows:-

1. You will recall that we requested and paid for a meeting with Karen Robson and yourself in March 2019 to explain the interpretation of the flood model, Flood Zone 3 boundaries and the finished floor levels based on the flood level and 600mm that the discussion identified our interpretation of the Flood Risk and that the proposed layout and floor levels would be acceptable.

2. The Fairhurst's Flood Risk Assessment Report utilised the topographical survey and the Environment Agency Flood Map to state that the 1 in 100 year plus climate change storm level was 148.0m A.O.D. The report formed part of a planning application in 2017, which was approved and, therefore, we were of the opinion that the method of determining the flood level had been accepted by the Environment Agency.

3. When we marked the 148.0m contour on the topographical survey for the site, this showed there was much a greater area affected than shown on the Flood Map. If this level was utilised across the site, then the development would be compromised and the site would become unviable. Therefore, we compared the Flood Map in relation to the topographical survey, in conjunction with the Architects for the scheme (Enjoy Design), to prove that the 148.0m level determined by Fairhurst's was considered to be flawed.

Managing Director: Andrew Radcliffe BEng (Hons) CEngMIStructE
Directors: John Race BSc (Hons) CGeol FGS EurGeol • Andy Hawkin BSc (Hons) IEngAMIStructE
Associate Directors: Jessie Davey BSc (Hons) PhD RPGeo • Ngoc Phan Miller BA (Hons) • Adrian Houlston BEng (Hons) MEng CEng MIStructE • Martin Ingram MCIHT

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4. In view of the above, we located all the properties within Flood Zone 1 in relation to the Flood Map and prepared a detailed level proposal for the final layout. A copy of the latest drawing from Enjoy Design is attached and you will see that the lowest floor level is 148.4m on the northwestern corner of the site where the flood level in relation to the topographical survey is much lower than the 148.0m contour. In view of this interpretation of the Flood Zone Map and the previous approval of the Fairhurst's Report, we would hope that you are able to accept that the 1% probability level has been assessed correctly and that there is more than 600mm freeboard to allow for climate change up to the finished floor levels of the properties.

5. The proposed layout submitted to the Planning Authority showed that all the properties and adjacent roads and private drives, apart from a small area adjacent to plot 26 were located in Flood Zone 1. However, in consultation with the Planning Authority, there has been a need to introduce a turning head on the private drive opposite plot 18 and this encroaches into the Flood Zone 2 and 3 boundaries. Consequently, we need to provide compensatory storage for these areas and this will be created to the east of the site beyond plot 21 where the land falls within Flood Zone 1. A detailed calculation of the loss of the Flood Zone 3 volume and proposed compensation will be provided under condition of the planning approval.

6. In view of the latest layout and the interpretation of the Flood Map, it can be seen that there is no transfer of Flood Risk to others downstream of the watercourse or into the adjacent watercourse.

7. We note your comment regarding the non-main river culvert and can advise you that, as part of the consultations with the Land Drainage Authority, it has been agreed this culvert will be opened up to form a natural watercourse as part of the planning approval. However, the exact detail of the opening up cannot be detailed until excavations have been undertaken to determine the depth of the culvert on the eastern side of the site, although indicative assessments are shown as part of the planning submission.

We hope that the above refreshes the discussions undertaken at our meeting in March 2019, where we considered that all of the above was discussed. However, the detailed design of the layout was not finalized at that time and the attached drawing should give more comfort to the fact that there is no encroachment on the properties into Flood Zone 3, apart from the private drives adjacent to plots 18 and 26, and that compensatory storage can be provided to the east of the development for this area. We also consider that the finished floor levels to the properties are set at a level which would give more than a 600mm freeboard above the assessed 1% probability level and that you are able, in this instance, to remove your objection to the planning application.

We would be more than willing to discuss this further over the telephone or at a meeting if you consider that this is more appropriate.

Yours sincerely
for ARP ASSOCIATES

A R Poyser

Enc

Copy to: Mr C Carroll, Kirklees Council
Mr S Holman, Camstead Ltd
Mr R Irving, ID Planning
Mr W Dodds, Enjoy Design



Site Plan

1 : 500

Areas

Overall Site
1.78ha (4.4acres)

Site allocated for housing
0.95ha (2.3acres)

P.O.S (Public Open Space) requirment
@ 0.2ha per 50 units
= 0.11ha (0.27) required

P.O.S acheived
0.83ha (2.1acres)

Units

Total Number
27

Of which are affordable
05

Key

- Block Paving Type 1
- Block Paving Type 2
- Slab Paving
- 2m Footpath
- 5.5m Adopable Road
- Gas meter
- Electric meter
- Electric charge point
- Swift Brick
- Small bird box
- Bat box wall
- Bat box tree
- Retaining wall
- Dwarf wall
- 1.8m Close boarded fence with 300mm trellis. All gates shown to be lockable.
- Hedgehog access

Electric Vehicle Charging Points

EVCP to be 32Amp with Type 2 Mercedes connections, Mode 3 (on a dedicated circuit).

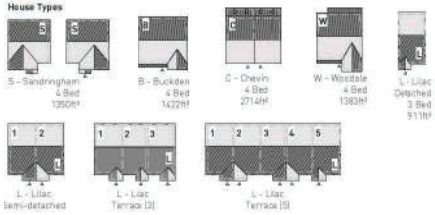
(GIA) House Type Schedule

House Type	Quantity	Total Area m2	Total Area sqft
Buckden	3	396.2 m²	4265 ft²
Chevin	2	504.3 m²	5428 ft²
Chevin - Stepped	1	252.2 m²	2714 ft²
Lilac - Detached	1	84.6 m²	911 ft²
Lilac - Semi-detached	3	508.2 m²	5470 ft²
Lilac - Terrace (3) Stepped	4	254.5 m²	2740 ft²
Lilac - Terrace (5)	1	424.3 m²	4567 ft²
Sandringham	2	250.8 m²	2700 ft²
Woodale	1	128.5 m²	1383 ft²
		2803.7 m²	30179 ft²

Parking Allocation

2 No. spaces per each 2-3 bed dwelling
3 No. spaces per 4 bed dwelling
1 No. visitor parking per 4 dwellings

House Types



1 : 500
0 10 20 30m

Contractor must verify all dimensions on site before commencing any work or shop drawings. If this drawing exceeds the specified plant in any way the Architects are to be informed before the work is initiated. Only figured dimensions to be taken from this drawing. Do not scale off this drawing. Drawings based on Ordnance Survey and / or existing record drawings design and drawing content subject to Site Survey, Structural Survey, Site Investigations, Planning and Statutory Requirements and Approvals. Authorised reproduction from Ordnance Survey Map with permission of the Controller of Her Majesty's Stationery Office. Crown Copyright reserved Enjoy Design Ltd.

Notes

00 Series General Arrangement Notes

1. Any areas indicated on the plans are approximate. They relate to the likely areas of the building at the current state of the design and are calculated using the stated sq(NIA) method from the Code of Measuring Practice 5th Edition RICS/IVA. Any decision to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or the like, should include due allowance for design development and building tolerances. Floor areas are subject to Planning, Building Control and other statutory approvals.

2. Any structural, services or fit out detail shown is for coordination only, refer to relevant Consultants/Client information for details.

3. Refer to Enjoy (RIBS) for full outline performance specification of Architectural Elements.

4. THE CONTENT OF THIS DRAWING IS FOR DESIGN INTENT AND REQUIRES FURTHER DESIGN DEVELOPMENT AND COORDINATION WITH ALL RELEVANT CONSULTANTS, SUB-CONTRACTORS, SPECIALIST DESIGNERS AND STATUTORY AUTHORITIES.

5. Line of drainage easement, site boundary and extents of flood zone 01 approximate based on overlaid PDF information. Unconfirmation of exact positions amendment to the proposed layout sheet may be required.

Rev.	Des.	By	Date	Ch
N	Plot 11, 12, 13 levels ammended	WD	15/01/2020	WD
M	Minor changes to plot 6, 7, 8, 9, 10, 11, 12 & 13	MH	11/12/2019	WD
L	Level removed on footpath link	WD	25/11/2019	WD
K	Foot path extended 2m beyond ramp	WD	19/11/2019	WD
J	Alterations to turning head and pavement at ramp	MH	30/09/2019	WD
H	House types changed/added & minor level changes, turning head added, road partly changed to shared surface & adjacent development added	MH	26/09/2019	WD
G	Cycle/pedestrian path, bin collection points added, Plot 22 garden size increased	MH	12/07/2019	WD

Status: Planning

The Old Brewery
High Court
Leeds
LS2 7EB
Tel: 0113 242 3622
www.enjoy-design.co.uk

Client: Scotfield, Ltd	Job No: 18,019
Project: Abbey Road, Shipley	
Title: Proposed Site Plan	
Date: 08/23/19	Scale: As indicated@A1
Checked by: WD	
Drawing No: 00-103	Drawn By: MH
Revision: N	

ENJOY DESIGN

A T T A C H M E N T 5

Environment Agency email – 3rd February 2020

From:
Sent: Monday 3 February, 2020 3:11 pm

Subject: Abbey Road North

Dear Alan,

We have reviewed the revised information for application enquiry 2019/91638 (i.e. the original FRA). In order for us to respond formally, we require the following:

Although you say that a detailed calculation of the loss of flood storage volume and proposed compensation will be provided under condition of planning approval, we require confirmation at this point on what volume storage is required below the level of 146.5 mAOD, which we consider to be floodplain.

Please also, can you send a copy of your response to the planning officer.

Thank you

Tim Crawshaw
Sustainable Places – Planning Advisor
Environment Agency | Foss House, Kings Pool, 1-2 Peasholme Green, YO1 7PX

tim.crawshaw@environment-agency.gov.uk
Tel: 020 84748679







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Mr T Crawshaw
Environment Agency
Lateral
8 City Walk
Leeds
LS11 9AT

BY E-MAIL

Your Ref: RA/2019/140189/02-L01

Our Ref: 1305/11/ARPjc

11th February 2020

Dear Tim

Camstead Ltd
Abbey Road North, Shepley, Huddersfield, HD8 8DY
Planning Application Reference 2019/91638

Further to your recent e-mail correspondence regarding the development at the above site, we are pleased to attach calculations and sketch drawings showing the proposed development, the loss of flood plain and the flood compensation proposals to prevent the passing of floodwater downstream onto third party land.

You will see that we have utilised the 146.5m AOD contour, as identified in your correspondence, and calculated the loss of flood plain volume where the new development encroaches into the Flood Zone 3. We have assumed that bankings will be at a 1 in 3 grade and trust that you are in agreement with the proposals to regrade the Flood Zone 1 area to provide flood compensation.

However, if you wish to discuss the matter further, please do not hesitate to contact us.

Yours sincerely
for ARP ASSOCIATES

A R Poyser

Encs

Copy to: Ms K Robson, Environment Agency
Mr C Carroll, Kirklees Council
Mr S Holman, Camstead Ltd
Mr R Irvine, ID Planning
Mr W Dodds, Enjoy Design

l4

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Client: CAMSTEAD.	Project No: 1305/11	Sheet 1 of 9
Project: ABBEY ROAD NORTH, SHIPLEY	Calc By: ARP	Date: 11/2/20
Element: FLOOD COMPENSATION	Chkd By:	Date:

GENERAL

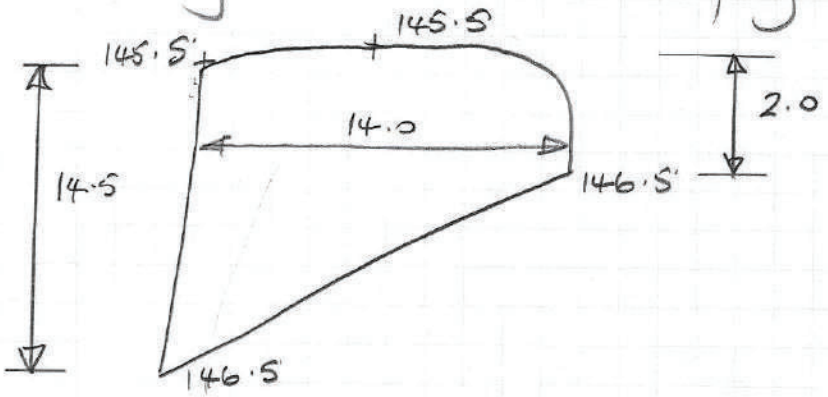
In consultation with the Environment Agency, the floodplain level on the site has been determined at 146.5 m AOD.

The External Works Level drawing with the 146.5m contour is presented on page 2.

LOSS OF FLOODPLAIN

a) Turning Head Opposite Plot 18

Using the extract on page 3 (Scale 1:250).



$$\text{Area} = 14.0 \times \frac{(14.5 + 2.0)}{2} = 115.5\ m^2$$

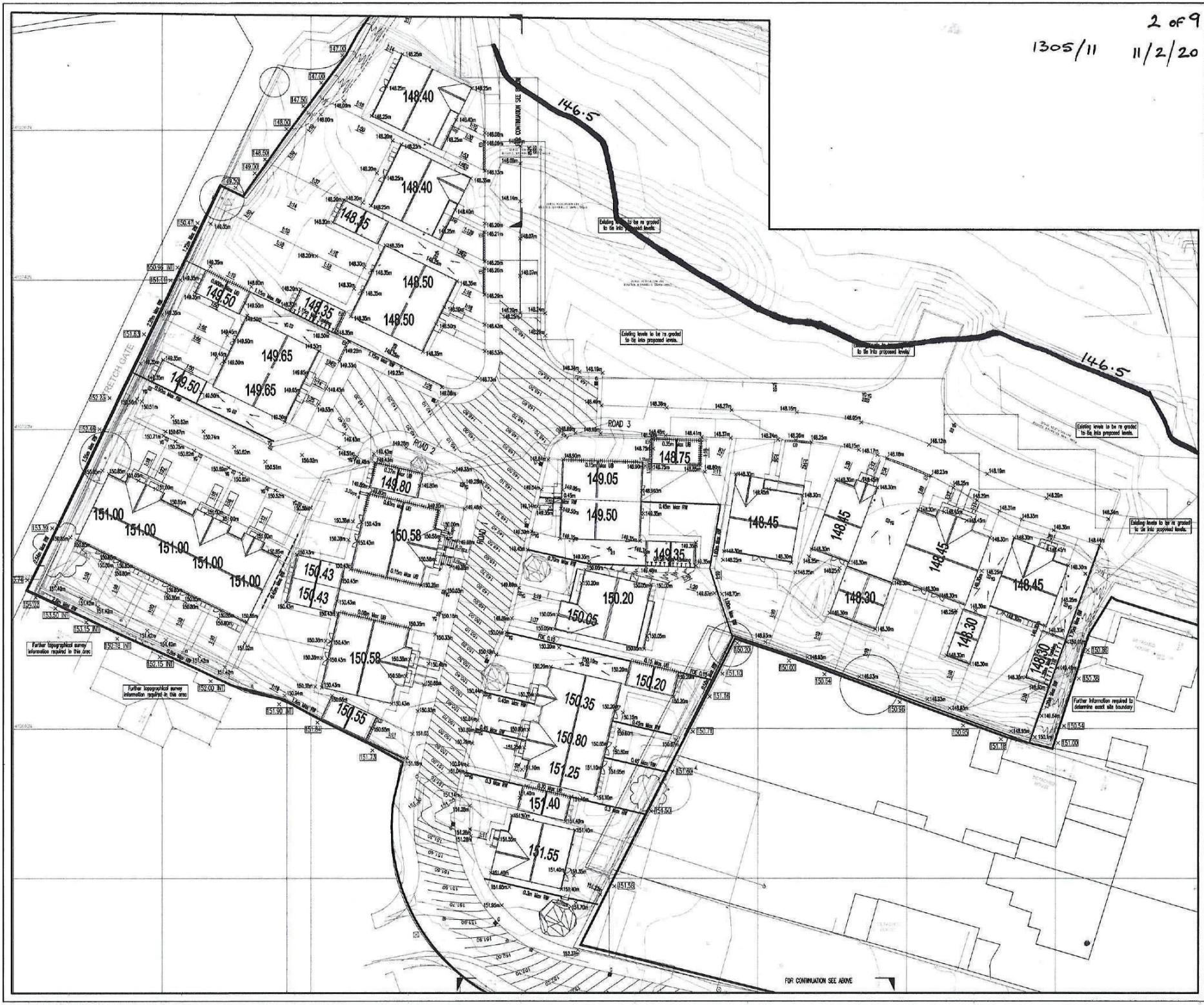
$$\text{Depth} = \frac{146.5 - 145.5}{2} = 0.5\ m$$

$$\text{Volume} = 115.5 \times 0.5$$

$$= \underline{\underline{57.8\ m^3}}$$

2 of 9

1305/11 11/2/20



N O T E S

KEY

FFL 0.00	Finished floor level
+ 0.00	Proposed ground level
FOE	Flag on edge
RW	Retaining wall
UB	Extra facing brickwork – underbuild
00.00	Approx existing level
	Max 1 in 3 batter (unless noted otherwise)
G	Gully
CD	Channel Drain (min B125 grade cover)
YG	Yard gully
1:12	1:12 Ramp (Arrow to low)

- Levels/Gradients/Heights may vary to suit working conditions
- For typical road construction details see drawing No. 1305/11/04.
- Where levels to doors are not provided, a level threshold should be provided.

SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES

Rev	By	Date	Revision	Chk	Apvd
B	BHB	31.10.19	Retaining wall to plot 22 revised.	ARP	ARP
A	RB	31.10.19	Design revised to new layout	TC	ARP
/	DJG	10.04.19	Issued for approval	TC	

ARP ASSOCIATES
Chartered Consulting Engineers
Northwest House • 5 & 6 Northwest Business Park • Servia Hill, Leeds • LS6 2QH

TITLE
EXTERNAL WORKS LAYOUT

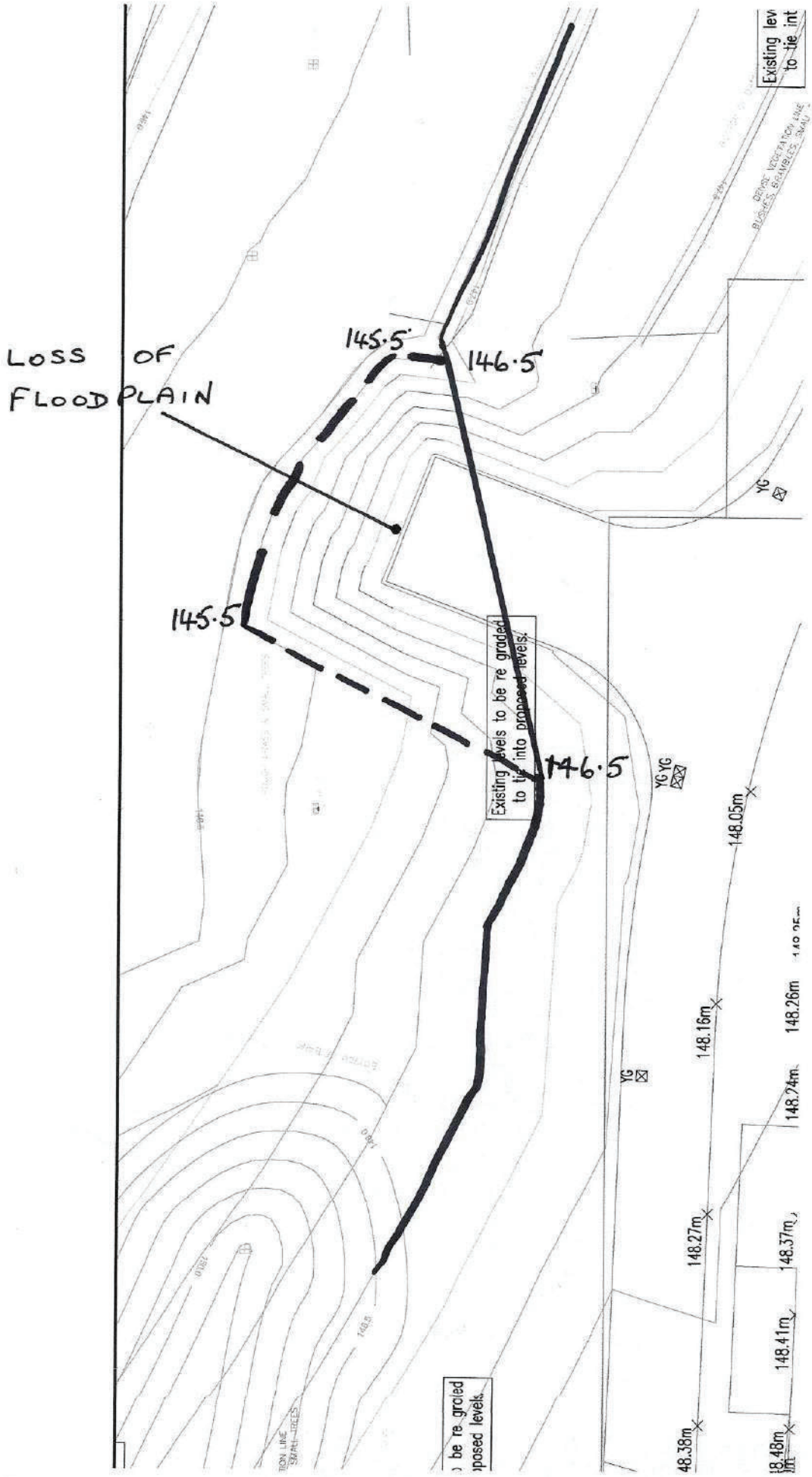
PROJECT
ABBEY ROAD NORTH, SHEPLEY

CLIENT
CAMSTEAD

DRAWING STATUS
PRELIMINARY

Scale	Date	Drawn	Chk
[redacted]	APR 19	DJG	TC

Drg. No. 1305/11/08 Rev B


LOSS OF FLOODPLAIN
145.5
146.5
145.5
146.5
Existing levels to be re graded to tie into proposed levels.
Existing lev
to tie int
YG
YG YG
148.05m
148.16m
148.26m
148.27m
148.37m
148.41m
48.38m
148.48m

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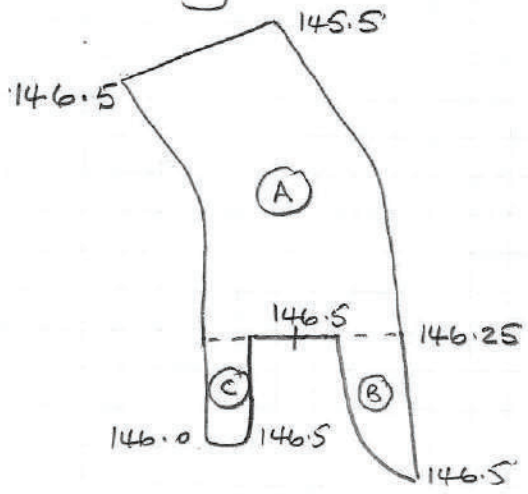
Client: CAMSTEAD	Project No: 1305/11	Sheet 4 of 9
Project: ABBEY ROAD NORTH, SHIPLEY	Calc By: ARP	Date: 11/2/20
Element: FLOOD COMPENSATION	Chkd By:	Date:

LOSS OF FLOODPLAIN CONT.

b) Footpath Link to Stretchgate

Using the drawing 1305/11/17 on page 5.



Area A = 17.0×5.5 = $93.5\ m^2$

Depth A = $\frac{(146.5 - 145.5)}{2}$ = 0.5 m.

Area B = $7.0 \times 3.0 \times \frac{1}{2}$ = $10.5\ m^2$

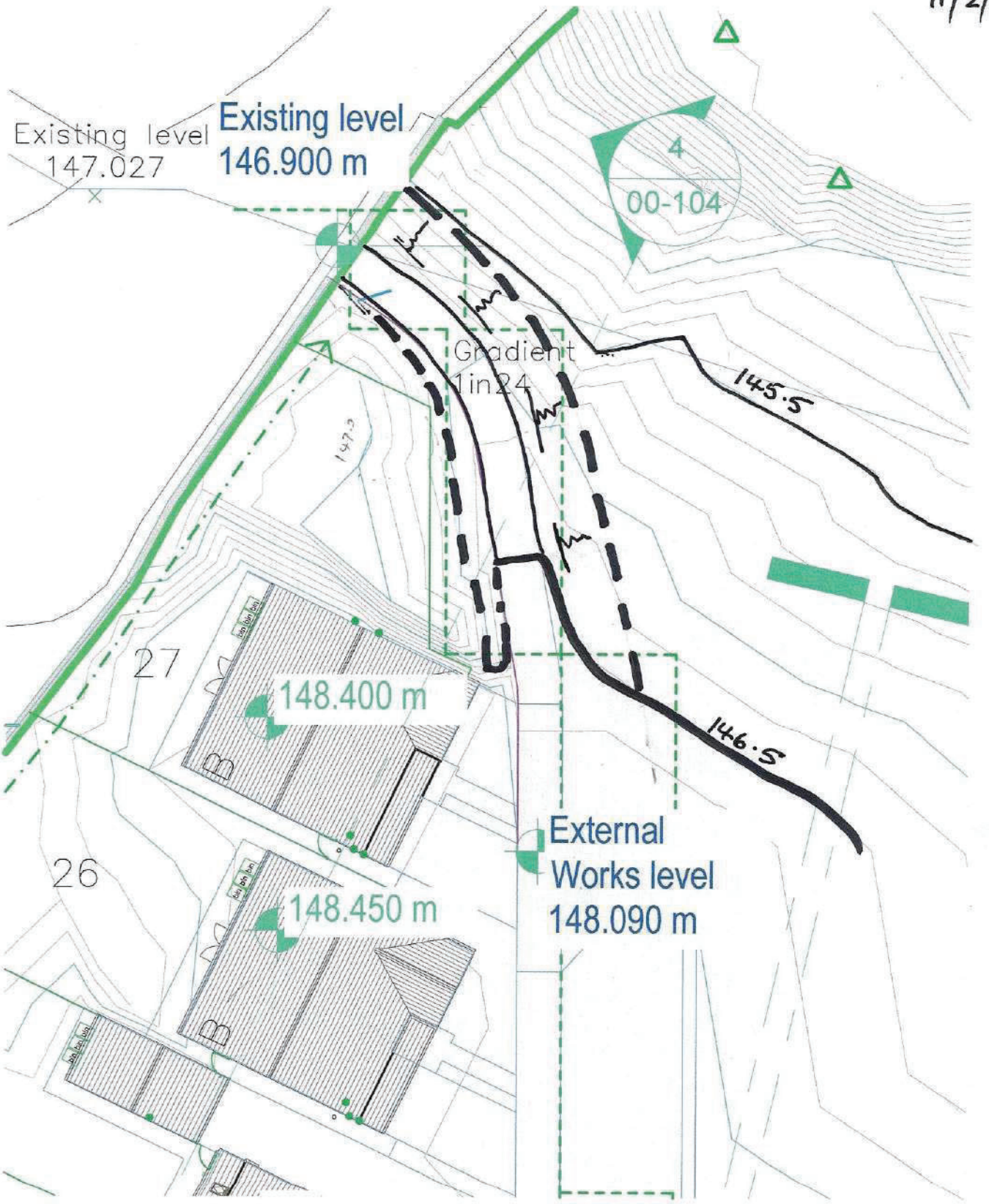
Depth B = $\frac{(146.5 - 146.25)}{2}$ = 0.06 m.

Area C = 5.0×1.0 = $5.0\ m^2$

Depth C = $\frac{(146.5 - 146.0)}{2}$ = 0.25 m

Volume = $(93.5 \times 0.5) + (10.5 \times 0.06) + (5.0 \times 0.25)$

= $48.6\ m^3$



ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN

Rev	By	Date	Amendment	Chk
/	BHB	21.11.19	Issued for approval	ARP

Title
FOOTPATH LINK
TO STRETCH GATE

Project/Client
ABBEY ROAD NORTH, SHEPLEY
CAMSTEAD

Scale 1:250 @ A4

Drg. No. 1305/11/17

Date NOV 19

Drawn BHB

Chk. ARP

Rev /

ARP ASSOCIATES
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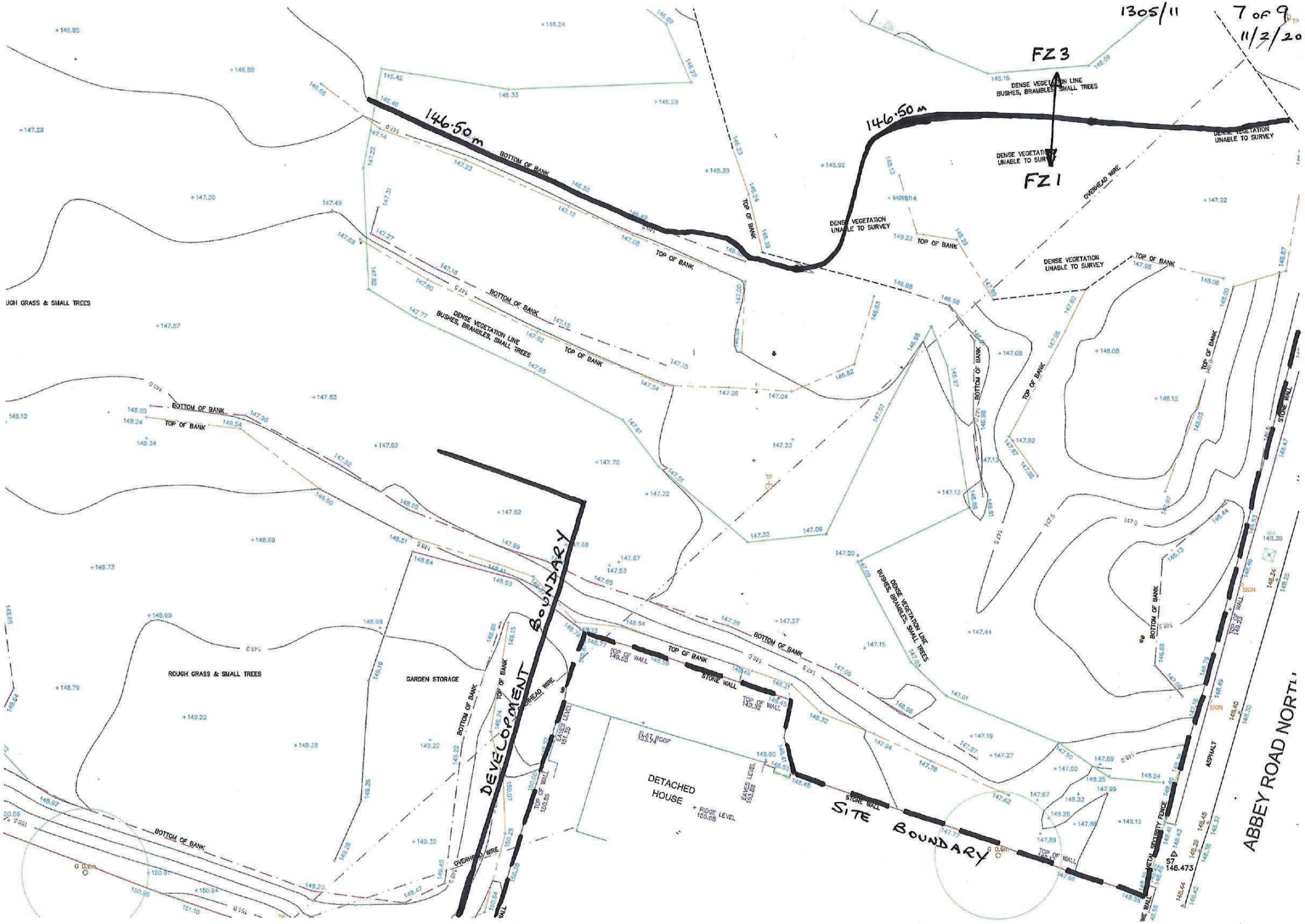
Client: CAMSTEAD.		Project No: 1305/11	Sheet 6 of 9
Project: ABBEY ROAD NORTH, SHIPLEY		Calc By: ARP	Date: 11/2/20
Element: FLOOD COMPENSATION.		Chkd By:	Date:

FLOOD COMPENSATION.

Total Volume of Flood loss = 57.8 + 48.6.

= 106.4 m³

This volume needs to located in Flood Zone 1 located in the SW corner. An extract of the topographical survey showing the 146.5m AOD boundary for Flood Zone 1 and flood zones 2/3 is presented on p.7. The ground level in this area should be reduced to below 146.5m AOD. to accommodate the volume of 106.4 m³ and provide satisfactory flood compensation and prevent flood water from passing onto third party land downstream.


FZ3
FZ1
146.50m
146.50m
DENSE VEGETATION LINE
BUSHES, BRAMBLES, SMALL TREES
DENSE VEGETATION
UNABLE TO SURVEY
OVERHEAD WIRE
TOP OF BANK
BOTTOM OF BANK
ROUGH GRASS & SMALL TREES
GARDEN STORAGE
DEVELOPMENT BOUNDARY
SITE BOUNDARY
STONE WALL
DETACHED HOUSE
RIDGE LEVEL 155.66
EAVES LEVEL 151.55
EAVES LEVEL 153.68
FLAT ROOF 153.74
ASPHALT
SIGN
ABBEY ROAD NORTH

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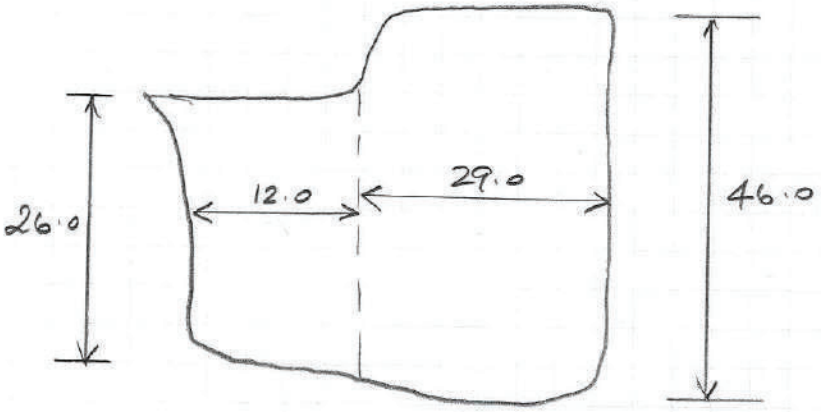
Client: CAMSTEAD.		Project No: 1305/11	Sheet 8 of 9
Project: ABBEY ROAD NORTH, SHIPLEY		Calc By: ARP	Date: 11/2/80
Element: FLOOD COMPENSATION		Chkd By:	Date:

Area for Flood Compensation

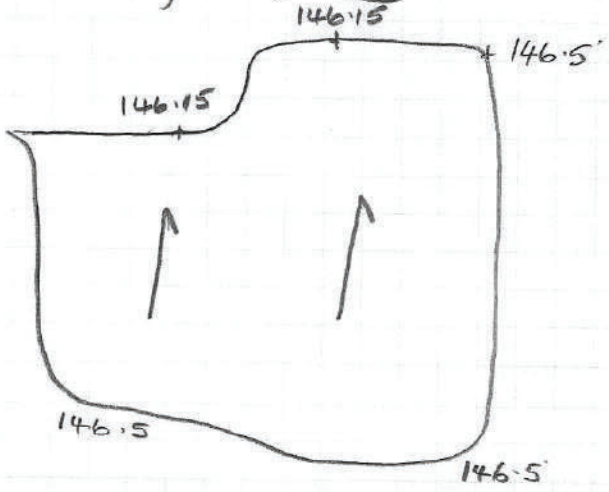
Assuming an embankment slope of at least 1 in 3 from the site/development boundary, the flood compensation area is presented on the plan on page 9.



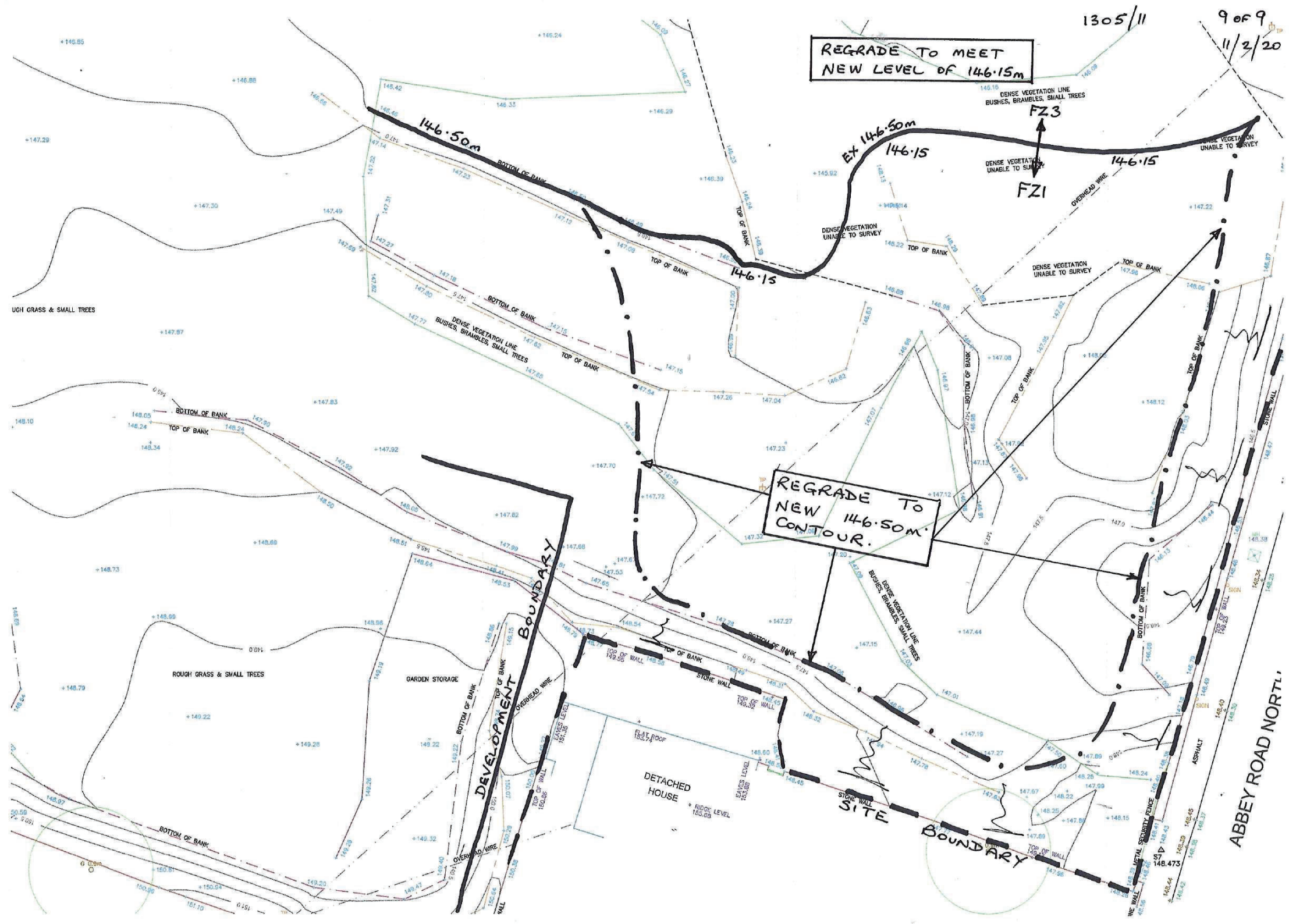
Area = (26.0 × 12.0)
+ (46.0 × 29.0)
= 1646 m²

∴ Average depth = $\frac{106.4}{1646}$ = 0.065 m.

Therefore, regrade area as follows



Available volume is between 106.4m³ - 123.5m³


REGRADE TO MEET NEW LEVEL OF 146·15m
146·50m
BOTTOM OF BANK
TOP OF BANK
DENSE VEGETATION LINE BUSHES, BRAMBLES, SMALL TREES
DENSE VEGETATION UNABLE TO SURVEY
FZ3
FZ1
EX 146·50m
146·15
OVERHEAD WIRE
REGRADE TO NEW 146·50m CONTOUR.
ROUGH GRASS & SMALL TREES
GARDEN STORAGE
DEVELOPMENT BOUNDARY
DETACHED HOUSE
FLAT ROOF
EAVES LEVEL
RIDGE LEVEL
STONE WALL
TOP OF WALL
SITE BOUNDARY
ASPHALT
METAL SECURITY FENCE
SIGN
ABBEY ROAD NORTH

A T T A C H M E N T 6

ARP letter - 1305/11/ARPjc - 11th February 2020